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# Contents

- 6 Challenges of Innovation Networks: Empirical Findings  
*Jukka Ojasalo*
- 18 Colour and Young People Fashion  
*Liliana Pina, José M. Lucas, Rui A. L. Miguel, Madalena Pereira & Isabel Trindade*
- 27 Consumer's Multi-Channel Choice in relation to Fashion Innovativeness and fashion items  
*Ihn Hee Chung*
- 35 Intensity of Italy's Agri-food trade with countries outside the EU Mediterranean  
*Maria Crescimanno, Antonino Galati, Dario Siggia & Domenico Farruggia*
- 43 The role of information and communication technologies and logistics organization in the economic performance of Sicilian fruit and vegetable enterprises  
*Emanuele Schimmenti, Antonio Asciuto, Valeria Borsellino & Antonino Galati*
- 51 Sustainable tourism in the rural areas of a Southern Italian region  
*Antonio Asciuto, Di Franco, C. P. & Emanuele Schimmenti*
- 60 The internationalization of retailers and manufacturers in the footwear industry: Different approaches in different countries  
*Silvio Cardinali & Marina Gigliotti*
- 73 Antecedents of online professional services' perceived usefulness: An empirical research  
*Giannis Kostopoulos, Ioannis Rizomyliotis & Kleopatra Konstantoulaki*
- 82 Keeping Experts Focussed - The biggest management challenge  
*Rainer Erne*
- 105 Environmental Reputation of Food Production Industry and Its Financial Connotations  
*Deak, Zs & Hajdu, I*
- 117 Cost-of-capital of business units: Comparison of methodology in previous empirical research  
*Dennis Schlegel, Aftab Dean & Bernd Britzelmaier*
- 132 Interaction and synergy of marketing management and quality management in Croatian companies  
*Diana Plantić Tadić, Boris Jurič & Branka Šuput*
- 142 The Impact of Customer Relationship Marketing On Customers' Satisfaction for the Banking Industry in Jordan  
*Tareq N. Hashem*

- 154 Fashion Design and Visual Merchandising attributes in E-commerce  
*Paulo Martins, Madalena Pereira, Susana G. Azevedo, Rui A. L. Miguel & José Lucas*
- 167 Trust in Learning Organizations  
*Antje Duden*
- 176 Is the Student Fashion Show Delivering All It Can?  
*Mariné Aghekyan, Dong-Eun Kim & Suzanne Marshall*
- 185 How Are Functional Foods Perceived in Japan? Empirical Study of Young Japanese Consumers' Behavior  
*Mitsunori Hirogaki*
- 200 Are Hungarian customers quality conscious?  
*Istvanne Hajdu & Marta Notari*
- 210 New Itinerancy: the Potential of Geocaching for Tourism  
*Christèle Boulaire & Guillaume Hervet*
- 219 Analysis of familiarity and ways of couchsurfing marketing as a new tourist form in Croatia's student population  
*Boris Juric, Dijana Vukovic & Nina Markovac*
- 238 Competitive landscape of the educational market: A managerial perspective  
*Magdalena Krzyzanowska & Jolanta Tkaczyk*
- 251 Using Delphi methodology in information system research  
*Steffen Laick*
- 260 Innovative business model in the parquet industry. An Italian leading company: Margaritelli S.p.A. and its brand Listone Giordano.  
*Luca Ferrucci & Antonio Picciotti*
- 273 A literature review on corporate social responsibility: definitions, theories and recent empirical research  
*Patrick Kraus & Bernd Brtitzelmaier*
- 288 Blogtrip # Incostabrava or the use of bloggers as a destination image ambassadors  
*Luís Prats & Jaume Marín*
- 299 Model to optimize recommendation engines in off-line retail settings  
*Sebastian Hanhues, MiemieStruwig & Reiner Kurzhals*
- 305 Short-term financing management  
*Elenora Kontus*
- 316 Shopper Satisfaction Monitor in a border area  
*Ulrich Scholz*

- 327 Educational offer and its positioning: A comparison of the perception of customers and managers  
*Jolanta Tkaczyk & Magdalena Krzyzanowska*
- 342 Labour's language skill in the liberalisation era: A case of Thai vocational students' English proficiency  
*Wuthiya Saraithong & Kanokwan Chanchaoenchai*
- 364 Financial ratios as an evaluation instrument of business quality in small and medium-sized enterprises  
*Katarina Žager, Ivana Mamić Sačer & Nikolina Dečman*

## Challenges of Innovation Networks: Empirical Findings

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### *Abstract*

*The purpose of this study is to increase knowledge of challenges of innovation networks. The literature includes a great deal of research on both innovation and business networks, but the empirical knowledge of their intersection, namely innovation networks, is still scarce. There is a clear knowledge gap on challenges of innovation networks, in particular. The method of this study is based on multiple case study approach. It draws on analysing qualitative data obtained from SMEs in the software industry with experience in innovation networks. Empirical material was obtained from the case companies in terms of in-depth interviews of key people involved in new product development. The interviews were taped and transcribed for analysis. As a result, this study identified several challenges related to innovation in the network context. They are conflict of interest and opportunism, educating/learning in the network, unforeseen gain to competitors, network partner's economic problems, defining responsibilities and roles, lack of coordination and leadership, holding schedules, lack of written contracts, unreliable partners/scam, ability to tackle one's own errors, and exaggerating skills and capabilities. The article has the following structure. First, based on the literature, it discusses the nature of innovation management, management of business networks, and innovation networks. Then, it explains the empirical method of this study. Next, it explains the findings by describing the various challenges of innovation networks identified in the study. After that, it discusses the research implications by explaining the theoretical contribution and managerial implications. Then, it draws the final conclusions.*

*Keywords: Innovation, networks, challenges, collaboration, software, SME*

### Introduction

“Innovation network” refers to a set of actors mobilized by a focal company for R&D activity (Ojasalo, 2008). In a network of actors, innovation emerges from collaborations or alliances for new developments (Szeto, 2000).

Innovations are determined by the by the network in which the firm is embedded (Möller, Partanen, Rajala, Westerlung & Svahn, 2005; Mohannak, 2007). The research has identified several benefits that can be received from innovation networks, such as risk sharing, access to new markets and technologies, commercialization speed, accumulation of complementary assets, protection of property rights, and the role networks play as avenues to external knowledge (Pittaway, Robertson, Munir, Denyer, and Neely, 2004). On the other hand, the literature also includes findings suggesting that networked cooperation as such is no guarantee for successful innovation and products developed in partnerships are no more successful than those developed in-house (Campbell and Cooper, 1999). Clearly, there is need to examine innovation networks further. The present empirical study responds to this need by focusing on challenges of innovation networks.

The rest of this article is organized as follows. First, it discusses the nature of networks. Then, it discusses innovation. Next, it explains the method used in the present study. Then, it brings forward the empirical findings. After that, it discusses the contribution of the study. Then, it draws the final conclusions.

## Networks

Even though the term network is widely used in the scientific literature, the usage of this concept includes some incoherency. Also, there are several related concepts that are more or less synonyms to the term network, such as strategic alliances, partnerships, interorganizational relationships, coalitions, cooperative arrangements, or collaborative agreements. In spite of differences, nearly all definitions refer to certain common themes, including social interaction (of individuals acting on behalf of their organizations), relationships, connectedness, collaboration, collective action, trust, and cooperation (Provan, Fish and Sydow, 2007). Next, the basic characteristics of networks are briefly discussed.

A business network consists of “nodes” or positions (occupied by firms, households, strategic business units inside a diversified concern, trade associations, and other types of organizations) as well as “links” manifested by interaction between positions (Thorelli, 1986). The links are usually called relationships. A network can be approached in terms of its activities, resources, and actors (Håkansson and Snehota, 1995). The activities and resources in two different relationships can complement each other, or they may be in competition. Similarly, actors can use the existence of complementarity or competitiveness in their relationships in different ways when interacting with each other.

According to Brass, Galaskiewicz, Greve and Tsai (2004), network refers to a set of nodes and the set of ties representing some relationship, or lack of relationship, between the nodes. Davis (2006) says that a simple definition of a network is that it consists of nodes and ties. Nodes refer to actors, such as persons, teams, or organizations. Ties refer to the relationships among the nodes.

According to Provan, Fish and Sydow (2007, p. 485), unique network-level properties may include density, fragmentation and structural holes, governance, centralization, and cliques. Density relates to the following questions.

- What is the overall level of connectedness among organizations in the network?
- Are some networks more fully connected than others?
- How much density is beneficial versus detrimental to effectiveness of the network?
- Higher levels of density are not necessarily advantageous, especially in light of the increased coordination burden placed on network members.

Fragmentation and structural holes relate to the following aspects.

- Are all or most network members connected, either directly or indirectly -through another organization-, or is the network broken into fragments of unconnected organizations, dyads, and cliques?
- Fragmented networks may exhibit connections among organizations that are themselves unconnected or only loosely connected to other clusters of connected organizations.
- This means that the network has many structural holes.

Governance includes the following aspects.

- What mechanism is used to govern and/or manage the overall network?
- Even if networks are considered as a distinct form of governance, the mechanism used can considerably vary and range from self-governance, to hub-firm or lead-organization governed, to a network administrative organization model.

Centralization relates to the following questions.

- To what extent are one or a few organizations in the network considerably more centrally connected than others?
- Highly centralized networks may be organized in a manner approximating a hub-and-spoke pattern, recently popularized as scale-free networks (Barbasi, 2002). Decentralized networks are far more dispersed, with links spread more evenly among members.

Cliques relate to the following aspects.

- What is the clique structure of the overall network? (Rowley, Greve, Rao, Baum, and Shipilov, 2005)
- How many cliques exist? Which types of organizations are involved? How large are the cliques?
- Are they connected to other cliques or fragmented?
- How much overlap is there across cliques, depending on the type of link involved (e.g., shared information or joint programs; Provan and Sebastian, 1998)? (Provan, Fish and Sydow, 2007, p. 485)

The boundaries of a business network cannot be defined exactly (Håkansson and Snehota, 1995). However, from the management perspective, however, it is necessary to focus the company's effort on certain meaningful part(s) of the network. Also, networks are evolving organism and their dynamics is caused by the fact that actors, relationships, needs, problems, capabilities, and resources change over time (Gulati, 1999; Ojasalo, 2002).

Considering the vast amount of literature on networks, surprisingly few studies have a clear management approach. Most of the literature is descriptive. According to Grabher and Powell (2004), only in a small number of cases are networks studied as a form of governance, regardless of whether the focus is on interorganizational networks in their broader institutional environment or taking a more managerial approach on "how to design, manage, and control networks in order to reduce uncertainties and improve competitive position." Yet, some studies can be found representing the management approach to networks.

- Thorelli (1986), refer to network management involving marketing, technology transfer, information exchange, accounting and finance, as well as public and interpersonal relations.
- Jüttner and Sclange (1996) talk about developing a network strategy which includes determining a) what is the strategic situation to be analyzed?, b) upon which actors to focus?, c) who determines the nature of the relationships?, d) what



part in the network does each actor play?, and e) what leverage and what steering potential does each actor have?

- Möller and Halinen (1999) refer to management of relationship portfolio. According to them (*ibid.*), network management includes four basic levels which are a) industries as networks level –involving network visioning; b) firms in networks level –involving net management, c) relationship portfolios level –involving portfolio management; and d) exchange relationship level –involving relationship management.
- Ford, Gadde, Håkansson, and Snehota (2002) refer to choices within the existing relationships as the first aspect of networking. They (*ibid.*) say that management in networks involves (a) network pictures, (b) networking, and network outcomes. Network pictures refer to the views of the network held by participants in that network. Network pictures represent the basis for the actors' perceptions of what is happening around them and of actions and reactions in the network. Networking encompasses all of the interactions of a company or individual in the network. Multiple network outcomes are continuously produced by networks, and the nature of network outcomes can be understood in terms of three dimensions. They are actors, activities, and resources.
- Ojasalo (2004) introduced the key network concept. A key network is a defined subnet, a defined set of access points to a larger unlimited network. The value received by the focal company, the company that is “focusing its effort” in the network, does not have to be created entirely in the key network; its creation is mobilized or received through the key network. Key network management includes (a) identifying a key network, (b) selecting strategies for managing the actors of a key network, and (c) developing and applying operational level methods for managing the actors of a key network.
- Järvensivu and Möller (2009) introduced contingency framework of network management. In this framework, the management functions in networks are framing, activating, mobilizing, and controlling.

## Innovation

The term “innovation” may have several meanings. It may refer to an outcome of an innovative process or to the innovative process itself (cf. e.g. Drucker, 1985). It may refer to both the process as well as the outcome of innovation activities. However, some authors have reserved the term “innovation” just for the result of the innovation process, and “innovation management” for the managerial activities that attempt to control the innovation process (Dreijer, 2002). In essence, innovation implies newness (Johannessen, Olsen and Lumpkin, 2001).

According to Organization for Economic Co-operation and Development (2005), innovation is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations. Innovation refers to creating something new and implementing it successfully at a market (Brown and Ulijn, 2004).

Several models have been suggested for describing the phases of innovation process. According to Donnelly, Berry and Thompson (1985), it consists of strategic guidelines, exploration, screening, comprehensive analysis, development and testing, and introduction. According to Ojasalo (2008, see also Ojasalo 2003), innovation process

includes strategy development of the new service; generating and screening ideas and selecting one for development; business analysis related to markets, internal conditions and profitability; development of the service concept covering planning the processes, resources, personnel and operations; testing the service; launch; and postlaunch monitoring and modifying the new service.

Innovation management concept encapsulates the management of the whole process of innovation from the idea generation stage through product or process development/adaptation to launch in the market or start. This includes both strategic and operational issues (Rothwell, 1992; Dickson and Hadjimanolis, 1998). Radical and incremental innovation are key concepts of innovation management. This relates to the uniqueness of the innovation. The contrast between radical and incremental innovation relates to the degree of change associated with the innovation and the resulting impact on a firm's perceived risk and existing core competencies (Chetty and Stangl, 2010). Radical innovation produce fundamental changes in the activities of an organization or an industry and represent clear departures from existing practices, while incremental innovations merely call for marginal departure from existing practices; they mainly reinforce the existing capabilities of organizations (Gopalakrishnan and Damanpour, 1997).

## Method

The present empirical study draws on the case study method. In general, this approach can be characterized as follows.

- *Holistic and detailed understanding:* The case study approach implies the detailed examination of a single example of a class of phenomena (Abercrombie, Hill and Turner, 1984). It allows an investigation to retain the holistic and meaningful characteristics of real-life events, such as organizational and managerial processes (Yin, 1984). According to Gummesson (2000, p. 86), "An important advantage with the case study research is the opportunity for holistic view. ..case research seeks to obtain a holistic view of a specific phenomenon or series of events."
- *Single and multiple case studies:* Case studies may involve both single and multiple cases (Yin, 1984; Eisenhardt, 1989). Single case studies have been used frequently and advocates of this approach propose that a single case would provide better theoretical insights than multiple-case research based on creating good constructs (Dyer and Wilkins, 1991). However, multiple case studies have also become popular in theory development. Based on Eisenhardt (1991), multiple cases are a powerful means to create theory because they permit replication and extension among individual cases. Replication means that individual cases can be used for independent corroboration of specific propositions helping researchers to perceive patterns more easily. Extensions refer to the use of multiple cases to develop more elaborated theory since different cases often emphasize complementary aspects of a phenomenon.
- *Qualitative and/or quantitative data:* The empirical evidence of a case study may be qualitative, quantitative, or both (Eisenhardt, 1989). Yin (1984) mentions the following sources of evidence in the data collection for case studies: interviews, direct observation, participant-observation, documentation, archival resources, and physical artefacts. Each form of empirical data require their own techniques for collection and analysis.
- *Purpose to provide description, develop theory, or test theory.* Based on Yin (1984), there may be descriptive, exploratory, and explanatory case studies. Thus, case studies can used to accomplish various aims: to offer description, to develop a theory,

and test a theory (Eisenrahardt, 1989). Developing a grounded theory (Glaser and Strauss, 1967) is, to the large extent, similar to theory development from case studies (Chetty, 1996). Thus, when the purpose of the case study is to develop (suggest) a theory the grounded-theory procedures and techniques are a usable way of conducting the study.

This paper is based on analysis of interviews from 15 case companies involved in innovation networks. The analysis of this paper is part of a larger multi-case research project on innovation management in the software business, in which the data were collected in two different phases from thirty seven companies; the first phase included fifteen and the second twenty two companies. One of the main themes in the case of the first fifteen companies was innovation in the network context. The companies examined were SMEs in the software industry. Empirical material was obtained from the case companies in terms of in-depth interviews of key people involved in new product development. Management of innovation networks was one of the central themes discussed in the first 15 interviews. The interviews were taped and transcribed for analysis. The present analysis draws on this data.

The analysis included two phases: open and selective coding of the data (Glaser, 1978). Firstly, in the open coding or initial coding phase, the emphasis was on identifying and grouping qualitative evidences related to various aspects of management of innovation networks. Differences in the management approaches of the examined companies were looked at, in particular. This coding phase resulted in an initial categorization of the qualitative evidence. Secondly, in selective coding or focused coding, the purpose was to make a deeper analysis on each initial category developed in the open coding phase. In this phase, all the qualitative evidences related to certain initial category were looked at and analysed together. As a result of the analysis, several challenges of innovation networks were identified.

## Findings

This empirical study identifies several challenges of innovation networks. The challenges identified are

- Conflict of interest and opportunism
- Educating/learning in the network
- Unforeseen gain to competitors
- Network partner's economic problems
- Defining responsibilities and roles
- Lack of coordination and leadership
- Holding schedules
- Lack of written contracts
- Unreliable partners/scam
- Ability to correct one's own errors
- Exaggerating skills and capabilities

These challenges are described next in more detail.

*Conflict of interest and opportunism.* The present empirical data show that conflict of interest and opportunism is one of the main challenges in innovation networks. Even though most partners understand that collaboration should benefit all partners in the network, still many tend act in a way that is perceived unfair and opportunistic by the

other partners. Most people understand that, the precondition for long-term collaboration and success in the network is win-win-situation. Still, in daily activities, the long-term perspective may be forgotten. Also, some actors may not have been interested in long-term collaboration in the first place. They may have considered the network as a short-term arrangement.

*Educating/learning in the network.* The data suggest that, in several cases, the precondition for effective collaboration of the innovation network is educating the network partner(s). This may be a challenge, since often education and learning may involve complicated issues, for example technical details. Product knowledge that is self-evident to one partner may turn out to be challenging to learn by the other partners in the network.

*Unforeseen gain to competitors.* The present data show that, sometimes unforeseen gain to competitors is a challenge in innovation networks. Even though the collaborating partners in the innovation network may not be competitors to each other, they may have relationships to such third organizations that are competitors to the other party. The partners A, B and C of the innovation network may agree that they both have IPR intellectual property rights to the innovation being developed together. Then, later one of the partners may sell the IPR to a party D outside the original innovation network that happens to be a competitor to one of the partners, say B. Then, the partner B unexpectedly finds that the innovation developed in the network with A, B and C gains their competitor D.

*Network partner's economic problems.* The present data show that network partner's economic problems may destroy the innovation network. The network partners may not be aware that one of them is in economic problems. They invest their time, money and resources to the cooperation. At some point, one of the network partners turns out to be in so bad economic condition that it cannot fulfil its promises. For example, one of the network partners makes a bankruptcy unexpectedly.

*Understanding capabilities and defining responsibilities and roles.* The data shows that is important to know the own and network partners' capabilities. Then, it becomes possible to see how the capabilities complement each other. After that, it becomes possible to define each partner's responsibilities and roles in the innovation network. However, this is often a big challenge, particularly if the network partners are not familiar to each other.

*Lack of coordination and leadership.* The present data suggest that lack of coordination and leadership is one of the major challenges of innovation networks. There may be a large number of actors in the network without anyone taking responsibility for the big picture. Similarly, responsibilities for the sub-objectives should be clearly defined.

*Holding schedules.* The data show that holding schedules in innovation networks is a clear challenge. Since the coordination is more challenging in innovation networks, also holding schedules becomes more difficult.

*Lack of written contracts.* The data suggest that written contracts are important in the innovation networks. Even though the other partner would not purposely try to cheat, they may remember things differently after some time. While it is important to avoid excessive bureaucracy, it is also important to agree on the most relevant aspects of the cooperation with written contracts.

*Unreliable partners/scam.* According to the present data, sometimes the partners of innovation networks may include those, who in the first place did not have any true intention to keep their promises and fulfil their obligations. As one partner is not doing their job, it may be left out of the network during the project. However, this results in revising the project plan. Also, it typically means that the others have to increase their work load and do the unreliable partner's job. In the worst case, the project has to be terminated, which results in irretrievable costs and other harm.

*Ability to correct one's own errors.* The current data shows that the ability to correct one's own errors and mistakes is one of the challenges in innovation networks. Any innovation project includes problems. In such cases some partners seem to be more able to face problems and solve them than others. This involves admitting one's own mistake, analysing the reasons for the problem, and planning and implementing measures to recover from the situation. The present data shows that admitting and correcting one's own errors before they are visible to customers is particularly important.

*Exaggerating skills and capabilities.* The empirical data of this study show that exaggerating skills and capabilities is one of the challenges of innovation networks. This may cause major problems to other partners of the innovation network while they rely that everyone else is capable of doing what they have originally promises to in the innovation project. The data suggest that skilled partners can clearly communicate what they cannot do and want they do not master. In other words, they do not claim to be experts of every field. They clearly know and tell they can do and what they cannot do.

## Contribution

Some studies can be found dealing with innovation in the context of inter-organizational networks. Yen's (2009) study found that none of the cluster companies was able to operate at the expected level of innovation performance. Her (ibid.) study suggests that, while innovation performance proves to be unsatisfactory for all cluster companies, those with a higher level of network competence and central network positions perform significantly better in terms of innovation than companies low in network competence and network centrality. Szeto (2000) found that the types, configurations and relationship are interlocking conditions to facilitate the cycle of getting innovation resources from outside, processing the resources into information, applying for new product development and codifying as the knowledge base of the firm. According to Westerlund and Rajala (2010), learning drives firms' co-innovation focus in terms of product and process co-innovation. In particular, the explorative learning orientation was found to foster firms' network collaboration through product co-innovation. Also, they (ibid.) argue that exploitative learning orientation promotes process innovations but discourages networking. Harris, Coles and Dickson (2000) found that while inter-firm networking can facilitate new product development across firm boundaries, it is not a panacea for success. This is in line with Campbell and Cooper's (1999) findings.

Indeed, the earlier studies suggest that innovation in networks have several challenges and problems. However, very little knowledge seems to exist on the nature of these challenges, and there was a clear knowledge-gap to be filled. The present study contributes to the literature by empirically identifying several challenges. As explained earlier, they are conflict of interest and opportunism, educating/learning in the network, unforeseen gain to competitors, network partner's economic problems, defining

responsibilities and roles, lack of coordination and leadership, holding schedules, lack of written contracts, unreliable partners/scam, ability to tackle one's own errors, and exaggerating skills and capabilities.

## Conclusions

The purpose of this study was to increase knowledge of challenges of innovation networks. The literature includes a great deal of research on both innovation and business networks, but the empirical knowledge of challenges of innovation networks is scarce. The present empirical study was based on multiple case studies. This article contributed by identifying several challenges related to innovation in the network context. They were conflict of interest and opportunism, educating/learning in the network, unforeseen gain to competitors, network partner's economic problems, defining responsibilities and roles, lack of coordination and leadership, holding schedules, lack of written contracts, unreliable partners/scam, ability to tackle one's own errors, and exaggerating skills and capabilities.

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## Colour and Young People Fashion

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### Abstract

*The fashion designer is in his everyday life addressed by colour, playing with its essence, adapting to the trends, finding himself with the increasingly demanding consumer.*

*The colour and how it is perceived, always influenced habits, tastes and thoughts of the human being. The colour is a feature that fulfils our environment, not only specifying a fundamental quality or attribute of objects, but also causing deep emotional and aesthetic effects, influenced by associations and preferences.*

*Thus, it becomes the need to understand such intrinsic relationship, not only with fashion, but also with colour. The main objective is to reach an understanding of colour in three possible aspects: colour as a phenomenon, colour on an approach to the consumer, colour in fashion design.*

*In this way, it was intended to assess what are the concepts that young consumers may have about colour and how this relates to fashion design, taking into account various factors, such as: the symbolic values of colour and its connection with fashion within a perspective of apparel and accessories, and colour preference considering factors such as combination, contrast and style of clothes.*

*Keywords: Fashion Design, Garment Colours, Young People Fashion*

### Introduction

Since ever the consumer needed to dress, always wanted to try new things, contrasts and harmonies, where his way of being and personality could enter.

The truth is that clothing, has always served to the man as an object of communication, where the designer has the creativity, which communicates ideas, concepts and messages. "Creating is a matter to mix elements in an exciting new way to generate combinations and different products." (Jones, p.99, 2005).

But sometimes, being human is being complex and when it comes to its own opinion, the need arises to try to understand the whys of this intrinsic relationship, not only with fashion but also with the colour. "The colour is a characteristic that pervades our environment, not only specifying an attribute or fundamental quality of surfaces and

objects, but also in the case of humans, often causing deep aesthetic and emotional effects, influenced by associations and preferences." (Schiffman, p.85, 2005). For Wassily Kandinsky, abstract painter, his work was associated to the music. For Kandinsky the colour "was a phenomenon which allows to evoke the emotions in an universal language, with relationship to movements, temperatures and musical sounds," (Barros, p. 50, 2007). The colour, both, aesthetic and functionally, is one of the attributes that as the greatest influence in the way that we deal with what is around us. It's easy to appreciate the aesthetical side of colour considering the effect that they can cause in the combination of garments with distinct shades (Lillo, 1993).

Our relations with colour go well beyond our wardrobe or home, existing in society with all its different meanings, because the colour is constructive and has the value of a symbol and therefore it is able to provide us with a language that communicates ideas and conveys meaning. And these meanings turn out to instil in us.

Speaking generally, the colour is something that is understood by human beings in a very individual way, which involves impressions, feelings and life experiences, as Eva Heller explains (p.17, 2007), stating that "[...] the colours and the feelings do not match by accident, that their associations are not matters of taste, but universal experiences from childhood deeply rooted in our language and thought. [...]" For Pastoureau (p.24, 1997), yellow is the colour of children, of vivacity, spontaneity and energy. The blue can mean a kind of status, for a rich or noble family and the black is what is dirty or stained in a total opposition of the white. There are an infinite number of black shades: "The soft black in the transparent clothes, the sad black off mourning, the black velvet, noble and profound, the profuse black from the taffeta or the strong black from the silk (faillie), the flowing black of satin, the joyful black of varnish. The black is as much matter as is colour, is as lighter as is shadow. It's not sad or joyful, but allure and elegant, perfect and indispensable. As the night is irresistible." Christian Lacroix (Seeling, p.120, 121; 2000)

With the evolution of times, people realize that the way how they've dressed influenced the way as people looked at them, and so, they've created ways to call attention or to avoid it, dressing with in a more exuberant style or more discretely as the occasion presented itself (Flugel, 1989).

A colour in a person clothes can influence the way in which she is understood. It can hide personalities or show identities (Smith, 2008). What is at issue will be the consumer choices as being emotional and sensitive, which perceives and brings meaning to everything that surrounds him. Many people use contrasts and colors to express feelings according to their mood (Flugel, 1989).

On other occasions, consumers develop a preference for a color because they have learned, through associations, that certain colours are more appropriate for certain categories of products (Grossman, Wisenblit, 1999). In the everyday most common situations, such as choosing a product or buying a piece of clothing, the colour is one of the elements that most influence our choices as consumers. Its impact through a more intense tone can immediately alert the individual as a key that will be conspicuous in his unconscious. "Every human being has a distinct personality that influences their purchasing behavior." (Medeiros, Cruz, p.173, 2006), and sometimes in the demand for the satisfaction of needs, when it aims for a product or service with specific characteristics that come out of what is considered a basic service or product, what is

consumed is not a necessity, but a desire influenced by issues culture, society or personality (Kotler, 2000).

The colours just end up having a great importance along our lives in almost all situations, being part of the world and nature, into the life of each one to give it colour and more colour. To better understand the influence of colour symbolism and how it influences the public choices for garments were placed nine questions:

- Question one : What are the colours for which has more preference?
- Question two: What are the associations which give rise to the different colours show?
- Question three: Do you think colour influences your decision to buy a garment?
- Question four: Do you think that the colour that is in fashion makes you to purchase a garment?
- Question five: What are the most important factors to you when choosing and buying a piece of clothing?
- Question six: When combined, what are the criteria by which you make the choice?
- Question seven: When dressing, do you often combine parts with different colours?
- Question eight: When you buy a garment how many colours do you prefer to have?
- Question nine: In what kind of clothing you think the colour is more important?

## Development of the performed experimental study

Having regard to the theoretical content of the work, a study was conducted from the parameters discussed in a first stage. For this it was necessary to include a short questionnaire, which was performed at two different but intersecting places if we take into account the public that often attend.

That said, a first site chosen for the distribution of questionnaires as well as its completion, has been the University of Beira Interior (UBI), Covilhã, and a second place was the Municipal Theater of Guarda (TMG), more properly the Cafe Concert, a local leisure usually frequented by a younger and irreverent audience. A relaxing space where you can read a book, enjoy the quiet style sound, but also attend various exhibitions of subjects related to our culture, our day-to-day as well as matters of scientific and social character.

The idea is to show an environment that has nothing to do with a university, it was only for the purpose of trying to understand the psychological state in which individuals find themselves may have some importance in the type of responses. Can the mind be related to the place where the person is? Maybe a place where we are tense and nervous, as the eve of an exam, the answers are more limited than if we are supposedly in a cafe where we are relaxed, talking with friends.

But the truth is that both the TMG as the UBI, in general, people expressed interest, interacting very well with the questions asked in the questionnaire.

Before this process takes place, we proceeded to implement a pre-survey in the city of Sabugal, intending thereby to realize if there was a satisfactory understanding of the questionnaire, something that is denoted in the generality of the public.

The choice of the city was of course the degree of insecurity, but this city is a social and cultural point halfway between the cities of Covilhã and Guarda, that is: most of the young audience of Sabugal and the county, conduct their studies at the University of Beira Interior and the Polytechnic Institute of Guarda and when they end their studies remain and organize their life between these three regions, eventually finding employment in the interior places of the country. The triangle and the link between these three points are noteworthy when it comes to issues like education and employment.

A total number of 110 surveys were distributed. 52 questionnaires were obtained within the Municipal Theater of Guarda and 58 at the University of Beira Interior. However, not all questionnaires got a total of 110 responses.

To begin, the study aims to demonstrate what are the interests from a young audience in relation to the world of fashion and design colours.

Given various factors, such as: the symbolic values of colour, its connection with fashion within a perspective of clothing and accessories, it is intended to judge what are the concepts of colour relating them to fashion,

The way the colour interacts in view the seasons that are presented to us every six months, i.e., spring - summer and autumn - winter. The aim is also to evaluate the colour for which there will be a greater preference given to factors such as the combination, contrast and style of clothing concerning people where this public is a part.

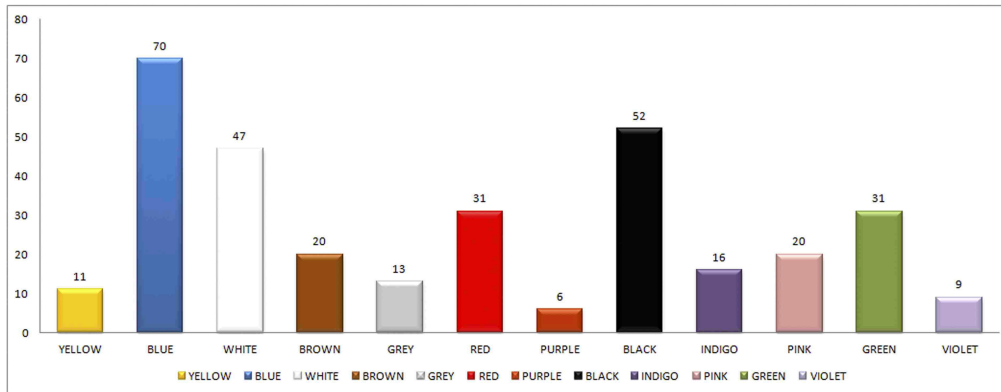
## Results and discussion

As for the characterization of the sample, 51 of the answers relate to the male and 59 where female responses. Only two individuals who have answered had an age below 18 years of age, between 18 and 20 years the number of responses was 29, 32 responses include those aged between 21 and 23 years, 22 individuals are aged between 24 and 26, seven between 27 and 29 and finally 11 subjects reported are over 29 years old.

Regarding the level of education in the higher education sector, 56 responses were obtained and 39 responses relate to high school grade of education. The number of responses for a degree or an expertise as masters where for both seven. In the matter of residence, 52 of the respondents live in cities, 19 in villages and 12 responses correspond to villages.

## Colour preference

**Graphic One - Distribution of data concerning most preferred colours. Individuals could choose three colours.**



At Question one no doubt that the most appreciated colour by participants is blue with 70 preferences and there is a connection to Heller (2000), which in its study, discusses the colour blue as one of the most appreciated.

After the blue colour is the black with 52 preferences. Heller (2000) presents us this colour as the favourite for a young audience that is composed of ages between 14 and 25. According to Heller (2000) the young associate black to stylish while an old audience has a great tendency to associate black with death and mourning.

In a third preferred became white that for Heller (2000) is associated to perfection, simply because there is no white concept with negative meaning. Forty-seven of the respondents reported that their favourite colour is white.

Following white the two colours with equal number of responses are green and red, with a total of 31 responses.

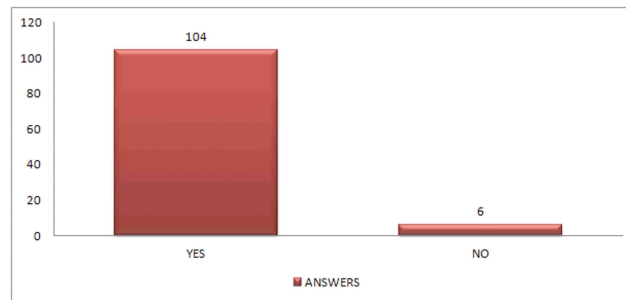
Also with relevance emerge brown and pink with 20 answers. Colours like purple gray and yellow had the lowest values.

## Colour and its symbolism

At Question two white is the symbolism of cleansing, the black is seen as mourning, red appeals to sensuality, the yellow is light, green is natural and finally blue assumes the role of a relaxing colour. There aren't appropriate standard choices and symbolisms attributed to the colour, because colour is the result of our culture and cannot be perceived unless it is viewed. The use of colour to modify the emotional energy also results in the perception of the world and the way we view it, but above all to live. (Silva, 2008)

## Colour as influence when purchasing clothing

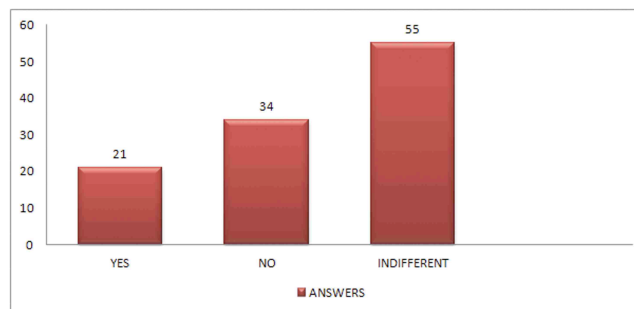
**Graphic two - Distribution of data regarding the importance of colour in the purchase decision of a garment.**



At Question three, the majority of the responses were yes relative to the influence of colour on purchase by the consumer. The result shows a total of 104 positive responses and only six of the respondents reported that the colour does not influence them when buying clothing.

## Fashion colours as factor of influence for purchase

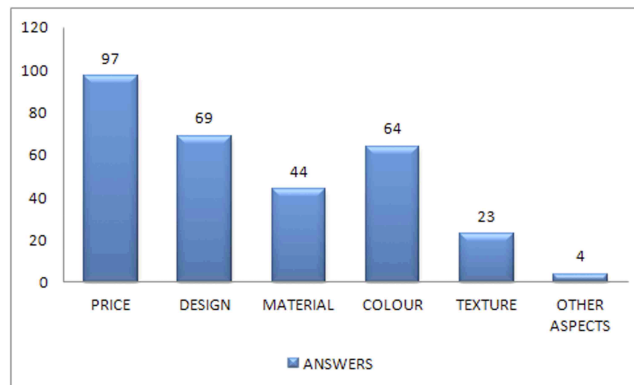
**Graphic three - Distribution of data on the importance of fashionable colour in the purchase decision of a garment.**



In Question four, contrary to the trends may try to impose on the colour most of the public is indifferent towards the colour of fashion. Following the indifferent with 55 responses is the No with 34 responses and finally 21 participants claim to have interest in the colour that is fashionable at the time of purchase.

## Important factors in a piece of clothing

**Graphic four - Distribution data for features related to the garment.**



In Question five when choosing and buying a garment, according to respondents, the price factor is what carries more weight in the buying decision imposing a relative distance in terms of responses for colour and design, factors that appear almost equivalent.

Both, the material as the texture had less importance, however, the material obtained more quotation.

If the consumer is looking for more affordable pieces he probably already expects to find pieces of lower quality, so, taking into account the relation price / material that normally applies to clothing, it can be said that this is the reason why the consumer gives more value to price, because since the start he knows what he will find in this product. However, if it expects to find quality he will probably follow the price factor but in an opposite direction.

### Criteria for the combination of clothing and accessories

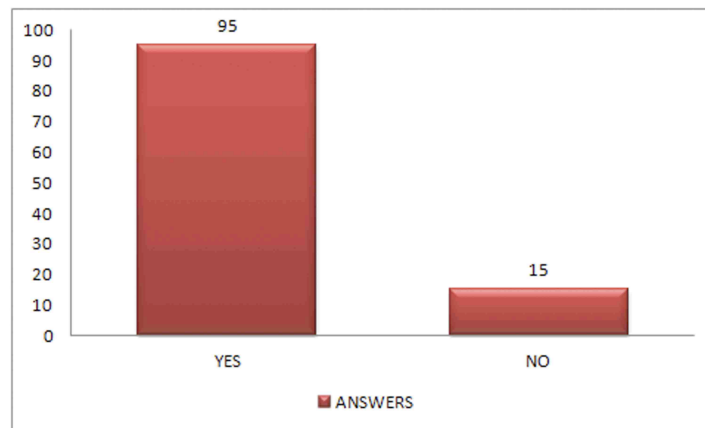
In Question six the respondents perceive the personal taste as a major influence on the combination of accessories with garments, leaving in the background colour combination. This option still takes a number of sharp responses showing itself also as an important factor.

The contrast of colours is also valued by the respondents and functionality, fashion and design appear in the background getting fewer responses. Thus it can be concluded that somehow the fashion accessories are not as sought after for its functionality or design, but as objects of vanity when combined with beautifying garments.



## Combination of garments with different colours

**Graphic five - Distribution of data regarding the importance of colour in the purchase decision of a garment.**



In Question seven the contrast is seen as one of the most useful design principles. It exploits different shades so that their interaction overrides monotony, either in parts or in combinations of parts, as the contrast between materials of different textures.

So, the results obtained indicate that most people have been chosen to answer is yes as a way to break the monotony and to perform various combinations to different situations of use. The audience is young, be young is to be diversified, so the change is constant.

### Colours for apparel parts

In Question eight mainly, the preference went for with one colour, with a total of 65 responses. Consequently, the garments with two colours and with different colours had a much lower preference, and almost identical. The preference for garments of various colours or coloured reached a total of 27 responses, while the garments with two colours gathered 20 responses.

### Colour and clothing

At Question nine the preferred answer choice was the formal clothing with 46 responses, work clothes got 39 responses and leisure got 35 responses, thereby very similar, but a greater importance was given to formal clothing.

### Conclusions

The colour as was analyzed shown to be of great importance in the personal choices of each one of us, being largely the personal taste intrinsic to each one the guide to the choices of colours that complement our day to day and also our clothes. Blue and neutral colours are those that draw more attention and remains associated with each colour a meaning that comes from the culture around us. The colour is certainly an important factor in the choice of a garment being surpassed only by price and matched by design; however the colour of fashion does not influence the decision entirely being overlapped by personal taste. As for the colour itself on the garment pieces, the consumer prefers a single colour, and gives more weight to the appearance of colour in

the formal wear; however, the combination of different colours from different parts is well accepted. In short, the colour appears as an important aspect in clothing, but the taste still emerges as the most important when choosing overlapping the colour of fashion.

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## Consumer's Multi-Channel Choice in relation to Fashion Innovativeness and fashion items

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### Abstract

*This study identified consumer's multi-channel choice according to gender, age, fashion innovativeness, fashion involvement, fashion interest, and fashion items. A survey involving male and female adult consumers was conducted in Korea in August 2011. A total of 350 responses were analyzed using descriptive statistics, factor analysis, correlations and ANOVA. Results are as follows. Department stores were preferred for the purchase of formal suit, overcoat, jumper, dress shirt, blouse, outdoor wear, sportswear, golf wear and shoes mostly. Online shopping malls were preferred for casual pants, jeans and T-shirt. Socks and stockings were frequently bought at mega shopping marts. Underwear and sneakers were mainly bought at independent franchised shops. The number of retailer type a consumer used was ranged from 1 to 8, and the average was 4.07. The number of retailer type was significantly higher in women groups according to gender variable. Unique-oriented fashion innovativeness was significantly related with the number of retailer type used.*

*Key words: multi-channel, retailer type, fashion item, fashion innovativeness, fashion involvement, fashion interest*

### Introduction

There are many types of fashion retailer, and new ones are emerging continuously. Regarding consumer's store selection behaviour, most of research has focused on a single type of shopping environment because multi-channel environment is fairly recent development (Dholakia et al., 2010). Now, development of internet technology makes consumers information-sensitive. In addition, expansion of e-marketplace and television home-shopping offers non-store shopping conditions to consumers.

In this multi-channel environment, how many retailer types a consumer uses on average for their fashion shopping? What elements affect consumer's multi-channel choice? This study aims to identify consumer's multi-channel choice according to some consumer characteristics such as gender, age, fashion innovativeness, fashion involvement, fashion interest, and fashion items.

Fashion innovativeness, fashion involvement and fashion interest were very essential psychographic variables interpreting consumers' fashion behaviour. Fashion innovativeness could be defined as the readiness to adopt a new style in fashion market, and fashion involvement is the consumer's perceived importance of fashion clothing (Cardoso et al., 2010). Fashion interest reflects amount of fashion attention in a consumer's mind.

It has been discovered the significant relations to various fashion attitudes and behaviours of fashion innovativeness and fashion involvement. Jun and Rhee (2009) researched the influence of fashion innovativeness on fashion adoption. Muzinich et al. (2003) investigated the relationship between fashion innovativeness and the use of evaluative criteria. Cho & Workman (2011) found out that multi-channel choice was influenced by fashion innovativeness. Goldsmith (2002) reported that heavy users of fashion were more involved and innovative about clothing. Cardoso (2010) utilized fashion innovativeness and involvement as criteria segmenting fashion market.

It would be worth to investigate fashion innovativeness, fashion involvement, and fashion interest as related variable of multi-channel choice. Basic demographics such as gender and age should be examined together because they are the most fundamental elements to explain attitudes and behaviors of human beings (Chung, 2011).

## Methodology

### Measurements

For empirical survey, a questionnaire was developed to measure the consumer's multichannel choice behaviour, fashion innovativeness, fashion involvement, fashion interest, and several demographic features. To investigate the consumer's multichannel choice behaviour, the respondents were asked to mark their most-frequently using channel types for 16 fashion items. Seven channel types—department stores, independent franchised shops on high street, discount stores, mega shopping marts, fashion specialty malls, online shopping malls, television home shopping- and 'the others' categories were presented as alternative answers. 16 fashion items were formal suit, overcoat, jumper, dress shirt, blouse, casual pants, jeans, T-shirt, underwear, socks, stockings, outdoor wear, sportswear, golf wear, shoes, and sneakers. Fashion innovativeness was measured by nine items adopted from Kim (2000) and Rhee (1991) with five-point Likert-type scale (1=strongly disagree, 3=neutral, 5=strongly agree). Fashion involvement was measured by five selected items from Zaichkowsky (1985)' PII (Personal Involvement Inventory), which were regarded as representative ones concerning their means and standard deviations in previous study (Chung et al, 2005). 'Trivial vs. fundamental', 'means nothing to me vs. means a lot to me', 'unexciting vs. exciting', 'unappealing vs. appealing', 'worthless vs. valuable' were them. Seven-point semantic differential technique was applied to fashion involvement measurement. Fashion interest was measured by one item, 'I'm interested in fashion' with five-point Likert-type scale (1=strongly disagree, 3=neutral, 5=strongly agree). Demographic variables were gender, age, education, and income.

### Data collection and analysis

The population of empirical study was female and male adult living in Daegu metropolitan city in South Korea. Convenience quota sampling was applied to the data collection process. A total of 350 responses were included in the statistical analysis. The profiles of the respondents have been briefly outlined in Table 1. Female group prevails over male group according to gender variable. The age range of respondents was from 19 to 41, and almost 60% were in their late twentieth. Most of sample had college experience. The 33.4% of respondents reported their monthly income is between 2,000 USD and 2,999 USD. Data were analyzed using descriptive statistics, factor analysis, ANOVA and correlations of SPSSWIN 17.

**Table 1. Sample characteristics**

(N = 350)

Variable	Category	Frequency (%)
Gender	Male	147 (42.0)
	Female	203 (58.0)
Age–years (Range = 19 ~ 41, Average = 28.7, SD = 4,25)	Under 25	25 (7.1)
	25-29	207 (59.2)
	30-34	60 (20.0)
	35 and over 35	48 (13.7)
Education	Primary school experience	2 (0.6)
	Middle School experience	1 (0.3)
	High School experience	34 (9.7)
	College experience	285 (81.4)
	Graduate School experience	28 (8.)
Monthly income–unit: USD	Less than 1,000	73 (20.9)
	1,000–1,999	95 (27.1)
	2,000–2,999	117(33.4)
	3,000–3,999	39(11.1)
	4,000–4,999	12 (3.4)
	5,000 and over	14 (4.0)

## Results and Discussion

### Construct of fashion innovativeness

Factor analysis was applied to examine the construct of consumers' fashion innovativeness. Factors were extracted using the principle component method, and the extracted factors were rotated with Varimax rotation. Two factors were identified as being components of fashion innovativeness, as shown in Table 2. Factor 1 consisted of five items related to the desire to try change, and this factor was called 'change-oriented innovativeness'. Factor 2 consisted of four items related to the preference of uniqueness, and this factor was called 'uniqueness-oriented innovativeness'. These two factors explained 57.35% of the total variance. Scale reliabilities were .78 and .72, respectively.

**Table 2. Construct of fashion innovativeness**

Factors	Items	Factor loadings	Eigen-value	Percent of Variance-Cumulative	Alpha
Change-oriented innovativeness	I purchase new fashion items immediately when I get information of them.	.808	3.12	34.66 (34.66)	.78
	Fashion makes me happy because it changes all the time.	.753			
	Always I try to wear something new.	.657			
	I'm interested in fashion trend in the future more than of the present.	.634			
	I drop in newly opened shops.	.593			
Uniqueness-oriented Innovativeness	I often purchase wholly new styles never heard of and/or seen before.	.748	2.04	22.69 (57.35)	.72
	I think that it is wasteful to purchase new styles not in fashion.(-)	.674			
	I like to shop in stores having unique things.	.655			
	I like innovative and unusual fashions.	.630			

### Consumers' channel choice by fashion items

The most-frequently using channel types for 16 fashion items were as shown in Table 3. Department stores were preferred for formal suit, overcoat, jumper, dress shirt, blouse, outdoor wear, sportswear, golf wear and shoes mostly. But independent franchised shops and discount stores were in competition with department stores for these items. Online shopping malls were preferred for casual pants, jeans and T-shirt. The competitors of online shopping mall for these items were department stores, independent franchised shops, discount stores and specialty fashion malls. Socks and stockings were frequently bought at mega shopping marts; underwear and sneakers were mainly bought at independent franchised shops.

**Table 3. Channel choice by fashion item**

Fashion item	Frequency (percent)							
	DEP*	IND	DIS	MEG	SPE	ONL	TEL	the others
formal suit	227 (65.2)	43 (12.4)	53 (15.2)	2 (0.6)	18 (5.2)	5 (1.4)	0	0
overcoat	182 (52.1)	58 (16.6)	62 (17.8)	1 (0.3)	20 (5.7)	21 (6.0)	1 (0.3)	4 (1.1)
jumper	118 (33.9)	86 (24.7)	76 (21.8)	3 (0.9)	26 (7.5)	35 (10.1)	1 (0.3)	3 (0.9)
dress shirt	67 (35.8)	32 (17.1)	50 (26.7)	7 (3.7)	11 (5.9)	19 (10.2)	0	1 (0.5)
blouse	57 (28.9)	32 (16.2)	39 (19.8)	1 (0.5)	21 (10.7)	41 (11.7)	2 (1.0)	4 (2.0)
casual pants	51 (14.9)	49 (14.3)	74 (21.6)	14 (4.1)	57 (16.6)	87 (25.4)	4 (1.2)	7 (2.0)
jeans	62 (19.7)	59 (18.8)	50 (15.9)	5 (1.6)	51 (16.2)	82 (26.1)	2 (0.6)	3 (1.0)
T-shirt	50 (14.3)	55 (15.7)	63 (18.0)	6 (1.7)	61 (17.4)	107 (30.6)	4 (1.1)	4 (1.1)
underwear	66 (19.0)	72 (20.7)	51 (14.7)	60 (17.3)	25 (7.2)	42 (12.1)	24 (6.9)	6 (2.0)
socks	21 (6.1)	32 (9.3)	60 (17.5)	101 (29.4)	20 (5.8)	34 (9.9)	1 (0.3)	74 (21.6)
stockings	21 (10.9)	15 (7.8)	17 (8.9)	52 (27.1)	13 (3.7)	27 (7.7)	0	47 (24.5)
outdoor wear	64 (36.2)	49 (27.7)	36 (20.3)	6 (3.4)	5 (2.8)	7 (4.0)	3 (1.7)	7 (4.)
sportswear	69 (35.4)	61 (31.3)	37 (19.0)	3 (1.5)	5 (2.6)	11 (5.6)	4 (2.1)	5 (2.6)
golf wear	43 (39.1)	37 (33.6)	17 (15.5)	3 (2.7)	1 (0.9)	4 (3.6)	1 (0.9)	4 (3.6)
shoes	156 (45.2)	57 (16.5)	36 (10.4)	2 (0.6)	36 (10.4)	45 (13.0)	4 (1.2)	9 (2.6)
sneakers	87 (25.1)	137 (39.5)	52 (15.0)	4 (1.2)	23 (6.6)	40 (11.5)	2 (0.6)	2 (0.6)

\*DEP: department stores, IND: independent franchised shops on high street, DIS: discount stores, MEG: mega shopping marts, SPE: fashion specialty malls, ONL: online shopping malls, TEL: television home shopping

### Multi-channel choice

The number of retailer type a consumer used was ranged from 1 to 8, and the average was 4.07 (SD=1.295). As shown in Table 4, the number of retailer type was significantly higher in women groups according to gender variable. Therefore, it could be said that women consumers' shopping pattern is more diverse than that of men consumers.

**Table 4. ANOVA of the number of retailer type according to gender**

Variance	Sum of Squares	df	Mean Square	F	Sig.	Mean (SD)	
						Men	Women
Between Groups	36.128	1	36.128	22.897	.000		
Within Groups	549.087	348	1.578			3.69 (1.275)	4.34 (1.243)
Total	585.214	349					

### Relationships of multi-channel choice and consumer characteristics

The correlations of the number of retailer type and several variables were presented in Table 5. Fashion innovativeness was significantly related with the number of retailer type used. Specifically, while the correlation of the uniqueness-oriented innovativeness factor was in significant, the correlation of the change-oriented innovativeness factor didn't show the significance. The correlation between gender and the retailer number was significant as the result of ANOVA. Other variables-fashion involvement, fashion interest and age- didn't have relationship with the retailer number. Consequently, women consumers having strong uniqueness-oriented innovativeness will tend to shop in various types of store.

**Table 5. Correlations of the number of retailer type and consumer characteristics**

Variables	Correlations to the number of retailer type used
Innovativeness in total	.113 (p=.035)
Change-oriented innovativeness	.069 (p=.195)
Uniqueness-oriented innovativeness	.133 (p=.013)
Fashion involvement	-.004 (p=.941)
Fashion interest	.008 (p=.875)
Gender (dummy: female=1)	.248 (p=.000)
Age	-.094 (p=.078)

### Conclusion

This study investigated consumers' multi-channel choice behaviour in relation to fashion items and some consumer characteristics. The results showed that the channel choice was influenced by fashion items. For example, a consumer tended to purchase a formal suit at department stores, but purchase casual pants at online shopping malls. The number of retailer type a consumer used was ranged from 1 to 8, and a consumer used 4 types of retailer for fashion shopping in average. Considering the correlations between some consumer characteristics and the retailer number, women consumers having strong uniqueness-oriented innovativeness will tend to shop in various types of store.



This study is valuable since the research findings are scanty concerning multi-channel choice behaviour. Especially, the identification of the construct of fashion innovativeness, change-oriented innovativeness and uniqueness-oriented one, and the impact of uniqueness-oriented innovativeness on multi-channel choice was very interesting, and is worth to be studied in depth.

This study has a limitation concerning sample frame. The population is limited to the resident of Daegu city; it needs to expand the regional boundary to whole country. The other limitation is the measuring technique regarding multi-channel choice. One consumer might purchase a fashion item in various types of store. How many retailers are used for one fashion item could be the next research topic.

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## Intensity of Italy's Agri-food trade with countries outside the EU Mediterranean

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### Abstract

*This paper aims to present a framework of trade relations between Italy and the countries of southern and eastern shores of the Mediterranean Sea. More specifically, using the indicators proposed in the analysis of international trade, we want to analyze the intensity of trade in agri-food products and the strength of trade ties between the bordering Mediterranean countries. The analysis of the intensity of trade flows of food products from Italy and the partner countries of North Africa and the Near East has allowed us to trace a network of flows between the countries in the area. If we can see an overall weakening of the agri-food trade, the analysis for individual partner states, however, shows a strengthening of ties with Turkey, Tunisia and Croatia, which are among the most important trading partners, but also with Egypt, in the face instead of a detriment intensity of agri-food trade with Morocco and Algeria.*

*Keywords: Trade Intensity, Agri-Food products, Mediterranean Policy*

### The aim of the work and assumptions

The agricultural issue has always been one of the major discussed argument by the relations between the EU and the countries of the Middle East and North Africa region and therefore it is a subject that involves completely even Italy. The agri-food system, in fact, plays a significant role in many Mediterranean countries for the demographic component present in both rural areas and the contribution that agriculture still contributes to the GDP of these countries. This partly justifies the strong protectionist structure adopted over the years by different countries. In place, many issues in the relations between the two shores of the Mediterranean are still open, despite the launch of the Barcelona Process (1995) in which the EU and twelve Mediterranean countries on the southern shores have drafted a political partnership, social and Economic Partnership, which provided for the creation of a regional free trade area (Crescimanno 2007), and although the EU had turned from a European Neighborhood Policy (ENP) that involved both the Mediterranean and those Caucasians. The Union for the Mediterranean (UPM), enshrined in the Paris Summit of 2008, is the last step of Euro-Mediterranean policy (Galati 2010).

Italy, for the strategic geographical position occupies in the Mediterranean basin and the strong complementarity of agriculture with the countries of the South in particular, has always been intense trade with other Mediterranean partners. In light of these considerations, this paper aims to present a framework for trade relations between Italy

and the countries of southern and eastern shores of the Mediterranean based on the intensity of trade. More specifically, using some of the indicators proposed in the analysis of international trade, we are analyzing the intensity of trade in agri-food products and the strength of the bonds since 1996, when the first agreement was signed between the Association 'EU, in one hand, and Mediterranean partner countries, in the other. After a brief preliminary analysis of the theoretical analysis of the intensity of trade references and method of work with an analysis of trade of food products between Italy and the Mediterranean countries not members of the EU. It gives also a picture of the intensity of trade between Italy and other countries under study. The concluding remarks close the work.

## The methodological approach

To determinate the intensity of trade between two countries we have made several measurements and analyzes based on the approach developed by Brown (1949) and Kojima (1964). The indicators used (Drysdal and Garnaut 1982; Frankel and Rose 1997; Baxter and Kouparitas 2005; Ng and Yeats 2003) allow to describe the geographical distribution of trade and the strength of trade linkages between countries (Edmond and Yao Li 2010). Furthermore, as Demonstrated by empirical evidence Canova and Dellas (1993) and Frankel and Rose (1998), the greater intensity of trade between two countries is Correlated with the intensity of economic activity of the two countries linked economically.

Other studies have been conducted by Traistaru (2004), which use the intensity of trade as a factor analysis to identify the benefits and costs of the entrance of the former CEECs in the eurozone, by Bernini Carri and Sassi (2009) who, working agricultural agreements signed between the EU and Africa, from Edmonds and Li (op.cit.) dealing with the intensity of Commerce of China.

The objectives of this paper is to propose an empirical analysis that uses specific indicators that measure the intensity of trade of food products between Italy and the countries of southern and eastern shores of the Mediterranean (Albania, Algeria, Croatia, Egypt, Israel, Lebanon, Libya, Montenegro, Morocco, Occupied Palestinian Territories, Serbia, Syria, Tunisia and Turkey<sup>1</sup>) with which special agreements of different nature that also regulate trade between the two shores. For the analysis used the cash flows of exports and imports taken from the United Nation Commodity Trade Statistics Database (UNComtrade) for each of the individual items making up the aggregate of the agricultural food production (01-24 classes of harmonized nomenclature according to the classification two digits). The reference period is 1996-2010.

The analysis produced starting from the definition of the structural framework of the agri-food trade between Italy and the Mediterranean non-EU countries (defined as the partner countries), the fifteen years 1996-2010 has been divided into three main sub-periods of five years each (1996-2000, 2001-2005 and 2006-2010), in order to be able to better analyze the existing commercial scenarios in the study area. Similarly, for the determination of the intensity of the agri-food trade reference is made to the same five-

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<sup>1</sup> Libya and the Palestinian Territories have been excluded from the analysis since the statistical series of reference for these two countries is rather patchy, while Serbia and Montenegro have been treated as a single aggregate because for some years, the data show of UNContrade a confluence of data between the two countries.

year periods of reference, but the value of the trade complex for the food industry, since the size of the statistical data relating to each of the 24 classes of harmonized nomenclature would made little appreciable value of the index.

For the calculation of the intensity of bilateral trade, which expresses in a nutshell, the level of strength and openness of trade between two countries, have been used indices proposed by Frankel and Rose (1997) (1) and Traistaru (1984) (2). The index of intensity of Frankel and Rose is expressed as:

$$T_{ij} = \frac{X_{ij,t} + M_{ij,t}}{X_{i,t} + M_{i,t} + X_{j,t} + M_{j,t}}$$

where  $M_{ij,t}$  expresses the exports of country  $i$  to country  $j$ ,  $X_{ij,t}$  expresses the imports of country  $i$  from country  $j$ ,  $X_{i,t}$  and  $M_{i,t}$  are, respectively, exports and total imports of country  $i$ , while  $X_{j,t}$  and  $M_{j,t}$  are the world's exports and imports of country  $j$ . The application of the formula by Frankel and Rose to the flow of imports and exports linking Italy to non-EU Mediterranean countries studied (partner countries) has allowed the determination as mentioned above for each year and for the whole agri-food of the indices of intensity of bilateral trade.

The index proposed by Traistaru (1984), determined following is defined in a manner similar to the index of Frankel and Rose, but, unlike the latter, is calculated for the period as indicated above and in accordance with the procedures set out below.

$$T_{ij} = \frac{X_{ij,t} + M_{ij,t}}{X_{i,t} + M_{i,t} + X_{j,t} + M_{j,t}}$$

The analysis of the results can, as in all trade analysis using the money flows of trade, the effect is affected by the exchange rate between the national currency (the euro for reporter countries) and countries when you export (especially those that have different currencies) and the income level of countries such exchanges are made, both in this case, the phenomena of border trade that can generate, the physical proximity of the countries between such exchanges are made, the flow of indirect transit.

## The structure of the agri-food trade with the Mediterranean partners

The analysis of Italy's agri-food trade with partners of North Africa and the Near East, in relation to the 24 chapters agribusiness, has allowed, on the one hand, to identify key segments of the agri-food sector where are most of the exchanges with the most important markets for Italy. In terms of trading volumes, have been identified agribusiness as many as 7 chapters that focus on only 65.4% of total trade with the area. More specifically, the chapter has a greater weight within the total agri-food trade with the countries dealing on "animal or vegetable fats and oils, cleavage products, prepared edible fats, waxes of animal or vegetable" (Animal or vegetable fats and oils and Their cleavage products, prepared edible fats, animal or vegetable waxes), which intercepts with a trading volume amounted to 5.0 billion dollars, 16.4% of the agri-food trade. For purposes of this chapter, the most important trading partner is Tunisia, which, in the last five years (2006-2010), intercepts 75.8% of trade within the region, recording a positive trend during the fifteen years of reference; considerably more modest are the weights of Syria (7.2%) and Turkey (7.1%), the latter country, in particular, show a considerable decline in trade to be compared to the first five years that the second five years of

reference (respectively, 18.0% and 21.9%). Another sector of great importance is that of "edible fruits, peel of citrus fruits or melons" (edible fruits and nuts, peel of citrus fruit or melon), which has a weight of the food trade, amounting to 14.6 %. In this segment, a privileged partner for Italy, it is Turkey, capturing as much as 68.0% of trade in the period 2006-2010, recording, however, over the first five years of reference, a reduction in the intensity of bilateral trade compared to those that Italy weaves with other area partners (70.5% in the period 1996-00); significant is the growth recorded in the case of Israel, from 7.3% in the first five years, goes to 10.2% of the last (2006-2010), allowing them to have a greater impact compared to Croatia, he sees, however, a reduction of its shares of 11.9% five-year period 1996-00, to 5.4% of five-year period 2006-10).

The agri-food trade with the countries of the Italians, also concern the "fish and crustaceans, molluscs and other aquatic invertebrates" (fish and crustaceans, mollusc and other aquatic Invertebrates), absorbing a share of the agri-food trade amounted to 10.67%. Among the main trading partners are Italy detects Morocco, which holds the record for the entire fifteen years of reference, capturing a share of 32.8% of market volume in the period 2006-10, a decrease, however, compared with where the first five years showed an incidence of 38.9%, followed by Tunisia, (32.6% in 1996-00 and 27.8% in 2006-10) and Croatia from 13.6% in the first five-year period (1996-2000), goes to 18.80% last five years (2006-2010). Regarding the sector of "vegetables, plants, roots and tubers," (Edible Vegetables and Certain Roots and Tubers), which accounts for 6% on the agri-food trade, the main trading partners are Italy, Egypt and the Turkey. In particular, a comparison between the five-year terms of reference, is Egypt to record significant growth, from 11 a share, 86%, on volume of total trade in the first five years, to 44.89% last while Turkey, reveals an increase in absolute terms, but in contrast, a decrease of allowances that go from 16.05% in the period 1996-00, to 14.44% in the period 2006-10.

The analysis of the segment of the grain, there was an overall trading volume amounted to 1.78 billion dollars, corresponding to about 6% of trade within the area of Italy. Among the partner countries, Tunisia intercepts 29.1% of trade volumes in the last five years (2006-2010), followed by Turkey (28.8%) and Croatia (18.8%).

Another important segment is the "preparation of vegetables, fruit, nuts or other parts of plants" (preparation of vegetables, fruit, nuts or other parts of plants), which accounts for 5.5% of trade volumes traded from Italy within the Mediterranean. For the products studied, a major Italian partner is Turkey whose weight on trade with partners in the whole area, going from 42.66% to 45.53% between the first and the last five years of reference, followed by Croatia (13.0% in the period 2006-2010) and Israel (10.46% compared to the sharp contraction in the first five years). Finally, another sector of great importance is that of "sugars and sugar confectionery" (Sugars and sugar confectionery). Among the major markets for Italy include Croatia (44.7% of the market volume of this chapter) and Israel (19.3%), the latter country, in particular, is emerging as an important Mediterranean partners among those considered for the sector studied.

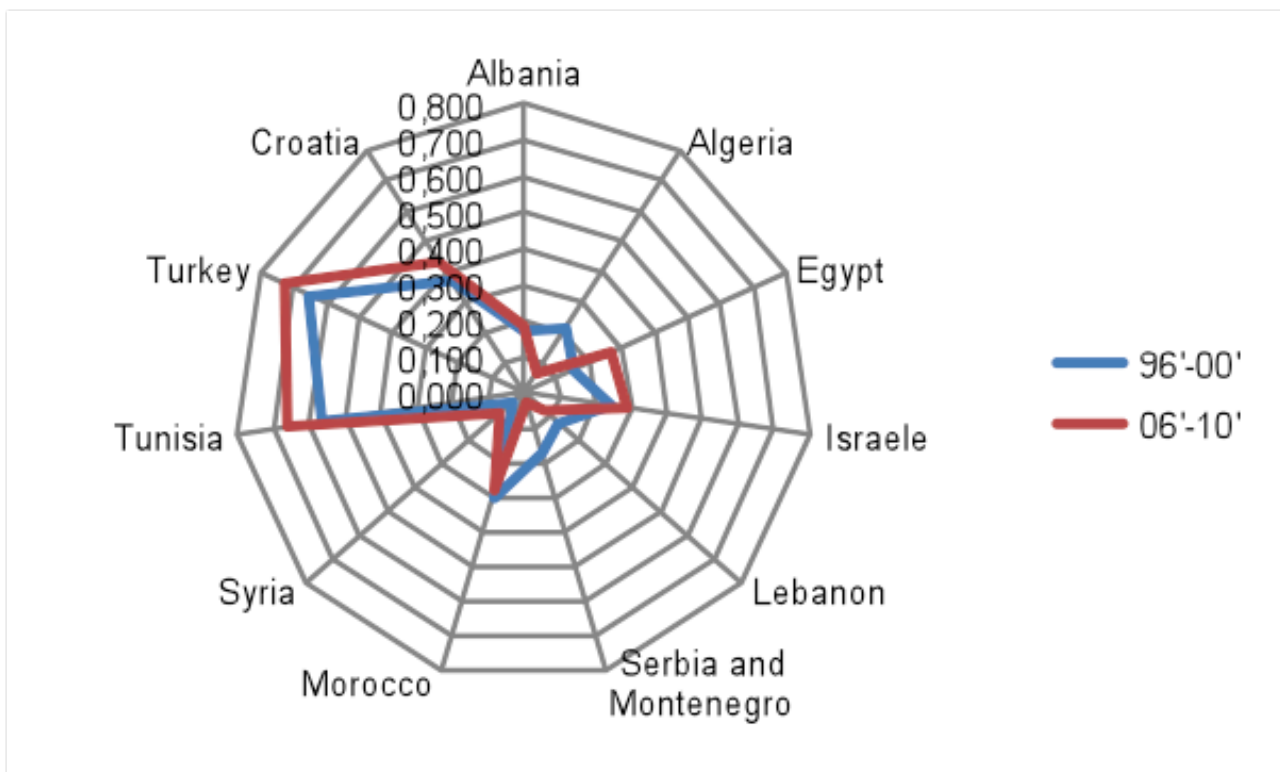
## The intensity of bilateral trade between Italy and the Mediterranean partners

Understanding the dynamic of the intensity of trade between Italy and the partners of North Africa and the Near East, in the light of the results of the calculation of the indices of Frankel and Rose and Traistaru, requires, first, knowledge of many factors in able to influence the intensification or weakening of trade between countries. In particular, are

crucial signing of Association Agreements and the Stabilization and Association Agreement between the EU and Mediterranean partners, as well as those signed between these countries and other geo-economic areas, but also the physical proximity of the countries, and the economy economic conditions of countries involved in bilateral trade, as well as the production specialization of these countries in the agricultural fresh food or processed products.

The results of Frankel and Rose Index for the two five-year reference point to a weakening of the agri-food trade, with an index value which rose from 2.612 to 2.595 from the years 1996-2000 to 2006 -10, in this period, we can see an intensification of trade flows and in particular of the Italian imports of food products from partners from the area (Fig. 1). Such results, though, as noted above, point to a growing dependence of Italian food products, reflect, also, a diversification of the markets of Italy and a gradual erosion of the centrality of the partners in North Africa and the Near East in the agri-food trade, addition, in some cases, an increasing opening to the world market economy of some partners.

The analysis of the Traistaru Index for the period of reference and for a single trading partner highlights a greater intensity of agri-food trade between Italy and Turkey, Tunisia and Croatia, countries with which it detects, through index reading of Frankel and Rose, an overall intensification of trade in food products. A special partner is Turkey, which is one of the most important agricultural Mediterranean power, which it detects a growing intensity of trade with an index value that goes from 0.564 to 0.659, despite the growing agri-food trade of Turkey in the international market. In the same period there was also an intensification of trade with Tunisia; this positive trend could be attributed, on the one hand, the physical proximity of the two countries with which they appear, however, even the most intensive maritime connections (Crescimanno et al. , 2011), and, secondly, the entry into force in 1998 EU-Tunisia Association Agreement. Other important trading partner is Croatia, especially in the areas of agri-food exports. The growth index of intensity between the first and the second five years (from 0.370 to 0.519) was partly due to the signing of the Stabilization and Association Agreement, in contrast, after the entry into force of the Agreement in 2005 there a negative trend with an erosion of bilateral trade. With reference to the remaining partners in the area, as is stated, on the one hand, an intensification of food flows with Egypt and Israel, as a result, however, a growing dependence on Italy's agri-food products from these countries, and, a reduction in trade with Morocco and Algeria, as a result of an increasing opening of these countries to the international market.

**Figure 1 – Trade intensity between Italy and Mediterranean Countries**

Source: Our elaboration on UNComtrade data

Overall, the weakening of bilateral trade between Italy and the countries of the area can also be read in light of the effects of the crisis that is weakening from the last year the Italian economy, already perceived as weak, and that showed as modest rates of growth since 2007 than those reported from other Mediterranean countries with high income and negative since 2008 (Daniele, 2010).

### Concluding remarks

The analysis of the intensity of trade flows of food products from Italy and the partner countries of North Africa and the Near East has allowed us to trace a network of flows between the countries in the area. If we can see an overall weakening of the agri-food trade, the analysis for individual partner states, however, shows a strengthening of ties with Turkey, Tunisia and Croatia, which are among the most important trading partners, but also with Egypt, in the face instead of a detriment intensity of agri-food trade with Morocco and Algeria. These trends reflect the signing of the association or the stabilization and association Agreement, in which in those fifteen years have been signed and entered into vigori, rather than the physical proximity of the countries involved, the production specialization of countries involved in bilateral trade, as well as the economic climate. The attempts to create a single market for agricultural Mediterranean where Italy could play a central role for its strategic location in the heart of this seaside town has had limited success so far and this is due mainly to bureaucratic structure that protectionist still characterizes the exchanges between the two sides. although it has progressively become less strong, as recently happened with the agri-food trade agreement EU-Morocco, it continues to be characterized by the imposition of substantial tariff and non tariff barriers. For this reason, the regulatory approach in priority areas such as food



safety and health regulations and phytosanitary conditions are necessary for deepening the relations in place ensuring a strengthening of trade relations in the area.

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# The role of information and communication technologies and logistics organization in the economic performance of Sicilian fruit and vegetable enterprises

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## Abstract

*Through a direct survey conducted on a sample of firms operating in the Sicilian fruit and vegetable sector, the present study provides an empirical evidence on the degree of diffusion of ICTs as well as on relationships with the regional distribution system. To pursue this goal, a multiple regression analysis model was implemented to identify which factors affect more the economic results of fruit and vegetable enterprises. The main results of the analysis indicate that firms using specific software for accounting, warehousing, payment and sales orders and contracts, are more likely to obtain higher economic performances under the “coeteris paribus” condition, as well as firms which are equipped with larger plants for product processing. As to other variables dealing with logistics, it was not possible to extend the model results to the whole population of fruit and vegetable firms, since their coefficient estimates were not considered significant.*

*Keywords: ICT, Logistics, Fruit and Vegetable, Linear regression analysis*

## Introduction

The agri-food industry has recently been undergoing significant changes, due both to markets internalization and to the evolution of consumers demand: these changes have led to a profound reorganization of production systems. In this context, information and communications technology (ICTs) and logistics are important tools to support the sector throughout this intense process of changing.

The paper focuses on one of the most important economic sectors in Sicily, fruit and vegetables, which shows a significant contribution to the value added of the regional agricultural sector. In fact, the fruit and vegetables output at basic prices in terms of current values in the 2009-2010 period is on average about 1.784 billion euros (a 21.4% increase in comparison with the 2000-2001 period), representing 46.5% of the Sicilian agriculture production and 15.6% of the national fruit and vegetables sector in terms of output (ISTAT 2012a). In terms of surface area, fruit and vegetables are cultivated on 265.4 thousand hectares in the 2009-2010 biennium, correspondent to 22.6% of national area. The harvested average annual production amounts to just less than 3.5 million tons (13.7% of national production) (ISTAT 2012b). The recorded trade balance in fresh fruit and vegetables of the last biennium is around 230.9 million euros (INEA 2010).

The aims of the study is to provide an empirical evidence on the degree of diffusion of ICTs as well as on relationships with the regional logistics system and this is justified by the fact that the fruit and vegetable sector is heavily export-oriented, and thus, ICTs and transportation issues receive significant attention. Based on the data collected through a direct survey carried out on a sample of firms operating in the fruit and vegetable sector, the paper proposes to highlight the existing relationships between the different uses of ICTs and logistics in the investigated enterprises and their economic results.

## Short literature review

Nowadays, the agri-food sector is facing an increasingly difficult business climate, due to globalization, more and more competition, high concentration of the retail sector, even more complex requirements on food safety and quality assurance. Given these challenges, ICTs and logistic activities are necessary tools to support the sector during this intense process of change and for boosting the economic development of the agri-food firms.

With this regard, several empirical surveys were carried out in order to learn about the current use of ICTs by firms operating in agricultural and agri-food sector. Specifically, functions for which ICTs are requested by firms were investigated, and in particular the Internet and related services (Stricker et al 2003; Warren 2002; Taragola et al 2001). Most studies conclude by stating the importance of ICTs in agricultural management, so much as to consider them as determinants for success of firms (Warren 2002; Taragola et al 2001). In particular, some studies point out that mainly in market-related activities firms working without the use of ICTs will probably have their competitive power eroded, therefore running a high risk of marginalization (Taragola et al 2001); therefore, the adoption of ICTs becomes a matter of survival (Schiefer 2004). An evidence found out in most empirical studies is the positive correlation between the adoption rate of ICTs and the enterprise size (Sassu and Lodde 2004; Jones et al 2003; Hawkins and Prencipe 2000; Deakins et al 2004), as well as with firm productivity (Dewan and Kraemer 2000; Lio and Liu 2006). Other findings concern, particularly in the agri-food sector, the sluggishness in the implementation of such tools (Mitchell and Clark 1999; North and Smallbone 2000; Canavari et al 2009).

Another key factor in the analysis of the competitive capacity of enterprises is logistics. In particular, among the multiple logistic functions, transport has become particularly prominent since it concerns different stages of the supply chain.

The agri-food sector is a large user of freight transportation services worldwide, therefore the importance of transportation is critical, as agricultural production occurs in numerous parts and rural areas worldwide, while the major part of consumption takes place mainly in big cities (Oberhausen 2002; USDA 2002; Manthou et al 2005). Transportation is a very important activity for the fruit and vegetable sector because of the specific characteristics of the products, for which it is necessary to match biological with distribution times in order that the qualitative characteristics of processed products are not altered. For high value-added and perishable products, such as fresh fruit and vegetable produce, transportation must be quick and secure (Crescimanno and Galati 2007; Manthou et al 2005).

## Methodological approach

The survey was carried out in 2010<sup>2</sup> through face-to-face interviews where a structured questionnaire was administered to a non-probabilistic sample of 50 firms, localised in the main productive hubs of Sicily, which operate both in the production and commercialisation phases or just in the commercialisation phase of the supply chain in the Sicilian fruit and vegetables sector. The selection of firms took place with the support provided by some “opinion leaders” involved in the productive and commercial process.

Before data collection, a pilot survey was carried out on a sample of enterprises to test the questionnaire. The final version of the questionnaire consists of 4 sections, each of them directed to investigate structural, commercial, information systems and logistic aspects. Particular attention was paid both to the analysis of the equipment in hardware and software facilities, with a specific interest in the integrated use of Internet in the firm strategies, and to the relationships of firms with the infrastructural system of Sicilian Region Board through the acquisition of information related to transport modes and to related issues.

Given the high number of information collected in the interviews and the predominant presence of qualitative variables – as far as the degree of firm computerization and the relationships of firms with the distribution system are concerned – Multiple Correspondence Analysis (MCA) was carried out, through which it was possible to synthesize the information contained in the data matrix into a smaller number of variables, which successively were analysed through a multiple regression analysis which allowed to identify the factors which affect more the economic performance of sampled enterprises.

## Results - General characteristics of surveyed enterprises

The surveyed firms mainly work in the fields of production and commercialization (44 out of 50) and just in 6 cases in the field of commercialization. In the 2008-2009 period, fruit and vegetable production put on the market amounted to 427,400 tons, with a correspondent value of 274,400,000 euro.

The output contributing to satisfy the demand not only from the other Italian regions (55.0% of the overall traded volume), but also from foreign (24.6%) and local (20.4%) markets.

With respect to ICT integration, from the interviews the respondents state the awareness of the ICT importance in order to improve the efficiency of the activities, to communicate the image of the firm, to increase productivity, to make and hold traceability systems.

The investigated firms show an average number of PCs equal to 8, mainly used for administrative and sales functions, and only rarely in quality management, marketing, logistics, etc.

All the enterprises adopt a network connection, that is used in order to search information, to access bank and public administration services, to look for customers and suppliers.

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<sup>2</sup> Information provided by firms refer to 2009, whereas those ones concerning production and commercialisation of vegetable and fruit are referred to 2008-2009 biennium.

Telephone, fax and emails are still the most widespread communication means: VOIP and Instant messaging systems are not very common in the sample firms.

With regard to software facilities, management information systems are used just by 24 firms, mainly for account, financial and sales management.

Business Intelligence systems are rarely used for report presentations on firm performances over time.

The number of firms which has its own website is not marginal (34 units), although they are just used as window or informative websites, offering just in a small number of cases sales services, such as e-commerce applications (4 firms), or community, forum and chat services, as tools for customer fidelization.

With regard to logistic aspects, in all the firms surveyed transport is delegated to other companies and it is carried out, prevalently on the "road" or by the "road-sea" combination.

On one hand the firms interviewed often succeed in truck or ship loading for output, on the other they disclose practical troubles when loading trucks or ships with inputs, above all due to the heavy capillarization of suppliers dealing with fruit and vegetable products.

Operators are deeply aware of the importance held by the logistic infrastructures in the perspective of a better distribution efficiency, and believe that these infrastructures would bring about a "quite high" or a "very high" advantage. The regional road and port networks are through and through inadequate if compared to the actual requirements of carriers and to the handling charge of highly perishable goods, and concur in protracting distribution times and in rising transport costs.

## Results of the regression analysis and discussion

### The choice of variables

The high initial number of variables available for the statistical analysis (121) and its unbalanced ratio to observations has suggested to reduce it drastically through a Multiple Correspondence Analysis (MCA), multivariate technique suitable to synthesize information. At the end of the MCA processing, a smaller number of active variables (in combination with supplementary variables) was identified and considered useful to explain the current scenario concerning ICT use and logistics strategies in Sicilian fruit and vegetable firms.

The aim of the following part of the research was to identify the main factors affecting more significantly the economic performance of these firms, with a particular interest in ICTs and logistics aspects.

For this purpose a multiple regression analysis was performed by using a specific statistical software, SPSS 17. Firstly the functional form of the model was chosen, on the basis of the calculation of the Likelihood Ratio (LR), which indicated to adopt a linear model. Through the Variance Inflationary Factor (V.I.F.) statistics, variables more likely to be affected by multicollinearity were detected and excluded by the model. After this step,

the number of independent variables was equal to 10 (Table 1), while the considered dependent variable was the value of the firm commercialised production of fruit and vegetables.

$$VF\_VALUE = \beta_0 (\text{Const.}) + \beta_1 (\text{SOFT\_ORD\_WARE}) + \beta_2 (\text{SOFT\_PAY\_CONT}) + \beta_3 (\text{SOFT\_QUA\_MARK}) + \beta_4 (\text{INT\_BAN\_PADM}) + \beta_5 (\text{INT\_CUST\_SUPP}) + \beta_6 (\text{COMB\_RO\_SEA\_TRA}) + \beta_7 (\text{USE\_LOGI\_INFR}) + \beta_8 (\text{MAS\_RET\_PROD/TOT\_SOLD\_PROD}) + \beta_9 (\text{PROD\_REGION\_DESTIN\_SOLD/ TOTAL\_PROD\_SOLD}) + \beta_{10} (\text{PROC\_BUILT\_AREA})$$

**Table 1 – Variables utilised in the adopted linear model**

Variable	Label	Categories
Software for Orders and Warehouse	SOFT_ORD_WARE	1 = Yes; 2= No
Software for payments and contracts	SOFT_PAY_CONT	1 = Yes; 2= No
Software for quality and marketing	SOFT_QUA_MARK	1 = Yes; 2= No
Internet for bank and public administration	INT_BAN_PADM	1 = Yes; 2= No
Internet for customers and suppliers	INT_CUST_SUPP	1 = Yes; 2= No
Combined Road and Sea transport mode	COMB_RO_SEA_TRA	1 = Yes; 2= No
Use of logistic structures	USE_LOGI_INFR	1 = Yes; 2= No
Ratio between product sold to organised mass retailers and total product sold (%)	MAS_RET_PROD/TOT_SOLD_PROD	1= Up to 10%; 2=10.1-30%; 3=30.1-50%; 4=50.1-75%; 5= Over 75%
Ratio between production sold in the same region and overall production (%)	PROD_REGION_DESTIN_SOLD/ TOTAL_PROD_SOLD	1= Up to 10%; 2=10.1-30%; 3=30.1-50%; 4=50.1-75%; 5= Over 75%
Building area destined to production processing (SQM)	PROC_BUILT_AREA	Value in sq.m

## The results of the model

The results of the model, summarised in table 2, show an acceptable value of adjusted  $R_2$ , equal to 57.7%. Among the variables included in the model, three variables are significant according to t statistics. Among them, there is only one quantitative attribute, PROC\_BUILT\_AREA, which seems to be positively related to the value of commercialised output of firms, since its estimated coefficient has the +(plus) sign, revealing a direct proportionality with the dependent variable. This finding is consistent with our expectations on the phenomenon, since a firm equipped with large plants and machinery for processing vegetable and fruit, is more likely to obtain higher revenues from the sales of its products. The confidence of this coefficient estimate is 99%, therefore the “a” error is lower than 1%. The other significant variables of the model - SOFT\_ORD\_WARE (95% confidence) and SOFT\_PAY\_CONT (90% confidence) - are two attributes which are the result of previous variables’ transformations, carried out in order to reduce the initial number of variables. Both were binary variables, which expressed use (0) or non-use (1) of specific managerial software dealing with orders, warehouse organisation, payments and contracts, and each of them converged in a different variable, capable to group similar concepts. In terms of values assigned to the new variables, the criterion of the average was followed: the average of the values of the initial variables was calculated, therefore the new variables for each observation assume the values derived from the sum of the initial values, divided by the number of the initial variables.

The signs of their coefficients are negative: the meaning is that firms which do not use specific software (1) are likely to have a lower output value when compared to firms that use them (0, and vice versa). Their magnitudes are approximately 5 million euro.

The intercept is statistically significant, as the t Student statistics shows a level of confidence higher than 95%, and its magnitude is over 13 million euro.

**Table 2 – Results of the adopted model**

Dependent variable = VF_VALUE				Adjusted R <sup>2</sup> = 0,577
Variable	Coefficients	Standard error	Student t statistics Significance	Variance Inflationary Factor (VIF)
COST	13.314.605,14	5.611.530,97	0.023**	
SOFT_ORD_WARE	-5.279.980,95	2.209.804,32	0.022**	2,095
SOFT_PAY_CONT	-5.788.240,90	3.184.168,32	0.077***	2,382
SOFT_QUA_MARK	4.662.010,98	4.037.927,63	0.255	3,515
INT_BAN_PADM	-2.007.827,62	2.029.258,95	0.329	1,595
INT_CUST_SUPP	606.440,11	1.769.414,81	0.734	1,378
COMB_RO_SEA_TRA	-65.767,27	1.807.361,18	0.971	1,906
USE_LOGI_INFR	230.954,63	2.379.563,29	0.923	2,041
MAS_RET_PROD/TOT_SOLD_PROD	567.980,94	522.671,87	0.284	1,729
PROD_REGION_DESTIN_SOLD/TOTAL_PROD_SOLD	44.673,53	630.601,11	0.944	1,877
PROC_BUILT_AREA	753,622	169,89	0.000*	1,399

Legend: \* 1% significant; \*\* 5% significant \*\*\* 10% significant.

## Final considerations

In the firms of the sample, basic ICTs are quite easily used, while from data gathering it emerges a low propensity of firms for implementing more advanced technologies. This could be ascribed to an operational difficulty met by most operators in business transactions to interface with the most innovative ICT tools, and particularly in the field of e-commerce. The limited diffusion of e-commerce among the investigated fruit and vegetable firms is strictly related to the general trend of the agri-food sector, and in particular to the specificity of agri-food products.

With regard to the relationships with the regional logistics system of a sample of Sicilian firms, one of the main criticalities emerged from the interviews concerns both inward-bound and outward-bound goods loading, which is often incomplete due to the extremely small average size of fruit and vegetable firms. An effective distribution of fruit and vegetable production is however thwarted also by the regional infrastructural inefficiency and by the limited number of services provided by the few logistic structures currently present in the regional territory (Schimmenti et al 2008).

The results of the regression analysis summarised in the previous section give important insights on the role played by some managerial aspects related to ICTs and – partly – to logistics organisation, besides the urgent need for a larger operational size of the firms working in the Sicilian sector of fruit and vegetable, currently far from the optimal one, and thus limiting factor for their economic development.



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## Sustainable tourism in the rural areas of a Southern Italian region

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### *Abstract*

*In the last few years, a significant interest has been observed about all the possible ways rural tourism is carried out, but especially concerning agritourism, which represents the main specific application. Rural tourism is a form of sustainable tourism since its pillar is constituted by both valorisation and conservation of the environmental and territorial situation where economic activity is carried out in tune with identity and culture of local communities.*

*From the official statistical data, it brings out the fact that this economic activity, widely spread in the Italian territory, may provide a significant financial support both to agricultural firms and to the whole economic sector of tourism, allowing as well to redistribute touristic flows from coastal to inland areas.*

*The main aim of the present research is to analyse the agritourist supply in Sicily in relation to the land resources, and the main factors which may affect the possibility of success for agritourist entrepreneurs. Among these characteristics, the analysis carried out has concerned environmental certifications, landscape rurality, organic farming system and localization in protected areas.*

*Information gathered from regional statistics was supplemented by primary data, collected through a series of interviews on a representative sample of agritourist entrepreneurs who work in different rural areas of Sicily.*

**Keywords:** Agritourism, Sustainability, Rurality, Sicily

### Introduction

The European Union in the COM (2007) 621 “Agenda for a sustainable and competitive European tourism” relaunches sustainable tourism as one of the pivotal sectors within Lisbon Strategy about competitiveness and employment, and points out that the competitiveness of the European touristic sector in the long-run depends on its sustainability.

Also the Italian Strategy for Sustainable Consumption and Production (2008) mainly focuses on the touristic sector, due either to its economic importance and to its strict ties with the policies for sustainable development.

According several studies (European House Ambrosetti 2007; Rapporto FutureBrand 2007 Price Waterhouse Coopers 2007), the quality of touristic supply, in terms of both its environmental component and its sustainability in the relationship between services and territory, is one of the keys to the revitalization of the sector.

Within sustainable development, rural tourism represents a sort of sustainable tourism, since it is grounded on the protection and valorization of land and environmental context where the activity is practiced in tune with the identity and culture of local communities. It is therefore coherent with the definition of sustainable tourism adopted by the World Tourism Organisation (UNWTO), which states verbatim: "A form of development which satisfies the current requirements of tourists and host communities, conserving at the same time resources and ensuring income-earning opportunities".

Over the last few years, a rising interest was observed in all the forms of rural tourism, and particularly in agritourism which is its principal component.

Agritourism not only represents a significant resource to farmers, but also contributes to the local development of marginal and rural areas, as they show a touristic demand which is strictly related to environmental, cultural and gastronomic heritage (Cupo 2003; Di Franco 2005; Forleo 2007; Idda 2001; Malevolti 2003).

From the official data concerning agritourism in Italy (ISTAT 2010), it comes out that this economic activity is widespread, with 19,973 agritourist farms, 2.1 million arrivals and 9.49 million overnight stays and a business volume of 1,081 million euro (Agritourist 2010). Among the different farm typologies, agritourisms producing organic products have been leading over time in the sector, as they combine the use of low environmental impact cultivation techniques with land conservation.

On the basis of the above information, the current study aims to analyse the organic agritourist supply in Sicily, also in relation to land resources and to the factors which can affect the success of agritourist entrepreneurs.

The analysis here carried out has taken into account quality and environmental certifications, landscape rurality and farm localisation in protected areas. The above data were collected through interviews administered to a sample of agritourist entrepreneurs working in various rural areas of Sicily, through an "ad hoc" questionnaire.

## Aims and methodology of the study

The main aim of the research is to go into depth on the phenomenon of sustainable tourism by analysing the agritourist supply in Sicily in relation to the factors which can affect the success of agritourist entrepreneurs.

The study focused in particular on organic agritourist farms, identifying the different accommodation typologies which are environmentally friendly and that can be defined "sustainable", as they ensure the diversification of the agricultural activity and at the same time they represent a development factor for rural economy.

In the literature, several studies are found that deal with the quantitative aspects of the agritourist phenomenon, but very little research has paid attention to the qualitative nature

of farms, their certification systems, the degree of rurality of land, the presence of valuable environmental resources in the surroundings.

In order to carry out the explorative analysis, firstly the statistical population of organic agritourist farms in Sicily was identified. Since current regulations do not provide any definition which allow to characterize this farm typology, farms which adopt organic practices and are properly registered for one of the recognized Certification Boards were considered in the analysis.

From the Regional Directory of the Board for Agricultural and Food Resources, in 2010 the whole Sicilian organic agritourist farms universe consisted of 76 farms.

Next, the analysis of the territorial uniqueness of organic agritourist supply in Sicily, and the location of tourist attraction areas in Sicilian territory, allowed to examine the presence of relationships between territorial location and supply agritourist services.

In order to set the farm sample, the farm universe was stratified according their territorial distribution (province) and in terms of rurality, naturalistic value and conventional touristic worthiness.

In relation to rurality factor, the study has adopted (endorsed) the classification of rural areas used by the RDP for Sicily 2007-2013, which identifies 4 wide areas with a growing rurality: (A) Urban areas; (B) Rural areas with specialised intensive agriculture; ( C ) Intermediate Rural Areas; (D) Rural Areas with general problems of development (Pirrello 2012).

Naturalistic value was assigned to town territories within areas at high naturalistic value (Parks and Reserves), from the Sixth National List of the Ministry for Environment and Land and Sea Protection.

As to town land of touristic interest, we referred to the "1<sup>st</sup> Report on tourism in Sicily" (Regional Board for Tourism, Communications and Transport, 2000), which identifies and classifies different typologies of touristic areas on the basis of the organizational structure of supply (seaside, artistic, archaeological, etc.).

A representative farm sample was selected, formed of 40 organic agritourist farms (correspondent to 52.6% of the overall number of farms at regional level), distributed in 7 provinces. An "ad hoc" questionnaire was administered to all the sample farms in the period between January and February 2012.

## Organic agritourisms in Sicily and their territorial context

In 2010 (Regional Directory of the Board for Agricultural and Food Resources), authorized agritourist farms in Sicily were on the whole 593, showing approximately a 33% increase compared to 2008 number. Within them, an important role is played by organic farms, which turn out to be 76 (12.8% of overall Sicilian agritourisms). With regard to their territorial distribution, as many as 92% of farms is gathered in just 3 provinces (Messina, Catania, Enna), whereas they are absent in Siracusa and Trapani provinces.

In relation to the aims of this study, we thought it would be better to explore especially the territorial scenario of organic agritourist supply in order to outline the uniqueness of the

sites, in reference to rurality, naturalistic and touristic value, and their relationships with the demand for an alternative tourism.

The great majority of organic agritourisms (95% out of total number) works in highly rural towns (C and D areas), and in particular in the hilly and mountainous areas of the Island, while the others (5%) are in urban areas (A area), where they play a leading role in touristic terms, and in those areas characterised by intensive agriculture (B area). The latter category does not show either touristic or naturalistic value (see Table 1).

**Table 1 - Classification of organic agritourist farms by site specificity in Sicilian provinces (no. of farms)**

	AT	B	C	CN	CT	D	DT	DN	Total
Agrigento		1						2	3
Caltanissetta							1		1
Catania	1	1	9	3	2			3	19
Enna						6	2	6	14
Messina	1		16		1	9		10	37
Palermo					1				1
Ragusa				1					1
Sicily	2	2	25	4	4	15	3	21	76
%	2.6	1.4	32.9	5.3	5.3	19.7	3.9	27.6	100.0

Legend: A - B - C - D = increasing degree of rurality; N = natural; T = touristic.

Source: Our processing on the results of sample gathering.

C areas are rarely localised in naturalistically and/or touristically attractive towns, whereas marginal rural areas are usually characterised by a high naturalistic value and a traditional touristic value, confirming the close relationship of reciprocal valorisation which exists between agritouristic farm and territorial natural resources.

It is therefore possible to point out that organic agritourist supply is more related to rurality and to naturalistic heritage rather than to the presence of areas of interest to conventional tourism.

Spread of agritouristic activity within the identified areas therefore plays a strategic role under many respects.

In some towns, organic agritouristic farms help to relieve the traditional touristic flows which in some areas are considerable due either to the proximity to big cities or to the presence of areas at high tourist attraction.

In most cases, on the contrary, activity is oriented towards a demand of “alternative tourism” strictly related to the environmental, rural and wine and food heritage, and it contributes to the development processes in rural areas, to the redistribution of touristic flows from coastal to inland areas and, finally, to the environmental sustainability of agritouristic activity by creating positive synergies with the protected environment.

## Results - The structure of sample farms

The average size of sample farms, expressed in terms of Total Agricultural Area (TAA), is approximately 44 hectares; in 60% of the sample, farm size is below 10 hectares and only in 12% of farms it is over 100 hectares, highlighting a heterogeneous size structure.

Crops cultivated in the farms, which represent a strictly characterizing element for landscape, widely differ depending on their location as they reproduce the uniqueness of the different areas surveyed.

From the analysis of farming types among the investigated farms, it emerges that prevalent crops are olive groves and citrus (respectively present in 77% and 57% of sample agritourisms), followed by vines (35%) and other fruits (17%); vegetable crops and arable (the latter often associated with livestock) are not very common. Livestock farming was surveyed in 20% of investigated farms and mainly concerns small-sized animals (poultry and sheep and goat) and equines, the latter designed for sport and leisure activities of farm guests. Bovines and swines are not quite common.

### Agritourist services

Agritourist activity combines agricultural activity, rural accommodation and a series of additional services.

In relation to offered services, farms were grouped in 4 principal typologies which represent the different forms of agritourism present in the regional land area (see Table 2). The most widespread category of services, present in 67.5% of sample farms, is the one which comprises, besides accommodation and catering, also other services; 20% of farms provide lodging and other activities, while the others only provide accommodation (10% of overall sample farms) and catering (2.5% of the sample).

	Farms	
	No.	%
Catering- Lodging- Other activities	27	67,5
Lodging – Other activities	8	20,0
Lodging	4	10,0
Catering	1	2,5

Source: Our processing on the results of sample gathering.

Catering (restaurant) service represents a key factor for competition as (since) it ensures naturality, craftsmanship and tradition of food products and allows, furthermore, farms to increase the value added.

With regard to the supply of other activities, leisure services for guests entertainment represent a distinctive element of agritourist farm compared to traditional hotel accommodation, as they allow guest to get a direct contact with nature.

Both sports (horse-riding, trekking, swimming, archery, mountain bike, ecc.) and cultural activities (cooking, food and wine tasting, painting, organic farming, pottery courses) are among the recreational activities proposed by the sample farms.

Another distinguishing feature of agritourist activity is the direct sales of agrifood production obtained from the same farm or from other local farms, which supports the tight link with the agricultural sector; the farms which offer this service represent 79% of the surveyed agritourisms. The same products are also used to propose the tasting or catering activities for their guests.

Sales channel based on a short chain are predominant and allow entrepreneurs to develop a direct relationship with consumers and to build customers' retention.

Farms are more oriented towards olive and olive oil production (77% of total farms), citrus and fruit (75%), included dried fruit, and finally towards food preserves and jams (67% of sample farms).

Among the services offered by the agrotourist enterprise, the knowledge of one or more foreign languages by the agritourist operators was considered in data gathering, since it is a clue of the degree of attention towards market and of the entrepreneur capacity to adapt themselves to higher quality levels of supply. From the survey it emerges a generalised good level of knowledge of foreign languages among touristic entrepreneurs, surveyed in 82.5% of investigated farms.

English and French (77.5% and 67.5% of entrepreneurs respectively) are the most spoken languages among the sampled agritouristic operators. On the other hand, Deutch and Spanish are spoken by entrepreneurs in 25% and 15% of cases. Other spoken languages are Portuguese and Russian.

The majority of farms practises agritouristic activity throughout the year (77%), while the others work in relation to a seasonal demand for holiday, which concerns summer months (from June to September) and festivity.

As far as demand trend is concerned, in 2011, 70% of entrepreneurs stated to have recorded a growth of arrivals compared to 2010 - despite the severe crisis which has been affecting the whole sector - 27% of them has observed a fall of touristic flows, whereas the remaining 3% of interviewees has not noticed any change in the demand.

## The sustainable performance of sampled farms

In order to verify sustainability of organic agritouristic farms, some activities able to limit the environmental impact were checked: in particular, both the presence of farm activities which contribute to energy saving and the implementation of quality management and environmental systems.

Most agritouristic operators (92.5% of interviewed entrepreneurs) have stated to have already activated measures able to reduce impact on environment, starting from the technologies adopted to limit energy consumption. In particular, 47.5% of interviewees has chosen to complement the classical energy sources with solar or photovoltaic panels; 32.5% of entrepreneurs contributes to reduce their atmospheric emissions by means of condensation boilers (Figure 1).



**Figure 1 – Energy saving measures adopted by organic agritourisms (no. of farms)**

$$\text{SCORE}_n = \phi + \sum_i^4 \sum_n^N \alpha_i \text{EXPOS}_{i,n} + \sum_j^4 \sum_n^N \beta_j \text{EFF}_{j,n}$$

Source: our data processing on direct sample survey

Activities concerning separate waste collection and use of low energetic consumption lights are widespread, since they are carried out by 77.5% and 87.5% of interviewees respectively, due to the modest investment costs necessary for the implementation of these measures.

The high number of farms investing specifically to help environment proves that the majority of operators is sensitive to ecological issues.

As to volunteer certifications, these mainly concern quality management of farm system (ISO 9001) and environmental quality (ISO 14001), and allow to check the degree of attention paid to environmental subjects and to sustainability.

In detail, from the survey carried out in the agritouristic farms, it emerges that 45% of interviewed operators is aware of these systems for quality management, while a bare 20% knows the ones concerning environmental management.

The limited knowledge of certification systems is confirmed by the small number both of certified farms and of those ones with certification in progress: just 15.0% and 7.5% of entrepreneurs has already implemented, or is about to make it, quality and environmental system respectively.

The reasons for such modest participation – according to the interviewees – can be ascribed to the complex procedures for certification and to the high costs to be borne in order to obtain and hold certifications.

## Final considerations

The analysis and interpretation of the data gathered in the direct survey carried out in 40 organic agritourism farms, allowed to draw some conclusions on both current situation and development prospects of sustainable agritourism in Sicily.

Investigated farms, generally located in highly rural areas with good endowment in natural resources, cultural and historical traditions, might give a contribution to foster synergic processes between local development of these areas and the environment.

Quality and nature of relationships between agritouristic firm, land and environment is one of the issues to which the present research has given close attention. From this point of view, it is important to point out that the territorial location of farm structures in marginal areas at high naturalistic value, constitutes a valuable resource for firms; as a matter of fact, the supply of natural resources and wine and food, cultural and historical traditions,

meets a demand for alternative tourism which has become more and more strengthened over the years.

From the survey it is possible to notice how agro food production play an important role in the strategies of agritouristic farms; the presence of catering and direct sale in most enterprises represents, besides a differentiation factor of rural accommodation, also a strategic opportunity for the valorisation of farm production and a tool to get a link with the local territorial context.

Also the services for guests entertainment – widespread in the sample farms – highlight the sustainability of agritouristic supply, by encouraging the direct contact with nature and rural traditions.

As to managerial decisions in terms of ecosustainability, the sample entrepreneurs - besides the adoption of productive systems environmentally-friendly (organic farming system) - pay particular attention to the technologies used in order to reduce negative impacts on environment.

Quality and environment certification systems, which could help differentiate agritouristic supply and ensure a better quality of services, are not commonly adopted among these operators. With this respect, organic certification, together with quality and environmental certifications, might reveal themselves strategic for agritouristic farms, as they would allow to integrate environment protection with agricultural production and the supply of touristic services in respect of sustainability.

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## The internationalization of retailers and manufacturers in the footwear industry: Different approaches in different countries

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### *Abstract*

*Over the last 40 years, the international footwear market has experienced substantial changes in terms of demand, supply and distribution and this phenomenon involves retailers and manufacturers. In this context the paper analyzes the different ways in which retailers and manufacturing companies have chosen to deal with the distribution policies in the international markets. Moreover the paper aims to highlight the “qualitative level” of internationalization of the analyzed firms in terms of kind of foreign markets entered. Considering the literature about the geographical waves of internationalization it is possible to understand if the footwear retailers and manufacturers have entered only the “traditional” foreign countries or if they are exploring also the new emerging markets.*

*In order to study this topic an empirical research was conducted, on the first hand data was collected from AIDA data base to find the main (in terms of turnover) Italian retailers and manufacturers in the footwear industry, on the other hand a data base was created with the location of direct and franchising stores in foreign countries.*

*We found a limited number of Italian retailers present in foreign markets with direct or franchising sales outlets. Different is the position of industrial firms in which more than 50% developed a process of vertical integration through the use of downward opening flagship stores in Italy and abroad.*

*A further results of the analysis is that the countries representing the traditionally recipients of Italian exports (France, Germany, United States) are not the same in which the larger manufacturing firms focus their direct commercial investment efforts (China, Japan, Russia).*

*Key words: retail, internationalization, footwear industry.*

### Introduction

The international distribution system in the fashion industry has been characterized in recent years by a profound process of transformation (Scafarto and Sansone, 2003; Burrelli, 2005; Gregori et al, 2009); this phenomenon has encompassed both retail operators and industrial companies.

With regard to industrial enterprises, recent years have seen a remarkable development in retail distribution policies aimed at promoting vertical branding strategies (Sabbadin, 2004) and control of distribution channels (Sciuccati, 2009), also at an international level (Aiello and Guercini, 2009). It should be noted that this development applies to both luxury goods companies and firms offering lower positioned products (Cappellari, 2008).

With reference to retail companies it should be noted that they have adopted autonomous marketing strategies since the 1980s, adopting a branding policy and making significant investments in communication activities (Lugli, 2003); furthermore, there has been a concentration process that has contributed to the birth and development of groups of ever increasing size.

With reference to the process of internationalization it appears that most studies have been carried out with reference to the American and English distribution sector (see, among others, Williams, 1992; Burt, 1993, Sternquist, 1997). In contrast, the literature has paid less attention to the internationalization of Italian retailers, in part due to the fact that the Italian retail sector has historically been principally characterized by phenomena of passive internationalization (with foreign distributors opening stores on Italian soil, or acquiring domestic enterprises) rather than an active internationalization of Italian retailers through the creation of a network of points of sale in foreign countries (Ferrucci, 2005; Sicca, 2004)<sup>3</sup>.

With specific reference to the Italian footwear distribution system it may be observed that, in the face of on-going modernization (such as the recent entry of new national and international competitors) the presence of many traditional players can be highlighted; approximately 40% of sales volume in the sector is still the preserve of independent multi-brand retailers (Largo Consumo, 2008). In this sense it is interesting to investigate the changes in distribution methods undertaken by Italian footwear companies in the international arena<sup>4</sup>.

The primary aim of this paper is to undertake exploratory research on the degree of internationalization of the players involved in footwear distribution. Following a summary of the theoretical framework of reference there follows an analysis of the different behaviours and strategies adopted by the two main players in the commercial distribution of footwear: vertically integrated manufacturers, and retailers in the strictest sense.

## Theoretical Framework

The international footwear sector has been characterized over the past 40 years by substantial changes concerning supply, demand and distribution (Gregori et al., 2009); as regards demand, the increasingly aware consumer implements varied behaviours in which the “experiential” purchase process has become increasingly important (Resciniti, 2005).

With regard to the competitive context, there has been an increase in international competition, with the birth of new enterprises in Eastern Europe and Southeast Asia; these companies, initially positioned at the lower-end of the market, have improved their production processes and now create higher quality footwears.

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<sup>3</sup> Such processes of internationalization in commercial distribution have primarily concerned non-food sectors (Dawson, 1994).

<sup>4</sup> In order to provide a complete overview of the phenomenon it is useful to note that such enterprises increasingly sell footwear in addition to other products; most often accessories, but also clothing, for example.

Finally, changes can also be observed among commercial operators, with the emergence of distribution chains, the implementation of forms of distributive partnership such as franchising, and the development of outlets<sup>5</sup>.

This is of interest, given that since 2000 leading clothing and leather goods brands have entered the footwear market; it has therefore been observed that the brand is an increasingly critical factor for success “thanks to the assimilation of the logic of luxury and fashion in footwear” (SDA Bocconi, 2007).

There has been a significant transformation in the commercial policy of many footwear companies, also in view of a process of change in clothing distribution channels. One initial aspect that can be highlighted concerns the “crisis” in traditional footwear retail that, due to its characteristics, does not seem to pursue effective sales strategies. This situation is reflected in large measure in the development strategies of some footwear SMEs that have this as their primary distribution channel.

Furthermore, it has been noted that many large and medium-sized companies have put integrated “downstream” distributive strategies into place, so as to distribute the product both at a “direct” store, by adopting partnerships with intermediaries, and through franchising. Increasing competition from major footwear and clothing companies can also be noted, which “deprives” companies with less significant brands of “space” in the stores; retailers usually have greater bargaining power with relation to the “small supplier”, that can be easily replaced, than with a company that boasts a more famous brand name.

It can be observed that many companies choose to open directly operated, often monobrand stores, with different goals: as an instrument of image promotion and market intelligence (flagship store - Sansone, 2005) and as a sales channel (sometimes the principle one); in this case a genuine stores chain is developed not only in capital cities, but also in medium sized and large urban centres (Pambianco, 2005).

These companies can encounter clear difficulties in developing effective business strategies; in this sense an interesting option for “shifting downstream” in the distribution chain can be represented by the opening of “traditional” outlets (a factory store or factory outlet) or factory outlet centres: this has been achieved, in some cases, even by small scale entrepreneurs, which mainly concentrate on the immediate vicinity of their company, or major metropolitan areas (Mattiacci e Ceccotti, 2005).

International distribution channels have also seen a prevailing tendency to create ever more direct sales organizations, and even when dealing with distributors (in countries such as Japan, China, Russia and others, where it is difficult to have a direct presence) or multifirm agents, companies want to see them well integrated into the system (Pambianco, 2005).

With regard to distribution companies that specialize in footwear and clothing, a certain concentration of distribution networks in established markets and the development of organized distribution in emerging markets can also be observed (SDA Bocconi, 2007). It

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<sup>5</sup> It should be noted that these changes have had a marked impact on small-sized enterprises, as they do not always have the necessary capacity and resources to cope with the new competitive environment (Ferrero and Fortezza, 2007).

should also be noted that some commercial operators have carried out processes of downward vertical integration and moved from intermediate distribution (wholesale) to the development of autonomous retail choices.

In domestic markets this creates a strong duality in the commercial distribution of footwear (which can also be extrapolated to other sectors such as clothing) in which branded companies and retailers compete by modifying the same strategic and marketing levers (Aiello, 2005). This duality is inevitably also reflected in foreign markets, in which both can produce forms of internationalization in distribution networks, as defined, in the words of Dawson (1994), “as the operation, by a firm or alliance, of shops, or other forms of retail distribution, in more than one country”.

The process of internationalization by opening stores abroad represents a growth strategy (Pellegrini, 1991) that companies can undertake for various motivations (Williams, 1992) and that, therefore, could involve a large number of actors working in commercial distribution. Despite this, the internationalization of the retail sector is not necessarily an appropriate strategy for all categories of business. According to Simpson and Thorpe (1995) there exist the prerequisites that the process of internationalization in commercial distribution needs to be profitable and represent a real source of competitive advantage for firms. The authors formalize these conditions in the PLIN model: Product (differentiation and uniqueness of the product), Lifestyle (compatibility with the lifestyle of consumers who identify with the enterprise and its products), Image (the image of the company and retail outlets) and Niche (a specific market position that allows the company to reach and fully satisfy specific niche market segments). If these prove to be the prerequisites for the successful outcome of an internationalization strategy, then, as a result of each of these four variables, industrial firms (and in particular the market leader) might enjoy a greater advantage from the opening of (inevitably monobrand) retail outlets abroad than retailers. The four variables are in fact all closely related to the product offered (as directly created and controlled by the industrial company) and the brand image of the industrial company that, more so in the non-food sector, is in most cases more prominent than the store image of the retailer.

These theoretical assumptions have led to the objective of undertaking not only an empirical analysis of the degree of internationalization of the sector of the commercial distribution footwear, but also a comparison between the two parties involved in this industry: verticalized manufacturers and commercial enterprises.

## Empirical Research Methodology

In order to achieve these research objectives, the choice was made to conduct an analysis of the leading 100 Italian companies operating in the footwear sector, including both producers and retailers. In particular the sample consists of 50 industrial companies (NACE code C 15.2 “Manufacture of footwear”) and 50 retail companies (NACE code G 47.7.2 “Retail sale of footwear and leather goods in specialised stores”), in order to render the two samples analyzed as similar as possible. The choice of sample was made by identifying the major companies in terms of turnover, for both groups, by means of research carried out based on the Aida database (Bureau Van Dijk).

With regard to the business information provided by this database, a selection process followed that ensured the elimination (and later replacement) of companies with the following characteristics:

- belonging to multinationals and foreign groups;
- a lack of readily available company information;
- incorrect attribution of sectorial code (for example, footwear wholesalers classified by the database as belonging to sector G 47.7.2, rather than G 46.1.6 “Agents involved in the sale of textiles, clothing, fur, footwear and leather goods”, have been deleted);
- the production of third party products (with specific reference to the category of manufacturing companies).

An in-depth phase of corporate information gathering made use of websites, business communications materials (updated for 2010-2011), and contacts with consultants and contractors who have long been involved in this area.

To meet the research objectives the data collected mainly focuses on investments relating to the opening of retail outlets abroad. In particular, for each company analyzed, the following information was reported:

- the number of stores in Italy;
- the foreign countries where the firms in question have stores;
- the number of stores in each foreign country.

It should be emphasized that only manufacturing companies with mono-brand stores have been considered, to keep simple export activities (specifically measured by sector data) separate from the creation of an international sales network (managed both directly and through franchising), which may represent a more advanced form of internationalization.

To ensure a consistent analysis of the results regarding retailers and manufacturers, the analysis will be presented separately for both groups.

## Empirical Research Results

### The degree of commercial internationalization of industrial enterprises in the footwear sector

The first part of the analysis carried out focuses on the analysis of the degree of commercial internationalization of industrial enterprises in the footwear sector, which, unlike in the case of retailers, may be achieved through simple exports (through sales to foreign retailers) or through more “advanced” forms of investment (direct management of a network of foreign stores, or indirect control by means of franchise contracts).

The exports of Italian footwear companies have seen a negative trend in their value over the last decade, thereby reducing the sector's contribution to total national exports (Tab. 1).



**Tab. 1 – Exports of the Italian footwear sector during the period 2000-2008**

Year	Export (€)	% on total export
2000	7.745.017.356	3,0%
2001	8.463.354.274	3,1%
2002	8.021.801.016	3,0%
2003	7.491.170.575	2,8%
2004	7.317.629.521	2,6%
2005	7.193.265.005	2,4%
2006	7.670.056.955	2,3%
2007	7.878.111.570	2,2%
2008	7.676.411.037	2,1%

Source: analysis of Coeweb (Istat) data

With reference to the destination countries of Italian footwear exports, Table 2 shows that France, for some years, has been the main market abroad, followed by Germany and the United States, which had historically been the countries of primary importance for sales in this sector. In general the most important foreign markets for the footwear industry are Western countries that, however, are beginning to be flanked by emerging markets, such as China and the UAE. In this sense it can be seen that this process of “mercantile internationalization” that has permeated the performance of many Italian companies has been led by a “medium range” international approach (using commercial networks based mainly in European countries and the U.S.); it should, however, be noted that the Italian economic system obtained results of high growth for over thirty years, while using an approach that might be described as “short term”.

Regarding the second aspect, the commercial internationalization of Italian footwear manufacturers, the following analysis will demonstrate the main research results as regards the presence of Italian and foreign mono-brand stores.

The first result to highlight is that, of the 50 firms in the sample, 22 (44%) do not appear to have flagship stores either in Italy or abroad. These companies do not appear, therefore, to pursue a strategy of downstream vertical integration with the aim of the monitoring the retail market (with fast access to less biased information, which is important for the reduction of time to market) and control of the levers of distribution (localization of the retail outlet, management of promotional policies, in-store communication, etc.).

As regards the remaining 28 manufacturing companies considered, however, they have undertaken a process of creating (on their own, or through franchise contracts) sales networks composed of mono-brand stores which are to stand alongside, or, in some cases, replace commercial distribution through retailers<sup>6</sup>.

An overview of the empirical evidence studied for these 28 companies follows.

The analysis in Table 3 was carried out by dividing the companies by size into four groups (in relation to turnover data for the last available year<sup>7</sup>), and the quantity and average number of total, Italian and foreign stores has been highlighted for each.

<sup>6</sup> In this regard see the case of Tod's in international markets and NeroGiradini (Bag Spa) in the Italian domestic market.

<sup>7</sup> In most cases the data refers to the year 2009, and in only a small proportion cases 2008 or 2010.

**Tab. 2 – Exports of the footwear industry for the 20 major destination countries, in the period 2000-2010 (in millions of Euro)**

Countries	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
France	782,8	827,6	898,0	902,7	896,7	902,2	938,4	1.006,0	998,7	937,4	1.068,5
Germany	1.295,2	1.381,5	1.151,7	1.066,2	981,1	958,6	950,9	987,1	892,5	752,2	861,9
USA	1.352,9	1.397,6	1.201,6	1.021,3	1.052,1	890,8	849,8	810,9	673,6	493,6	615,7
Switzerland	321,7	405,3	332,8	339,1	377,8	359,2	386,4	418,3	475,1	416,8	453,6
Russia	228,1	285,0	287,4	274,8	286,3	321,3	422,7	522,5	598,6	379,5	431,1
United Kingdom	608,1	608,0	635,2	572,9	517,7	465,4	449,7	492,5	410,2	353,2	415,2
Spain	128,2	144,2	158,8	178,1	197,5	221,0	276,2	313,3	329,2	271,4	298,0
Belgium	216,1	240,5	241,9	214,0	222,4	236,9	260,6	276,3	262,4	244,4	273,4
Netherlands	269,1	295,8	262,1	257,8	253,5	259,1	275,0	294,9	286,2	239,7	259,5
Austria	199,8	207,7	194,5	191,2	195,0	188,6	209,5	204,5	196,7	161,8	182,9
Japan	231,1	261,6	237,4	217,3	209,3	211,4	215,1	196,8	167,4	153,8	161,1
Greece	126,7	123,5	128,6	117,0	116,8	125,7	150,0	158,7	185,1	165,9	152,6
Hong Kong	101,9	111,4	95,8	76,6	74,4	80,9	79,8	95,8	105,6	91,7	128,1
Poland	81,3	95,4	104,5	92,9	53,0	47,0	61,4	74,8	87,5	65,8	81,4
Ukraine	42,8	50,7	59,5	60,9	57,8	62,0	84,3	104,6	114,6	58,8	65,8
Canada	133,1	145,0	135,4	108,6	96,8	91,1	91,0	85,5	80,0	54,4	63,3
United Arab Emirates	39,4	47,5	42,0	42,7	36,4	40,8	45,6	62,3	73,8	61,9	60,8
Czech Republic	49,9	59,9	56,8	51,3	45,6	50,5	56,0	59,7	63,7	46,8	59,1
Portugal	60,1	59,6	57,8	44,6	44,8	42,9	48,0	57,1	61,7	47,9	58,0
China	6,2	8,9	8,2	11,1	15,5	21,6	2,1	2,8	2,0	36,5	57,8

Source: analysis of Coeweb (Istat) data for the period 2000-2008; ANCI analysis of Istat data for the period 2009-2010.

**Tab. 3 – The total number, average and percentage of Italian and foreign stores of the industrial companies analyzed, by size.**

Class of turnover	Companies	Total stores		Italian stores			Foreign stores		
	N°	N°	Average	N°	Average	%	N°	Average	%
> 100 million €	6	850	142	191	32	22,5%	659	110	77,5%
50 - 100 million €	10	834	83	302	30	36,2%	532	53	63,8%
30 - 50 million €	8	176	22	94	12	53,4%	82	10	46,6%
< 30 million €	4	45	11	16	4	35,6%	29	7	64,4%
Total	28	1905	68	603	22	31,7%	1.302	46,5	68,3%

By analyzing the values for the entire group it is evident that industrial companies that have undertaken a strategy of approaching the retail market through the opening of stores have done this in a significant manner, with an average total of 70 shops. Moreover, foreign market penetration is not negligible, since the majority (almost 70%) of these stores are located outside national borders.

In observing the data broken down by class of turnover, furthermore, it emerges that the total number of stores (analyzed on average to render the comparison homogeneous) appears to decrease with decreasing company size. This result seems consistent with the economic and managerial literature, that, both in the specific case of the commercial

distribution sector (Quinn et al., 2009), and applied to all sectors of the economy (Buckley, 1989; Acs et al., 1997; O'Farrell and Hitchens, 1998), affirms that small and medium enterprises face higher barriers to internationalization strategies (for lack of financial and economic resources, lack of skills, and a reluctance to delegate that, especially in SMEs run on the family model, represents an obstacle to growth etc.).

**Tab. 4 – Percentage of firms in the sample by number of foreign countries penetrated, by size.**

Class of turnover	Number of foreign countries penetrated					
	0	1_5	6_10	11_20	21-30	>30
> 100 million €	50,0%			16,7%		33,3%
50 - 100 million €	10,0%	10,0%	20,0%	40,0%	10,0%	10,0%
30 - 50 million €	25,0%	50,0%	12,5%	12,5%		
< 30 million €		75,0%		25,0%		

Despite the larger class size having a higher average number of retail outlets abroad, there is a high degree of variability within this group, with 50% of companies not internationalized in this sense.

Even in the other groups the situation is quite varied, however showing a greater concentration towards a lower number of countries penetrated that decreases with class size. While smaller companies may somehow overcome the obstacles to internationalization, it is evident that scarce financial and economic resources (in addition to reduced access to credit) may limit the extent of foreign investment (number of shops), while having fewer human resources and skills can lead to a reduction in foreign countries entered (limiting the learning processes involved in operating in new markets).

Finally, Table 5 shows the number of shops in the top 20 countries where the companies under analysis have invested in distribution networks. This ranking was also placed alongside that outlined in Table 2, relating to export activity, in order to facilitate a comparison between the two strategies of internationalization.

This analysis (those countries which are in a better position in the ranking due to the presence of retail outlets, rather than exports, are highlighted in grey) allows for a reflection on the possibility of different strategies being put into place for the overseeing of different countries and markets. For countries that were entered some time ago (typically Western countries that are culturally and geographically closer to Italy), market entry appears to be mainly export based, and therefore involves the use of foreign retailers to market products, despite, however, there being no lack of mono-brand points of sale. It should be noted, however, that there is a greater propensity for the development of a sales network, be it directly controlled or made through agreements such as franchising, in countries of more recent penetration (China, Japan, Russia, UAE, Saudi Arabia), in which a direct presence with flagship stores can enhance the spread of brand awareness and accelerate the process of market consolidation. It should however be noted that in some cases decisions made regarding internationalization through the opening of stores, and not merely through exports, can also be due to the institutional barriers and regulations that some countries apply to imports (such as in China).

**Tab. 5 – Ranking of foreign countries by value of exports in 2010 and by number of stores.**

Ranking	Export	Presence of stores	Number of stores	Ranking stores / ranking export
1	France	China	234	+
2	Germany	Japan	154	+
3	United States	Russia	127	+
4	Switzerland	United States	122	-
5	Russia	South Korea	70	+
6	United Kingdom	Taiwan	40	+
7	Spain	France	39	-
8	Belgium	United Arab Emirates	35	+
9	Netherlands	Germany	33	-
10	Austria	Spain	31	-
11	Japan	Mexico	28	+
12	Greece	Hong Kong	23	+
13	Hong Kong	United Kingdom	18	-
14	Poland	Switzerland	18	-
15	Ukraine	Australia	17	+
16	Canada	Singapore	17	+
17	United Arab Emirates	Poland	16	-
18	Czech Republic	Saudi Arabia	12	+
19	Portugal	Philippines	12	+
20	China	Ukraine	12	-

### The degree of internationalization of retailers in the footwear sector

To better understand the degree of internationalization of Italian footwear retailers, the analysis carried out in the previous section, concerning the total and average numbers of retail outlets, is studied again (tab. 6), with a subsequent breakdown into Italian and foreign stores.

**Tab. 6 – Total number, average and percentage of the total Italian and foreign stores of the companies analysed, in terms of size.**

Class of turnover	Companies	Total stores		Italian stores			Foreign stores		
	N°	N°	Average	N°	Average	%	N°	Average	%
> 100 million €	5	301	60	280	56	93,0%	21	4	7,0%
50 - 100 million €	9	336	37	322	36	95,8%	14	2	4,2%
30 - 50 million €	11	94	9	83	8	88,3%	11	1	11,7%
< 30 million €	25	108	4	108	4	100,0%	0	0	0,0%
Total	50	839	17	793	16	94,5%	46	0,92	5,5%

Contrary to what has been observed regarding single-brand retail outlets of industrial enterprises, retailers operating in the distribution of footwear do not have a large number of either Italian or foreign retail outlets. Indeed, each firm under analysis has 17 retail stores on average, of which 16 are in Italy and approximately one abroad. Also in this case the degree of internationalization and, in general, the total number of shops, appears to be directly proportional to the size of the company.

Firstly, therefore, the smaller size of the largest footwear retailers when compared with major industrial concerns in the sector can be an obstacle, both in terms of the extent of the total sales network and the specific case of foreign countries that, as noted, require greater organizational, economic and cognitive efforts that can act as barriers, especially for smaller firms.

In addition, the inferior image of the point of sale, when compared with the brand image enjoyed by large industrial companies, can be difficult to compensate for in the Italian market, and, inevitably, amplified by a lack of knowledge of the market and culture, while the growing risk of investing in foreign markets, represents a second hypothetical obstacle to internationalization.

## Conclusions

The profound changes that have affected the distribution of footwear, both in Italy and abroad, have affected the various players in the market to various extents. This paper has aimed to examine, in an exploratory fashion, the behaviour of retailers and manufacturing companies, with regard to the choices involved in commercial internationalization, and, in particular, to analyze the investments involved in the opening of mono-brand stores. Different aspects of interest emerge from the results obtained, regarding the evolutionary path that the distribution of footwear products has followed.

The first finding of the research appears to confirm what has already been observed in other sectors, namely that the Italian process of internationalization of distribution appears to be more passive than active; indeed, only a limited number of Italian specialized retailers have a presence in foreign markets with direct stores. Added to this is the fact that distribution companies appear to be of smaller average size than their competitors in other countries in 50 cases.

The position of industrial firms is different, as more than 50% (28 companies) have developed a process of downstream vertical integration through the use of flagship stores, both in Italy and abroad. Overall, these 28 footwear-manufacturing companies have over 1300 active stores abroad, and about 600 in Italy. It should be noted that the number of stores outside Italy appears to be influenced by the size of the enterprise, along with positioning decisions taken by the firm.

A further important result of the analysis is that countries that have traditionally been the recipients of Italian exports (France, Germany, United States) do not appear to be the same countries that larger companies are now focusing their direct commercial investment efforts on (China, Japan, Russia): in this regard a different approach towards distribution choices is evident.

It should be noted that for the purposes of this present study only larger firms were considered, and therefore this does not allow for an extrapolation of the results. It may also be highlighted that, in order to understand the phenomenon more fully, it would also be appropriate to understand, through the use of different methods of analysis, the characteristics of these players in terms of positioning.

The prospects for future research may therefore be focused on both the expansion of the basis of the analysis, and further empirical research, which would allow for an extension

of the parameters of the analysis. It would also be interesting to verify the same parameters in other fashion contexts.

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## Antecedents of online professional services' perceived usefulness: An empirical research

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### Abstract

*The present study explores the factors that determine doctors' perceptions of the usefulness of online professional services and the latter's influence on their purchase intention. The study's conceptualization is based on the Technology Acceptance Model and the incorporation of professionals' individual differences as well as the nature of the online service. On this basis, a theoretical framework is developed and empirically tested using data collected from 100 physicians through personal interviewing. During the interviews each of the physicians was asked to provide information on the study's variables for two different types of innovative online services (commercial or educational). The results indicate that perceived usefulness is positively related to four major variables: perceived ease of use, social influences, individual differences (as described by the physician's level of education, work status and self-efficacy) and the nature of the service. Finally, in agreement with former studies, the relationship between perceived usefulness and physicians' purchase intention was also found positive and significant. Based on the study's results, important implications for managers and suggestions for further academic research are presented.*

*Keywords: Professional services, perceived usefulness, individual differences*

### Introduction

Predicting the adoption rate of an innovative service is a very important issue, especially for companies that sell online services. An adequate prediction of the adoption rate can help service providers determine their marketing strategy in order to successfully enter a new market or prevent future competition. During the past three decades, academics have attempted to discover the specific variables that determine the potential buyers' behavioural intentions for innovative products and services (Chapman et al, 2003; Kandampully and Duddy, 1999). Most of the ongoing research is based on the Technology Acceptance Model (TAM), a theoretical model that was firstly introduced by Davis (1989) and since then has received great attention from both academics and practitioners. On the basis of the TAM theory a growing number of researchers from the fields of marketing and information systems have explored a wide variety of innovation adoption predictors in different contexts and for different types of potential users (e.g. Jeyaraj, Rottman and Lacity, 2006; Venkatesh and Davis, 2000; Gefen and Straub, 1997; Kimberly and Evanisko, 1981).

Most of these studies agree that one of the most important factors of influence on purchase intentions is the perceived usefulness of the service (e.g. Venkatesh and Davis, 2000). Many studies also indicate several determinants of perceived usefulness, some of

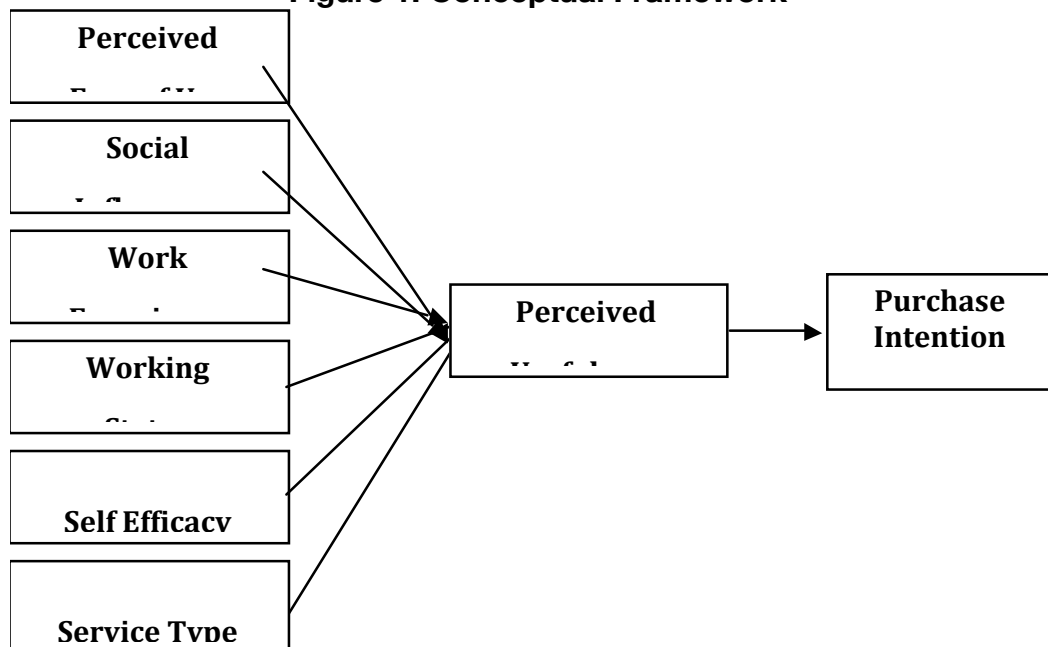
them deriving from the TAM theory and others from the general consumer behaviour theory (Petre et al, 2006). Some of these studies have explored the case of doctors as professional users and reported several differences for this specific context (Mitchell et al, 1996; Venkatesh and Davis, 2000; Chau and Hu, 2002; Yi et al, 2006).

However, to our knowledge, there is no study exploring simultaneously the influence of technology acceptance variables and professional differences on perceived usefulness. Moreover, there is no study that considers the nature of the service as an additional determinant of the aforementioned variable. On this basis, the present study attempts to make a contribution by developing and testing a theoretical framework that integrates variables deriving from TAM, specific physicians' professional characteristics and the type of service as antecedents of a professional service's perceived usefulness and its impact on professionals' purchase intention. As shown in Figure 1, in our conceptual framework we have included six potential predictors of perceived usefulness:

- a) perceived ease of use
- b) social influences as determined by the perceived increase of their professional image
- c) work experience
- d) work status
- e) self efficacy and
- f) the type of service (commercial, educational).

The relationship between perceived usefulness and purchase intention is also included in the framework.

**Figure 1: Conceptual Framework**



## Literature Review

### Antecedents of Perceived Usefulness

#### Perceive Ease of Use

According to the literature regarding the Technology Acceptance Model (TAM) perceived usefulness refers to “the degree to which a person believes that using a particular system would enhance his or her job performance”, whereas perceived ease of use is defined as “the degree to which a person believes that using a particular system would be free of effort” (Davis, 1989, pp. 320). These two concepts are highly related in the pertinent literature (Davis et al, 1989). Most of the research on this subject, considers these two variables as important determinants of consumer’s purchase intention (Davis, 1989; Hu et al, 1999). However, the results of many studies also indicate a direct influence of perceived ease of use on perceived usefulness (Venkatesh, and Davis, 2000; Igbaria et al, 1997). According to these studies, when a consumer finds the use of an innovative product or service ease, perceives more value from the potential purchase and hence he/she thinks that the product/service is more useful for him/her. This argument can be better applied to an on-line shopping context where the ease of use is very important, particularly for professionals (Lederer et al, 2000; Vijayasathy 2004). On the basis of the above discussion it is reasonable to assume that in the case of physicians’ online services’ purchase:

H1: Perceived ease of use positively influences doctors’ perceptions of innovative on-line services’ usefulness.

#### Social Influences

Previous research has explored the impact of social influences, such as perceived increase of professional image, on physicians’ purchase intention for an innovative service and found it insignificant (Chen et al, 1998, Chau and Hu, 2002). According to Chau and Hu, this relationship was not found significant because a physician is rarely influenced by other people’s opinion as he/she usually develops easily a professional opinion of his/her own. Other researchers however have posed the opinion that although a doctor’s purchase intention may not increase, a perceived improvement of his/her professional image will increase his/her perceptions for the service’s usefulness (Mitchell et al, 1996). A doctor may not make purchase decisions based on other people’s opinion, but his/her perceptions on the service could be influenced. For that reason, we think it is important to formulate the following research hypothesis:

H2: Perceived improvement of a doctor’s professional image positively influences his/her perceptions of innovative on-line services’ usefulness.

#### Professional Characteristics

According to the pertinent literature, doctors behave differently than other business managers when purchasing products and services regarding their profession and especially innovative ones (Chau & Hu, 2002). Due to the special nature of their profession, their perception of an online service’s usefulness depends on their individual professional characteristics. For example, although doctors are highly educated and very

capable in learning new things (Mitchell et al, 1996), they usually are also very confident on their knowledge and skills and hence very reluctant in adapting new ways of working (Anderson & Aydin, 1997). This implies that their perception of usefulness is significantly influenced by both their work experience and their self efficacy (Mitchell et al, 1996). Specifically, more experienced and more confident doctors will seek to use innovative services and as an outcome they will have a better understanding on their usefulness. Also, such doctors are more likely to have already adopt other innovative services in the past and hence better appreciate innovative services' usefulness in general.

Moreover, physicians are professionals that have great autonomy both in their work and in any purchase regarding their profession (Chau & Hu, 2002). These characteristics become more intense as doctors' working status improves. Hence, given that autonomy in purchase decisions has been found to be an important determinant of perceived usefulness (Hu et al, 1999), doctors with a more upgraded working status will evaluate more positively the usefulness of an innovative service.

All the above discussion leads us to formulate the following research hypotheses:

H3: Doctors' working experience positively influences their perceptions of innovative on-line services' usefulness.

H4: Doctors' working status influences positively their perceptions of innovative on-line services' usefulness.

H5: Doctors' degree of self efficacy positively influences their perceptions of innovative on-line services' usefulness.

## Service Type

According to the consumer behavior literature, consumers' motives and criteria are completely different when they purchase educational services (DiDomenico and Bonnici, 1996). For instance, previous research has shown that high levels of familiarity with the context lead to greater purchase involvement (Zaichkowsky, 1985), especially in the online environment (Rodgers et al., 2005). In the case of physicians' online purchases, it is reasonable to assume that doctors are more involved when buying training and educational services than commercial services. This means that when purchasing educational services they will consume more time and effort in order to evaluate and have a better understanding on their usefulness. Also, previous research has shown that in such specialized professions the utility from commercial products and services is very low, so it is reasonable to assume that it will be lower than from educational services. Hence we post that:

H6: Doctors' perceived usefulness will be greater for educational services than for commercial.

## Perceived Usefulness' Influence on Purchase Intention

Since the Technology Acceptance Model (TAM) was firstly introduced to the literature, perceived usefulness was indicated as one of the most important antecedents of consumers' purchase intention (e.g. Davis, 1989; Davis et al, 1989; Igarria et al, 1997). As noted, consumers that find a greater level of utility from buying an innovative product or

service will be more willing to adopt this innovation and purchase the specific product/service (Jackson et al, 1997). The positive relationship between perceived usefulness and purchase intention has been tested and confirmed in many contexts and for many services, including online services and professional services for physicians (Mitchell et al, 1996; Chau & Hu, 2002; Yi et al, 2006; Jeyaraj et al, 2006). In the present study we seek to confirm the aforementioned influence in the case of online professional services. Hence we formulate the following research hypothesis:

H7: Doctors' perceived usefulness of innovative on-line services positively influences their purchase intentions.

## Methodology

### Sampling and Data Collection

In order to empirically test our research hypotheses we conducted a field research, approaching physicians at their working environment. In total, we conducted 252 doctors, of whom 100 agreed to participate in our research, deriving hence a response rate of 39.6%, which we consider very high given the special nature of our sample unit. All doctors completed a structured questionnaire in presence of a fellow researcher. Regarding the demographic characteristics of our sample 66% of the respondents were males and 34% females. The sex proportion of the sample is similar to the proportion in the population of doctors in Greece, enhancing thus the representativeness of the sample. The average age was 41, while the average working experience was 12.4 years.

### Operationalization of Variables

Regarding the instruments used to capture the constructs we included in our conceptual framework, where possible, we used formerly tested scales. In order to measure perceived usefulness, ease of use and social influences (professional image) we used scales developed and empirically validated by Davis (1989), using Likert type items with anchors 1-7. The possibility of purchasing the proposed online services also addressed through a single item scale which asked "How possible do you consider it to use the described service in the next 12 months". All questions were addressed to the respondents separately for each service (educational, commercial) and hence the type of service was expressed with a dichotomous variable. The responses for the two groups of questions are described as nested within the subject (respondent), deriving a total of 200 responses for each variables.

Physicians' professional experience was measured objectively by the years of the doctors' employment, whereas working status describes whether a doctor is currently employed in the public or the private sector. Finally, the doctors self efficacy was measured directly, using a single item scale. Specifically, the question was: "How effective do you believe you are when you do your job?" with anchors 1-7.

Confirmatory factor analysis (CFA) was employed (Table 1) in order to examine the unidimensionality and the discriminant as well as the convergent validity of the three multi-item scales we used. As can be seen from Table 1, the measures were indeed proven to be unidimensional and valid in terms of discriminant and convergent validity. All measures were also examined for internal consistency as reflected by construct reliability, which was assessed through Cronbach  $\alpha$ .

**Table 1: Confirmatory Factor Analysis, Reliability, Validity**

Constructs	CFI	TLI	RMSEA	AVE	Crobach a
Perceived Usefulness	0.931	0.922	0.088	0.64	0.78
Perceives Ease of Use	0.946	0.933	0.070	0.59	0.85
Perceived Professional Image	0.912	0.905	0.080	0.63	0.88

## Analysis and Results

To check the validity of our research hypotheses, we constructed a hypothesized model and followed a confirmatory approach, checking the significance of all causal relationships within it. For this purpose the most appropriate analysis is Structural Equation Modelling (SEM). Due to sample size limitations the analysis was carried out only for the path model. The results are shown in Table 2.

The results of the Goodness-of fit test of the hypothesized model show an excellent fit of the hypothesized model to our data as indicated by the values of the most common used fit indices: a CFI of 0.929, a TLI of 0.912 and RMSEA of 0.078. According to the results of the significance tests for the coefficients of the path model five from the six hypothesized variables are found to positively and significantly influence perceived usefulness and specifically: perceived ease of use, professional image, work experience, self efficacy and the type of service. On the contrary, the influence of working status on perceived usefulness was not found to be significant. Finally, the relationship between perceived usefulness and purchase intention was found positive and significant as hypothesized.

**Table 2: Fit Indices and Path Coefficients**

CFI	TLI	RMSEA			
0.929	0.912	0.078			
Path Model			Standardized Beta	T	Sig.
Perceived Ease of Use → Perceived Usefulness			0.334	2.428	< 0.05
Professional Image → Perceived Usefulness			0.319	2.297	< 0.05
Work Experience → Perceived Usefulness			0.268	2.198	< 0.05
Working Status → Perceived Usefulness			0.087	0.544	>0.05
Self Efficacy → Perceived Usefulness			0.458	3.152	< 0.05
Type of Service → Perceived Usefulness			0.283	2.237	> 0.05
Perceived Usefulness → Purchase Intention			0.322	2.341	< 0.05

## Conclusions and Managerial Implications

Our study's results lead to important conclusions that may be useful both for academic research and marketing managers. The main contribution of the study is that it offers an adequate list of the factors that influence doctors' perceptions of an online service's usefulness. One of the factors refers to the service's ease of use supporting the results of former research (e.g. Venkatesh, and Davis, 2000). This practically means that service providers should invest time and money in order to develop online services, both

educational and commercial, that are user friendly as this will lead to better results in terms of their services' image.

Moreover, perceived usefulness is positively influenced by social factors such as the increase on the doctors' professional image. Hence, other people's perceptions on a doctor's professional image tend to positively affect the perception that the doctor has on the usefulness of the service. That means that doctors are expected to adopt innovative on-line services in order to enforce their image when their customers consider them to be prestigious. The specific profession has always been highly prestigious and as such all elements enforcing a doctor's image is considered to be of major importance. Hence, innovative on-line services, which constitute by default an indication of positive image, tend to be better evaluated by doctors that are considered to have a high standard professional image. So, managers can underline the prestigious aspects of a potential adoption of innovative on-line services when addressing their promotion to doctors.

Two other important factors that influence perceived usefulness are the doctors' work experience and self efficacy. As proven, more experienced and confident doctors are more likely to perceive higher levels of usefulness as they can really appreciate the added value offered by an innovative online service. This conclusion can help marketing managers with their segmentation and targeting strategy as well as their promotional activities towards less experienced doctors. On the other hand, doctors' working status seems to have no significant effect on their perception of the service's usefulness. This may occur due to the fact that doctors regardless their working status, are highly educated and skilled professionals and have great levels of involvement with a professional purchase. This is something that managers should have in mind when designing the promotional activities of products and services addressed to doctors in order to avoid following wrong directions.

Finally, an important conclusion of the study lies on the confirmation of the positive influence that perceived usefulness has on a physician's purchase intention for online professional services. This conclusion proves that the TAM model can actually find applications in professional purchases / contexts as well. This means that marketers can put their efforts towards emphasizing the perceived usefulness of these products when promoting innovative products and services to professionals like doctors. The results of our study provide a useful guide on how perceived usefulness can be upgraded which in turn will increase the possibility of the products/services' adoption by doctors.

## Limitations and Suggestions for Further Research

Although it offers useful conclusions for academics and practitioners, our study is tempered by several limitations. First, this study uses only one example of each type of service (online training and e-detailing). Future research should use more examples for each type of service in order to ensure the accuracy of our finding. Moreover, our study was conducted in a single national and cultural context. Any further research on the subject must take into account this limitation and validate our findings in other cultural environments. The third limitation lies in the sample size of our study. Although the sample size of 100 subjects (200 observations in total) is acceptable for the analyses used it can be viewed as relatively small.

Moreover, future research could investigate more factors that determine perceived usefulness, such as prior experience with innovative services and also integrate perceived

usefulness within an integrated framework that also includes the service provider's marketing communications' activities. Finally, several moderating variables could be added to the relationships between perceived usefulness and its antecedents, such as the price of the service, the familiarity of physicians with online services and products e.t.c.

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## Keeping Experts Focussed - The biggest management challenge

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### Abstract

*What are the crucial challenges in managing experts?*

*Some researchers state that the measurement of experts' productivity is to be regarded as the biggest challenge. Others claim that an expert's autonomy with respect to organisational goals and regulations poses specific challenges to her/his management. A third group of researchers perceive the contribution to and the usage of collectively shared knowledge as the biggest challenge. This question, however, has never been empirically explored from a cross-industrial point of view.*

*The paper here presented closes this research gap by examining, in five expert organisations from different business sectors, which topics line managers and experts regard as specific challenges in managing expert work.*

*The study demonstrates that from an expert's perspective, the biggest challenge consists in managing her/his own work, e.g. parallel streams, multiple-task switchings as well as heterogeneous stakeholder requirements. This is commonly regarded as a challenge which, so far, cannot be solved on the organisational, but only on an individual level.*

*The study also reveals that management inadvertently represents one of the sources of this challenge. The findings call for solutions with a view to minimising said challenges on an organisational level.*

*Key words: knowledge worker, expert, management, challenge*

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### Introduction

'The proper management of professional employees is among the most difficult problems facing the business enterprise' (Drucker 2006, p.337).

One of the great achievements of Peter F. Drucker, who is called the 'man who invented management', is said to be his ability to anticipate key management challenges decades in advance (Byrne & Gerdes, 2005). He defined the management of knowledge workers as the biggest 'management challenge of the 21<sup>st</sup> century' (Drucker 1999a; Drucker 1999b; Drucker 2006).

Irrespective of the designation for that new type of knowledge-worker workforce, nearly all surveys of past decades point to a fundamental structural change in the labour markets of the OECD countries:

- There has been, from 1985 onwards, a 10 percentage-points increase in the so-called 'derivative services', e.g. consulting, coaching, teaching, researching, developing and

management work (Weidig et al.1999; Dostal & Reinberg 1999; Dostal 2001; Reinberg & Hummel 2002).

- The number of occupations in the categories 'manager', 'professional' and 'associate professional' or 'technical occupation' has increased by 10 percentage points over the last two decades (UK National Statistics 2000; Baldwin & Beckstead 2003; Beckstead & Gellatly 2004; UK National Statistics 2006; Davenport 2005; US Department of Labor 2006; Brinkley 2006).
- The demand for employees with an academic education increased by 190 percentage points between 1975 and 2004, whereas the demand for employees with a lower educational background is continually decreasing (Weidig et al. 1999; Kleinert et al. 2000; Dostal 2001; Reinberg & Hummel 2002; Reinberg & Hummel 2005; OECD 2006a; OECD 2006b).
- Levy & Murnane (2006) noted a disproportional increase in the demand for two skill requirements within the US labour force between 1979 and 1999: 'expert thinking' and 'complex communication'. In contrast to this development, they observed that the demand for manual and routine cognitive skills has been continually decreasing within the same time frame.

These employees who are engaged in derivative services such as consulting, coaching, teaching, researching and developing, i.e. in services requiring the non-routine application of specialised knowledge to individual cases, shall be termed 'experts' hereafter. They are to be regarded as a specific type of knowledge workers (Davenport 2005) and comprise the traditional professions, e.g. physician and lecturer, as well as new ones, e.g. management consultant and software developer (Mieg 2000; Mieg 2001).

There has been abundant discussion on the question of the challenges involved in experts' management as well as on the strategies employed in order to render experts productive.

This paper aims at pointing out three findings:

1. There are three basic streams of research focusing on three different key challenges involved in managing experts. All three streams of research are, however, lacking in empirical evidence.
2. In the empirical and cross-industrial research undertaken for the purpose of this study, it has been found out that managing their own tasks is seen as the crucial challenge by all experts in all investigated branches of industry. The perspective of their managers, on the other hand, is not commensurate with aforementioned experts' perspective. This lead to the finding that managers regularly and unconsciously enforce the multitasking and task-switching working mode of their expert associates. Based on this perception, this study regards management as part of experts' productivity loss problem, not as its solution.
3. In order to solve the multitasking and task-switching problem in expert work, three different solutions on three different organisational levels could be implemented. These solutions were the result of the empirical research undertaken by the author and have been partially tested in management practice.

The paper starts with a brief literature review on the subject of the challenges commonly associated with managing experts, professionals and knowledge workers (chapter 2). The presented concepts are being reviewed and, as a consequence, an alternative research design is being proposed (chapter 3). Chapter 4 exhibits the major outcomes of the empirical research undertaken by this study from a cross-industrial point of view. Finally, possible solutions for handling above-mentioned challenges will be presented (chapter 5).

## Literature review

This study refers to existent literature investigating the specific characteristics of experts, professionals and knowledge workers - concepts which overlap with the concept of expert suggested here. Dependent on how the specific characteristics of professionals and knowledge workers are defined, researchers have focused on differing challenges involved in managing them. In summary, three different streams of research on the three challenges involved in managing professionals and knowledge workers can be identified:

1. the challenge of defining and measuring expert productivity
2. the challenge of motivating professionals for organisational goals, tasks and standards
3. the challenge of disseminating and using knowledge within an organisation

Said three challenges will be briefly presented, explained and reviewed in the chapters to come.

## The challenge of defining and measuring expert productivity

From the point of view of cognitive psychology, an expert's specific characteristic consists in his or her ability to solve domain-specific problems faster, more effectively and more accurately in comparison to 'novices' in their respective fields (Posner 1988; Ericsson & Smith 1991; Gruber & Ziegler 1996; Ericsson 2006; Chi 2006). While cognitive psychology examines the structure and the methods of experts' outstanding domain-specific capabilities in a laboratory context, the question arises again when expert work is embedded in an organisational context.

In a business context, therefore, one crucial challenge identified is how the 'productivity' of experts can be defined and measured. This question was first posed by Peter F. Drucker regarding knowledge workers (Drucker 1999a; Drucker 1999b; Drucker 2006) and has, since, led to a stream of research on the definition and measuring of knowledge worker productivity.

Researchers, in this tradition, tried to define knowledge worker productivity in terms of a relation between the output and the input of work (Sink 1985; Thomas & Baron 1994). Unlike traditional productivity metrics, they also used qualitative parameters such as time invested in value-adding tasks in relation to total working time (Ray & Sahu 1989; Clark & Wheelwright 1993; Picard 1998) or earned values in relation to total working costs (Davis 1991; Merrifield 1994; Klassen, Russell & Chrisman 1998). Neither approach, however, answers the question of what exactly value-adding tasks in expert work are and how they can be determined.

This, in turn, provoked approaches such as the Function Point Analysis in software development, which tries to determine value-adding tasks with respect to realised functions (Garmus & Herron, 2000) or the Decision Making Units Approach which defines

a relative productivity index according to output and input variables for each decision in the same organisational context (Charnes, Cooper & Rhodes 1978; Charnes et al. 1994; Paradi, Smith & Schaffnit-Chatterfee 2002).

Said metrics may be valid for and applicable to routine knowledge work, as Ray & Sahu (1989) and Ramirez & Nembhard (2004) showed. For non-routine expert work which generally deals with individual cases or projects there is still no commonly accepted approach for the definition and measurement of expert productivity (Ray & Sahu 1989; Davis 1991; Drucker 1999a; Ramirez & Nemhard 2004; North & Gldenbergs 2008; Bosch-Sijtsema, Ruohomki & Vartiainen 2009; North 2010).

The challenge of defining and measuring expert productivity, therefore, remains. This affects basic management principles since it is still commonly accepted that 'If you can't measure it, you can't manage it' (Kaplan & Norton, 1996, p.21).

### The challenge of motivating professionals for organisational goals, tasks and standards

Other scholars view the specific characteristics of experts from a sociological perspective. They perceive an expert's competence in interpreting and solving a certain set of problems within a specific domain as her/his distinctive characteristic and label them, in this perspective, as 'professionals' (Abbott 1988; Hitzler 1994; Mieg 1994; Hitzler 1998; Mieg 2001; Pfadenhauer 2003; Evetts, Mieg & Felt 2006).

The attribution and embodiment of competence in a specific domain postulates a certain degree of autonomy for the expert at work, which is 'the very soul of professionalism' (Freidson, 2001, p.217).

Adopting this perspective, the crucial challenge in managing highly autonomous professionals is how to motivate them for organisational goals, tasks and standards. This question has been raised by organisational sociology and organisational psychology with respect to conflicts between professionals and organisations (Gouldner 1957; Kornhauser 1962; Montagna 1968; Sorenson & Sorenson 1974; Kerr, Von Glinow & Schriersheim 1977; Bailyn 1988; Raelin 1991; Grossmann, Pellert & Gotwald 1997; Schimanek 2005; Kogan & Teichler 2007) and is equally relevant from the business perspective regarding the management of knowledge workers (Alvesson 1995; Tampoe 1993; Drucker 1999a; Drucker 1999b; Scarborough 1999; Kubo & Saka 2002; Newell et al. 2002; Darr 2003; Alvesson 2004; Davenport 2005; Benson & Brown 2007; North & Gueldenberg 2008).

With regard to this point of view, one can distinguish three different modes of autonomy:

1. Autonomy regarding whether and to which extent an expert makes knowledge-intensive contributions to the business of an organisation, often also called organisational commitment (Meyer & Allen 1997; Dick 2004). In this respect, professionals and knowledge workers are often rather seen as investors than as employees in their respective organisation (Ulrich 1998; Drucker 1999a; Drucker 1999b; Kelloway & Barling 2000)
2. Autonomy in determining the goals and priorities of an expert's work, which has also been termed 'strategic autonomy' (Forsyth & Danisiewicz 1985; Bailyn 1988; Ulich 2005)
3. Autonomy in determining the methods, resources and organisation in the realisation of given goals and priorities, also called 'operative autonomy' (Bailyn 1988; Ulich 2005).

According to these three modes of autonomy, researchers have investigated and developed propositions on

1. how to attract and retain professionals and knowledge workers within an organisation (Tampoe 1983; Kubo & Saka 2002; Thompson & Heron 2005; Nelson & McCann 2010)
2. how to motivate professionals and knowledge workers for the goals and priorities of an organisation (Bailyn 1988; Raelin 1991; Tampoe 1993; Grossmann, Pellert & Gotwald 1997; Kubo & Saka 2002; Darr 2003; Davenport 2005; Benson & Brown 2007).
3. how to motivate professionals and knowledge workers for work standards ensuring quality and efficiency in expert work on an organisational level (Bailyn 1988; Raelin 1991; Tampoe 1993; Grossmann, Pellert & Gotwald 1997; Kubo & Saka 2002; Darr 2003; Davenport 2005; Benson & Brown 2007).

Generally speaking, the solutions proposed consisted in the designing and forming of organisational programmes, structures and behaviour according to the motivational disposition of professionals and knowledge workers. In other words: An organisation is well advised to satisfy professionals' motives of personal growth, operational autonomy, task achievement as well as material and immaterial rewards by institutionalising reward systems, career paths, challenging employment and adequate resources (Bailyn 1984; Tampoe 1993; Kubo & Saka 2002; Horwitz, Heng & Quazi 2003; Petroni & Colacino 2008).

Two questions, however, remain: Firstly, are said motivators really effective in every situation or are they apt to 'crowd out' existing intrinsic motivators, as some researchers suggest with respect to monetary rewards (Osterloh & Frey 2000; Osterloh & Frey 2006; Weibel, Rost & Osterloh 2010). Secondly, what is to be done if an organisation is not in a position or willing to adopt organisational programmes, structures and behaviour in compliance with the motivational demands of experts, professionals and knowledge workers?

Therefore, the motivation of experts for organisational goals, tasks and standards remains to be one of the crucial challenges the organisation has to address.

## The challenge of disseminating and using knowledge within an organisation

A third stream of research views knowledge workers from a business-oriented perspective, i.e. primarily as knowledge-intensive resources for the creation of complex products and services for clients outside and inside of an organisation. In this perspective, knowledge workers only create value for an organisation if they are able and willing to apply, to create and/or to disseminate value-adding knowledge to and for the benefit of external and internal clients; knowledge which, in turn, becomes part of the organisational knowledge base (Pfiffner & Stadelmann 1999; Drucker 1999a; Scarborough 1999; Newell et al. 2002; Davenport 2005; Hube 2005; North & Guldenberg 2008; North 2010; Probst, Raub & Romhardt 2010).

From this point of view, the crucial challenge of managing experts consists in the question of how value-adding knowledge can be disseminated within an organisation.

In this perspective, knowledge has to be viewed as a resource which differs from resources like manpower, equipment and material assets in three respects:

1. Knowledge is intangible and has to be made transparent.

Unlike tangible assets, knowledge can neither be perceived nor quantified. It can only be captured via verbal or documented representations. Consequently, knowledge, present in an organisation, is neither tangible nor can it be measured, but has to be made

transparent and available displaying a required content in the right form (Hansen, Nohria & Tierney 1999; Sun & Scott 2005; Probst, Raub & Romhardt 2010).

2. Knowledge is contextual and contingent on individuals.

Knowledge is different from data and information. It is developed in the process of an integration of individually significant information into an existing cognitive context in which said information has to be interpreted and evaluated. Different individuals will interpret and use equal information differently. Making data and information available does, therefore, not necessarily mean that it is being viewed as relevant or value-adding by its intended receivers in any specific situation. This explains the concepts of 'absorptive capacities' (Cohen & Levinthal, 1990), 'not-invented-here syndroms' (Katz & Allen, 1982) and 'defensive routines' (Argyris & Schön 1974; Argyris 1991).

3. Knowledge is public and will not be easily shared.

Since property rights cannot be applied to knowledge, nobody can be excluded from its usage. It can be seen as a kind of public good (Stieglitz, 1999). This, in turn, advances the risk of social dilemmata, especially that of 'free-riding' when it is being shared within an organisation (Dawes 1980; Frost, Osterloh & Weibel 2011). The willingness to share knowledge in an organisation, therefore, is not to be postulated, but has to be enforced. Crucial factors which enforce the dissemination of knowledge are cultural norms as well as personal relations (Sun & Scott 2005; Lin & Lee 2006; Ardichvili et al. 2006).

Owing to above-mentioned characteristics of knowledge, the sharing and usage of relevant knowledge within an organisation constitutes a challenge. Two types of strategies have, so far, been employed in order to handle said challenge (Nonaka 1994; Hansen, Nohria & Tierney 1999; Chai & Nebus 2011):

1. Codification strategies try to render implicit knowledge in an organisation explicit and available to many users by recommending IT solutions with the help of which information can be structured, retrieved and commonly used (Alavi & Leidner 2001; Richter & Derballa 2007). This strategy allows for a high re-use of information which is made accessible to a discretionary number of users while bypassing personal communication needs. The challenge, however, of contextualising knowledge as well as that of enforcing the willingness to share it, remains unsolved by this strategy.

2. Personalisation strategies try to facilitate the dissemination of implicit knowledge by enforcing direct communication between experts and non-experts. This strategy allows for a direct contextualization of knowledge according to individual demand (Nonaka 1994; Hansen, Nohria & Tierney 1999; Chai & Nebus 2011). At the core of personalisation strategies lies the institutionalisation of communities of knowledge (Wenger, 2008). By using this strategy, implicit context-based knowledge can be shared and the generation of new knowledge is fostered. Deviations in the quality and relevance of personally imparted knowledge, on the other hand, and the enforcement of the willingness to share relevant information are two remaining problems.

Despite considerable progress that strategies facilitating the dissemination of knowledge and experts' contribution to and usage of organisational knowledge have, so far, made, certain challenges still remain to be faced.

The literature review undertaken in the context of this study shows that the defining and measuring of expert productivity, that the motivation of experts for organisational goals, tasks and standards as well as that the dissemination and usage of knowledge within an organisation may be seen as the crucial challenges in managing experts. There are, however, some research gaps yet to be addressed, which question if these challenges are actually valid in the daily business of experts in different kinds of organisations.

## Research gaps and research design

The review of the existing approaches in defining the specific challenges involved in managing experts presented in chapter 2 uncovered three research gaps:

### 1. A conceptual gap

The concept of the expert as an associate, in the sense expounded in chapter 1 of this study namely of being engaged in the non-routine application of specialised knowledge to individual problems, overlaps with the concept of expert in cognitive psychology, with the concept of professions in occupational sociology and with the concept of the knowledge worker in business theory; those concepts are, however, not entirely congruent with the approach we undertook to propose in this paper. It could, therefore, be declared that the challenges involved in managing experts have not yet been investigated.

### 2. A theoretical gap

The challenges involved in managing professionals and knowledge workers have been derived from presumed specific characteristics of said workforce. They need not occur in all industries, organisations and circumstances. Yet, it is not known under which conditions they occur, nor is it clear which challenges are genuine for expert work. This calls for an empirically based theory of challenges involved in managing experts.

### 3. A methodological gap

The challenges so far identified were taken from three streams of research methodologies: firstly, from quantitative or qualitative case studies in specific industries or occupational groups and they have been generalised to apply to all industries and occupational groups. Secondly, from cross-industrial studies investigating only one aspect such as the motivation of experts. Thirdly, from theoretical considerations on the characteristics of knowledge work and, respectively, of professional work, from which the challenges have been derived. Hence, those challenges have never before been examined in a cross-industrial empirical study as opposed to the studies so far conducted.

These findings invite cross-industrial empirical research aiming at a theory of the challenges involved in managing experts.

This paper presents answers to above-mentioned research gaps, based on a cross-industrial empirical multiple case study research (Myers 2009; Yin 2009) carried out in five different organisations commonly regarded as 'expert', 'professional' or 'knowledge-intensive' organisations (a software development company, a hardware development company, a consulting company, a hospital and a university) in previous treatises (Grossmann, Pellert & Gotwald 1997; Alvesson 2004; Davenport 2005; Brinkley 2006).

In these organisations, 42 semi-structured episodic face-to-face interviews with experts and their managers from three hierarchical levels, accompanied by document analysis and focus groups (Flick 2000; Bortz & Döring 2003; Lamnek 2005) were conducted by the author in order to develop a theory of the challenges and strategies involved in managing experts. The data gathered by means of interviews were subsequently coded and



interpreted using the coding methodology proposed by Strauss & Corbin (1990) with the aid of Atlas.ti, Version 5.5.4 (Figure 1).

Owing to confidentiality agreements with all participating organisations, the results here presented have been described in an aggregated and abstracted manner. Hence, the original data cannot be disclosed, only referenced.

In the following chapter, the line managers' perspectives and those of the experts on the question of which key challenges they perceive in managing experts are being presented in an overview.

## Research results

### Line managers' perspectives

The perspectives of the line managers on the question of which key challenges they perceive in managing expert performance comply to a certain extent with the challenges delineated in previous research and exposed in chapter 2.

One challenge has been commonly perceived as the key challenge by all line managers across the different industries and management levels: the challenge of motivating experts for organisational priorities, which correlates closely with the sociological point of view referred to in chapter 2.2.

The topics, however, for which experts are to be motivated differ across the five organisations studied:

In the software development business studied, in which software engineers specify and develop software functions for mainframe computers in large business environments, the main challenge perceived by the line managers was to motivate experts 'to leave their ... their 'innate' domain of expertise in order to move to another one with uncertain ends. (...) For managers such changes are easier to cope with, from my perspective, since they are working with tools and methods which are easier to transfer to a different domain. ... / Ehm/ For experts who have acquired expert status and expert knowledge in extremely complex domains it is much more difficult" (InterviewTranscript\_Software\_R). The department managers referred to the same challenge on a rather operational level, 'My job is to take up the strategies of [company name] and to try to implement them via the team manager in the respective software teams' (InterviewTranscript\_Software\_B).

A very similar challenge was being named by the line managers of the consulting organisation. Here, the consultants are engaged in the support of business customers, solving strategic and operative IT-infrastructure issues. Since in this business, changes occur even faster than in software development, the crucial challenge is 'to realise in time where the train is heading to and /eh/ that we take the right measures to steer our associates in the right direction with respect to /eh/ behaviour, skills /eh/ as well as technologies' (InterviewTranscript\_Consulting\_W). This is being perceived as challenging since it seems to be difficult 'to govern individualists in such a way that they perceive the goals of [company name] ... /eh/ as their own goals' (InterviewTranscript\_Consulting\_Wz).

The challenge of motivating experts for organisational priorities has also been named by the chancellor and the deans of the university, but with a slightly different meaning. In the

'university business', the primary challenge does not consist in aligning experts with rapidly changing market demands, but to counterbalance the individual interests and priorities of the professors with the priorities of the faculties and the university, 'The main challenge in the role of a dean is /eh/ ... /eh/ to try to create a climate in which the given freedom, the given freedom, which I regard as being important, is used effectively not only in order to pursue one's own individual interests, but also to pursue the overall development of the institute or the faculty' (InterviewTranscript\_University\_L). The chancellor, then, went on to corroborate his opinion that this is not easily achieved, 'The task of a chancellor is nothing else, but ... to institutionalise good conditions that these highly intrinsically and, of course, also extrinsically motivated individuals ... are able to deliver good work. He can control a little. I think, in fact, ... I see my main task in equipping this ship here, which is on its way and which is, at times, steering pretty clumsily in one direction, as well as possible. And this is, ... - to use the same metaphor - not to steer this ship in a completely reverse direction' (InterviewTranscript\_University\_T).

Another example for the challenge of motivating experts for organisational priorities has been broached by the chief physicians of the hospital with respect to their associate physicians in the respective departments, 'All the documentation is annoying. Today, in the morning we have, we have to create this /eh/ these ICD codes in order to get our scores, the LFK scores, to get them, and so on. .. Up to now, administration has created the codes. .. It is evident that administration has no time left to do that and says: The physicians should do that. If we, then, reply, why should we do that? They answer: That are your scores and not ours. ... (...) Okay, ... now my physicians counter today in the morning: This is a mess, this is so much work to do. Then I tell them: Slowly, slowly, what does that mean now? ... Yes, that we have to do this now, ... we cannot do anything about it. .. (...) Therefore, we have to accept it. (...) Hence we turn the tables and ask ourselves: What can we do about it in a positive way? Administration has never optimised the scores. We need these scores for our negotiations. ... Yes, then we optimise them from now on. We figure a way out to get the most out of it by investing as little effort as possible. (...) ... If we manage to do this in a smart way, we might reach some positive outcomes for us with minimum effort' (InterviewTranscript\_Hospital\_DH).

In the hardware development organisation, finally, in which electrical engineers develop circuit boards and casings for the automotive industry, the challenge of motivating experts for organisational priorities has been broached by the department heads in, again, yet a different sense. Since this organisation underwent a major reorganisation one year prior to our exploration, the main challenge faced by the department heads was 'to keep the associates on track. Since the frustrations, ... since the problems always finally accumulate on my desk, /ehm/ to retain the associates for the organisation is the crucial task I am faced with. And, simultaneously, to bring the whole organisation into a more stable state' (InterviewTranscript\_Hardware\_SCM).

As can be seen in all five organisations, the line managers commonly mention the motivation of experts for organisational priorities as being their crucial challenge in the management of experts. This is due to the fact that management is concerned with governing priorities while experts enjoy a great deal of operational and also strategic autonomy in their field of work.

Differences between the five organisations studied relate to differing priority contents, such as the adaptation to changing market demands or the decision for a medical treatment. A closer look into each single organisation reveals that the priority contents

depend on the actual situation of the organisation's business.

Regardless of the priority contents, however, line managers use the same management techniques in order to cope with above-mentioned challenges:

1. They employ the management-by-objectives system in order to define and control organisational and developmental priorities on an annual basis,
2. They focus their attention on certain important topics which cannot be adequately controlled on an annual basis,
3. They issue incentives and / or directives where possible and adequate in order to have organisational and developmental priorities done,
4. They try to buy experts in for organisational and developmental priorities since the realisation of said organisational and developmental priorities strongly depends on the experts' commitment, especially in 'white box management' systems,
5. They design and control individual posts and positions and development plans in order to balance personal and organisational interests.

To sum up, the managerial task of governing priorities combined with an expert's autonomy (in her/his respective field of work) results in the challenge for the line managers to win the experts' favour for organisational priorities. This challenge is handled by techniques such as management-by-objectives, focusing the management's attention on selected topics, by issuing incentives and/or directives, by a buy-in of experts as well as by a modelling of positions according to the predilection of their holders and by the development of plans balancing personal and organisational interests. The priority contents as well as the need for governing priorities and the effectiveness of the strategies employed are dependent on the actual business situation. These correlations are depicted in Fig. 2 derived from the structure of a 'grounded theory' which has been proposed by Strauss & Corbin (1990):

### Experts' perspectives

Summarising the point of view of the experts of the five organisations studied was more easily and precisely achieved than the summarising of the point of view of the managers: The predominant challenge was seen as the management of their own expert work. This challenge has been commonly labelled as 'time management' or 'self management' (Allen 2002; Covey 2005; Drucker 2008) but has rarely been regarded as being the crucial challenge in expert work.

Managing their own expert work also had slightly different nuances in meaning for the experts of each organisation:

In software development it meant, '... that from [land in Europe] there are always many requests relating to technique, relating to organisational issues. /Ehm/ ... Sure, if there are any customer issues, that is also every time an interruption of ... my daily work. This happens very often' (InterviewTranscript\_Software\_Ba). Said interrupts come from the outside as well as from the inside of the organisation, 'In our business, reliability is not very high. (...) This means, if the company decides, as an example, here we cut and /eh/ and /eh/ just as an example, here we delay something, ... then I could have agreed on any delivery date. I would have had no chance whatsoever to keep this agreement' (InterviewTranscript\_Software\_G).

In the consulting business, 'the main challenge consists in structuring and /eh/ in prioritising the different tasks which you perform in parallel in an effective way and /eh/ and that ... you arrive at a balancing of the different tasks done' (InterviewTranscript\_Consulting\_L). Another aspect has been brought forward by a consultant who is responsible for the small-and-medium-business segment, 'In midmarket, that is, in the small and medium businesses in which, in most cases, only one business partner is engaged, it is often the case that I get, as an example, on Tuesday /eh/ ... a long e-mail with twenty attachments and that I have to deliver till, say, Thursday. Such are our, our ... our challenges, you see" (InterviewTranscript\_Consulting\_F).

The same challenge has been mentioned by the professors of different faculties and institutes, 'The daily challenge is /eh/ the assignment of our own resources. There is, for sure, for all associates in our organisation /eh/ an explicit discontentment in regard of ... /eh/ research and /eh/ time. (...) Especially lack of time for research. That is that. /Eh/ It is an issue, so to speak, something, ... yes ... /eh/ ... with which I am also personally /eh/ struggling' (InterviewTranscript\_University\_B). The same challenge has also been named by colleagues from other faculties, 'From time to time I make some plans and from time to time it works, but not to the desired extent, yes. This, this, time management is certainly a challenge which you have to learn and, and, for which, unfortunately, it has here up to now ... I mean, at the time I grew up, here, in this system, this was not known, it did not exist. It was not clear that time management is something you have to learn and, also, where you have to gain experience' (InterviewTranscript\_University\_N).

The physicians in the hospital, regardless of the medical department in which they worked, named that very challenge (in a different sense) as their major one, 'The biggest challenge is that you /ehm/ ... cannot plan your daily work very well. (...) The patients come as they like to. Then ... I do, for example, not only an ultrasonic scan and the diagnostic part, but also surgeries. That means, it could be one surgery or two surgeries. It can go well so that you are finished after one hour. Or it could go wrong so that you need four hours. (...) And everything else will not be done or will be delayed and, ... yes, ... the lack of predictability' (InterviewTranscript\_Hospital\_DM). Another aspect of managing one's own work has been mentioned by a fellow physician from another department, 'We have to complete a huge amount of administrative work for the department. (...) And this is annoying when you have to do it in the evening during overtime hours. We are not allowed to work overtime. Our boss feels the pressure from the administrative departments. (...) And nobody wants this' (InterviewTranscript\_Hospital\_DR).

These are the same challenges also faced by the hardware engineers of the hardware development organisation. One engineer who develops circuit modules for customer projects stated, 'The biggest challenges are the changing aims and objectives. Not the internal ones, but the ones which come from outside [of our team] and disrupt everything' (InterviewTranscript\_Hardware\_W). A colleague of his brought the challenge of managing one's own work forward in a slightly different meaning, 'There is a huge amount of topics which buzz through this organisation and /eh/ ... that means to work on the right topic at the right time, ... /eh/ is, for sure, the main challenge. /Eh/ Right now, at the beginning of this week, I said to myself: I have to lean back here and think about what is really important. Since you get lost very easily, so to speak. (...) It is like in a rat race: jumping from one e-mail to the next one and from one topic to the next topic ... and you start to lose the big picture: What are the important things, what is actually our /eh/ our strategic goal, ... topics which you should take care of. This is, in my perspective, the ...

the main challenge: to manage the balance between operative daily necessities and to go into a distance, from time to time, in order to think about where we are heading to' (InterviewTranscript\_Hardware\_P).

Irrespective of the industry and the management system in which the experts worked, managing their own work was seen as the crucial challenge from the point of view of software and hardware developers, consultants, professors as well as physicians. Managing their own tasks meant: There are numerous tasks and priorities to be handled, permanent task switching is to be managed, in some areas, little predictability of the work and also numerous stakeholders inside and outside of the organisation are to be satisfied. The multiple stakeholders and stakeholder requirements, changing over time, are, therefore, to be seen as the main cause for this challenge which was affirmed by all experts interrogated.

The aforementioned challenges are managed by the experts purely on an individual level: Some experts define their own priorities in order to cope with the amount of tasks and requirements. Others try to improve on structuring their working time, so that they have 'quiet slots' in the mornings or evenings in which they can accomplish their concentration-intensive work, and they plan for it on a daily, weekly or monthly basis. A third approach consists in trying to align one's stakeholders and their requirements with one's own tasks.

In summary, due to multiple and changing stakeholders and stakeholder requirements, experts are faced with the challenge of managing their own expert work and coping with phenomena such as numerous parallel tasks and information, continual task switching as well as with little predictability of work. They try to counteract these challenges on an individual level by defining their own priorities, establishing and using 'quiet slots' as well as by aligning stakeholder requirements with their own work scope. All three parameters, i.e. the causes, challenges and strategies, mainly depend on the degree of strategic and operational autonomy an expert has. The more autonomy she or he has, the less is he dependent on fulfilling stakeholders' requirements, the smaller is the challenge and the more effective the strategies to cope with it. This correlation becomes evident when comparing the professors' situation in university with the situation of the physicians in the hospital. While the first group enjoys the highest degree of autonomy in the organisation studied, the second group possesses the lowest. Consequently, the first group has the privilege simply of ignoring some of their stakeholders and their requirements while the latter is under the constraint to fulfil those requirements to a much higher degree. Hence, the challenge of managing one's own work is, by far, more pronounced for the physicians than for the professors and, reversely, the options of coping with said challenge are more demanding on the physicians than on the professors.

The correlations between stakeholder requirements, the challenge of managing one's own expert tasks and individual strategies to handle these are depicted in Fig. 3:

When comparing the perspectives of the line managers to those of the experts, in the five organisations studied, one was prone to come to the conclusion that the challenges which line managers perceive have no relation to the challenges which are seen by the experts.

This conclusion, however, is wrong as a closer look and the results of the focus groups show.

## Managing experts is part of the problem, not its solution

Taking the perspective of line managers in the context of expert work, their main task consists in governing priorities by defining and implementing the strategic orientation of an organisation in alignment with their sponsors' and customers' interests. With few exceptions, not detailed here, they understand their role in such a way as to entirely refrain from intervening with the professional work of the experts reporting to them. The policies pursued by them could be described with the help of the following interjections and statements: 'Don't interfere!' (InterviewTranscript\_Software\_R), 'Don't tell them!' (InterviewTranscript\_Consulting\_W), 'Let them be self-employed employees' (InterviewTranscript\_University\_B), 'They are completely autonomous' (InterviewTranscript\_Hospital\_DK), and respectively, 'I am completely dependent on them' (InterviewTranscript\_Hospital\_Hardware\_S). Therefore, they have to define and monitor strategies, tasks and resources on a rather abstract level which does not directly interfere with the experts' daily work.

The experts, on the other hand, repeatedly stated that the line managers are to their own work nothing more than further stakeholders who can be added to the already existing list of stakeholders of internal and external customers, sales, administration and fellow experts in related domains. Moreover, the line managers as an additional stakeholder group add additional requirements to the experts' work. This statement can be corroborated by analysing the annual goals, the incentives and directives as well as the topics on which line managers place attention in the different organisations, such as

- the additional development and management of patents and integrated features in software development,
- the publication of papers and the acquisition of new customers in consulting,
- the organisation of conferences or the acquisition of third-party funds in scientific and academic work,
- the establishment of interdisciplinary centres in the hospital,
- the reorganisation of one's own work in hardware development.

Taking both perspectives into account, it became obvious how the specific challenges which line managers perceive are linked to the challenges which experts mention. They 'act' as additional stakeholders' requirements and are implemented by means of the management-by-objectives technique, management attention, incentives, directives, buy-in activities, the implementation of individual job designs and of development plans. These additional stakeholder requirements inadvertently compound the challenging situation of experts, who already struggle with their daily stakeholder requirements. This relation is depicted in Fig. 4.

This lead to the conclusion that managing experts, as presented in the five organisations investigated, is part of the management problem, not its solution. This management problem, moreover, has deteriorating effects on expert productivity as repeatedly stated by organisational psychologists (Rubinstein, Meyer & Evans 2001; Monsell 2003; Spira & Feintuch 2005). According to their findings, multitasking and task switching which are perceived as the crucial challenges by experts approximately account for a 20%- to 40% -loss in expert productivity. Taking this point of view, not the definition and measurement

of expert productivity as proposed in chapter 2.1 is to be viewed as the major challenge, but not deteriorating it by managing them.

These findings call for a redefinition of management principles in a professional context in which the work of experts is concerned. Line managers are able to support the self-management of experts and their productivity by following one central principle: By keeping experts focused, or, as Malik (2006) and Drucker (1999a; 1999b) put it, by focusing them on few things. In other words, managing expert work cannot be left to the knowledge workers alone, but has to be supported on an organisational level.

The study here presented designed and tested measures to keep experts focused on three levels. This was achieved with the help of the participants interviewed (Fig. 5):

1. On an individual level, the establishment of 'quiet slots' included the performing of concentration-intensive tasks like the analysis of customer specifications, the writing of system specifications or the reviewing of test reports in flexible time bands, either early in the morning or late in the evening while using meeting rooms or the experts' home offices instead of open-plan offices. This was implemented as a work option for everyone in the organisation by providing additional 'quiet rooms' respectively making working times more flexible. Additionally, the experts found out that the 'agile planning' of their work day is much more effective than a detailed long-term planning which might never be realised owing to continual changes of schedules.

2. On a group or project level, 'consultation hours' have been established in order to allow engineers as well as their internal customers to perform concentration-intensive tasks within the usual office hours, sidestepping internal disturbances by the phone or by meetings. Between 10:00 a.m. and 12:00 a.m. the group had such 'quiet slots' and was, during that time, assisted by a first-level support who dealt with urgent inquiries. Beyond that, short 15-minutes 'stand-up meetings' have been established instead of weekly one-hour meetings, since meetings had been determined to represent one of the most aggravating time killers in the organisation. This resulted in meeting time being used in an enhanced and more efficient manner.

3. On an organisational level, there have been attempts to restructure the job design in the direction of creating few comprehensive tasks instead of numerous small tasks with a view to keeping experts focused. Additionally, workshops called 'systematic waste disposals' have been organised in order to stipulate tasks no longer worth pursuing.

The effects of the 'quiet slot' and 'consultation hour' approaches when compared with the performing of the same tasks in usual office conditions are depicted in Fig 6 with respect to three engineering tasks:

- creating a system specification,
- analysing a test specification and
- answering a complex customer request.

The aforementioned measures could serve as a guideline towards which line managers might orientate their role behaviour when working with experts in a professional context. They point in a direction which does not require a complete transformation of management, but requires a more precise management, which exactly balances the need for organisational change with the need for individual focusing.

## Conclusions

The paper here presented undertook to identify crucial challenges in managing experts. Experts have been defined, by this study, as associates whose main task consists in the non-routine application of general knowledge to specific cases. In literature, management challenges with respect to experts have never been investigated. Said management challenges have, however, been abundantly explored in the literature on professionals and knowledge workers. Said literature proposes that the definition and measurement of productivity, the motivation for organisational goals and standards and the contribution to as well as the usage of organisational knowledge are to be regarded as the major challenges.

In the study here presented, which undertook to explore five different expert organisations from five different industries, the challenges so far determined by literature on the subject were not fully corroborated. Line managers in software and hardware development, consulting, a hospital environment and in a university commonly view the motivation of experts for organisational goals and standards as the crucial challenge in managing experts. Hardware and software engineers, consultants, physicians and professors, on the other hand, regard the management of their own expert work, i.e. dealing with parallel streams of tasks, numerous task switchings as well as heterogeneous stakeholder requirements, as their main challenge.

It has been found out that line managers in expert organisations inadvertently contribute to this situation, since governing organisational priorities implies nothing else as additional stakeholder requirements from the point of view of experts.

The main task of line managers, therefore, consists in balancing their own task of governing priorities with the need of keeping experts focused and concentrated on their predominant tasks. This study undertook to design and test different measures such as establishing 'quiet rooms', 'consultation hours' and 'systematic waste disposal' to support the focusing of experts.

With respect to management theory it can be stated that the challenges so far identified in literature are also valid for the management of experts, as understood by this study. They do, however, not commonly apply to all kinds of organisations and industries and are not to be regarded as the crucial challenges. The crucial challenge in managing experts, according to the findings of this study, consists in the balancing of organisational priorities with the need to keep experts focused. Regarding this challenge more research is needed in order to design strategies and methods. Moreover, the devising of measures to determine the effects of the designed strategies and methods would be useful.

As for management practice, the roles, principles and tasks of line managers in expert organisations have to be revised. Instead of operating on a purely strategic level by continually confronting experts with new and numerous 'topics' which have to be implemented, the new task of line managers would consist in keeping experts focused. This means identifying those few topics which are crucial for the respective business and shielding experts against any additional impinging activities.



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# Environmental Reputation of Food Production Industry and Its Financial Connotations

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## *Abstract*

*According to recent studies published, both by the EU and the UN, the food industry is one of the biggest contributors of greenhouse gas emissions and other related environmental pollution. As sustainable development and global warming have in recent years gained increased importance, expectation would be that the various stakeholders force companies to improve their environmental performance. With the parallel advancement of the Information Age consumers and investors can now easily and almost instantaneously access company records. The media, including the Internet, which have become one of the main champions of environmental issues not only plays an important part in forming a firm's reputation, but also in influencing their stock price. In this context information takes on a new role, and can create incentives for companies to adopt a more environment-friendly behaviour. This paper sets out to examine coverage of the industries' environmental reputation in the international media contrasting it with its financial performance. How did attitudes change in recent years, and how should companies change with them to benefit from this increased attention?*

*Keywords: environment, reputation, media, food industry*

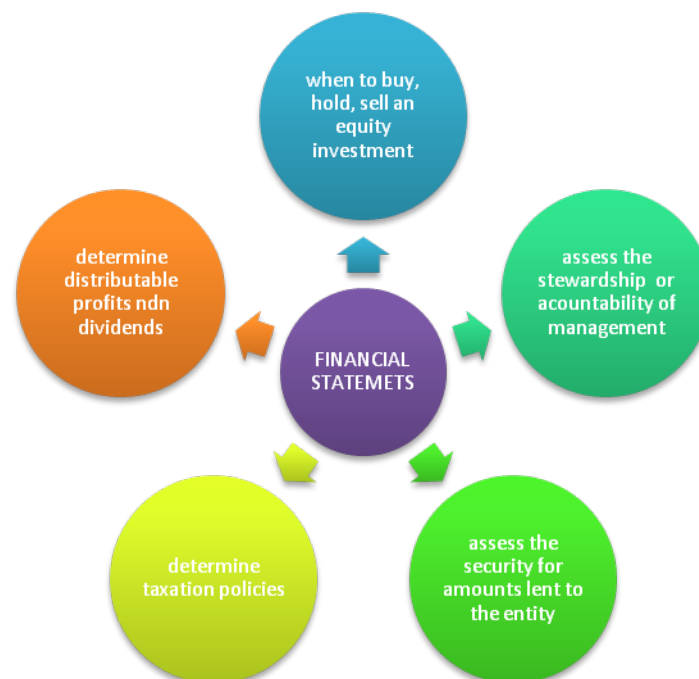
## Introduction

The food industry is facing a rapidly changing and ever more challenging environment. There are major transformations happening in population, urbanization, resource utilization and climate that together with the shifting consumer and government attitudes, are continuously rewriting the environment in which companies have to operate. Additionally, the communications revolution of the last decades brought us greater interconnectivity resulting in an increasingly transparent society. Socially Responsible Investors (SRI) combining forces with the media and Non-Governmental Organizations (NGOs) have emerged as a major force compelling firms through the capital markets toward a more environment friendly behaviour. The global food industry is especially susceptible to climate change and shifting consumer attitudes and thus has to increasingly respond to external stakeholders in order to remain competitive. How did attitudes and perceptions change in recent years toward the industries environmental performance and how did this influence their financial results? Our research investigates forty-six global food industry companies.

## Environmental Effects of Food Production and Consumption

According to a recent study commissioned by the European Commission, the biggest contributors to environmental pressures are food production and consumption, transportation and housing (Fig. 1).

**Figure 1. Environmental Pressures per Euro of Spending of Household Consumption Categories**



Source: ETC/SCP Working Paper, 2011  
GHG: Green House Gases

Specifically, the food and drink sector contributes to some 23% of global resource use, 18% of greenhouse gas emissions and 31% of acidifying emissions (ETC/SCP, 2009). The numbers include all resource use and pollution emitted during the production of food from the farm through to the supermarket shelf, including the production and application of fertilizers, fuels in agricultural machinery, electricity consumed in food processing plants etc. The United Nation reports similar figures. Of global emissions in 2005, agriculture accounted for an estimated 10-12% of carbon-dioxide, 60% of nitrous oxide and about 50% of methane (excluding emissions from electricity and fuel use). Globally, agricultural CH<sub>4</sub> and N<sub>2</sub>O emissions have increased by nearly 17% from 1990 to 2005 (IPPC, 2007). Packaging waste in the EU-15 amounts to more than 160 kg per person per year. More than two thirds of packaging waste is related to the consumption of food (INCPEN, 2001).

## Global Trends in the Food Industry

The food industry is facing several challenges all of which not only affect its profitability but also its reputation and long term viability (Table 1).

According to a study done by the European Commission, the use of GMO, chemicals in our everyday products, agricultural pollution, depletion of natural resources and

consumption habits were all in the top fifteen most important environmental concerns named by European citizens (Eurobarometer, 2005).

**Table 1. Global Trends in the Food Industry**

	Symptoms	Underlying Issues	Possible Solutions
Health and Nutrition	obesity	supersizing	natural & organic products
	cancer	processed, ready to eat foods	government regulation (taxes etc.)
	heart disease	advertising to children	healthier school programs
	food allergies	salt, sugar and fat content	restrictions on advertising
	diabetes	additives	food labeling health foods
Safety of Food Products	food poisoning outbreaks	pesticides	food labeling
	birth defects	fertilizers	food traceability
	cancer	packaging (BPA etc.)	supplier partnerships
		GMO foods contamination	new bio-materials
Sustainability	water shortage	climate change	eco-labeling
	land shortage	unsustainable agricultural practices	more efficient growing and production techniques
	food shortage	bio-fuel production	local produce
	rising prices	population explosion	Fair trade
	waste		renewable energy

GMO: Genetically Modified Organisms  
BPA: bisphenol-A

### Health and Nutrition

Consumers and governments are increasingly focused on health and the role that food companies play in influencing consumption patterns. According to the European Union obesity currently accounts for up to 7% of health care costs and is expected to increase (EC, 2006). The increased presence of processed, ready to eat food in our diets has also led to alarmingly high cancer and heart disease rates. Consumers now list limited processed food intake among the most important components of healthy eating, right behind eating vegetables and fruits (Mintel, 2009).

The industry’s irresponsible marketing practices have recently also come under fire (‘super sizing’, targeting children, subliminal advertising, product placement etc.). Several governments have started to institute health programs for schools or to introduce taxes on unhealthy foods, such as chips and sodas. There are also proposed new restrictions on advertising to children.

Based on these trends food manufacturers are now increasingly focusing on the production and promotion of healthier foods in order to keep and expand their client base. Although, the new natural and organic product lines do stimulate sales and bring

extra profit they also open up food companies to the probability of being sued in case of false health claims.

## Safety and Quality

Food, by its nature, requires that it should be safe and of good quality. As consumers can easily switch between food products, brand loyalty is extremely important in keeping market share. The production and distribution of contaminated food that in extreme cases can even lead to countless deaths is particularly costly to companies (directly through to loss of sales and incurred legal expenses and indirectly through the loss of reputation). Fears related to food production have been heightened by recent food safety shocks (in 2011 the German E. coli and the U.S. listeriosis, in 2008 the Chinese milk scandal and United States salmonellosis outbreak, in 2003 Avian influenza outbreak, cattle infected with Bovine Spongiform Encephalopathy (BSE) in the 1980's etc.). A continued globalisation of our food supply can lead to the emergence of new food-safety risks or the re-introduction of previously eliminated risks. Contaminated food or food borne diseases could be spread across greater geographical distances and would be harder to track and contain.

Additionally, researcher are now more and more often linking the use of various pesticides, fertilizers and packaging (such as Bisphenol-A, BPA) or cooking materials (teflon) to adverse human health effects. As a result in 2010, 39% of consumers, cited chemicals in foods as the most important food safety issue today (up by 9% in just one year), second behind concerns about bacteria named by 44% (IFIC, 2010).

Even though genetically modified foods seem to offer a solution to the scarcity of resources, most European consumers do not support the use of Genetically Modified Organisms (GMO) as their effects on health and the environment are as of yet no fully understood.

## Resource and Waste

The industry is critically dependent on the availability of natural resources, especially that of fertile soil and reliable water supplies. However, due to the past unsustainable agricultural practices, the ongoing urbanization, and the increasing effects of climate change the availability of these resources is becoming increasingly scarce. At the same time the population boom in the emerging markets (China, India and Brazil, the BIC countries), and the increasingly affluent nature of these consumers places additional burdens on the demand side of the equation.

The global energy need created a rising demand for bio-fuels. This diverted land away from food crop farming to energy crops instead. Additionally, there is an increased demand in meat consumption which again puts constraints on the availability of land to grow crops. As a result, there has been a drastic worldwide increase in food cost which impacts the world's poorest people particularly hard.

About 70% of the world's fresh water is consumed by agriculture activities. As populations grow and the effects of climate change are increasingly become apparent this ratio will only worsen. The demand for meat is already placing extreme pressures on water supplies, as the production of one kilogram of beef requires around 15,000 litres of

water vs. 1kg of wheat only requires 1,500 litres (ICID, International Commission on Irrigation and Drainage).

Climate change is a relatively new concept that companies have to contend with. It can result in increased temperatures, drastic changes in precipitation patterns and an escalation of extreme weather, all of which would have severe effects on the food sector. It might seem ironic that the green house gases blamed for global warming have to a great extent been created by the exact same companies that in the end will have to cope with their effects.

The food industry contributes to another big problem of today and that is the question of waste. A large portion of packaging, in many cases serving a purely marketing or transportation purpose, ends up in landfills never to be utilized again. Packaging however can have an additional role. Front-of-product consumer labelling can create a more transparent, better understandable communication toward consumers and could simultaneously address several concerns including health, nutrition, safety and the environment.

Whether we focus on climate change, the global obesity epidemic, initiatives to remove salt and trans-fatty acids, improve front-of-product consumer labelling, or revise policies on marketing to children, global food and beverage companies must increasingly respond to external stakeholders.

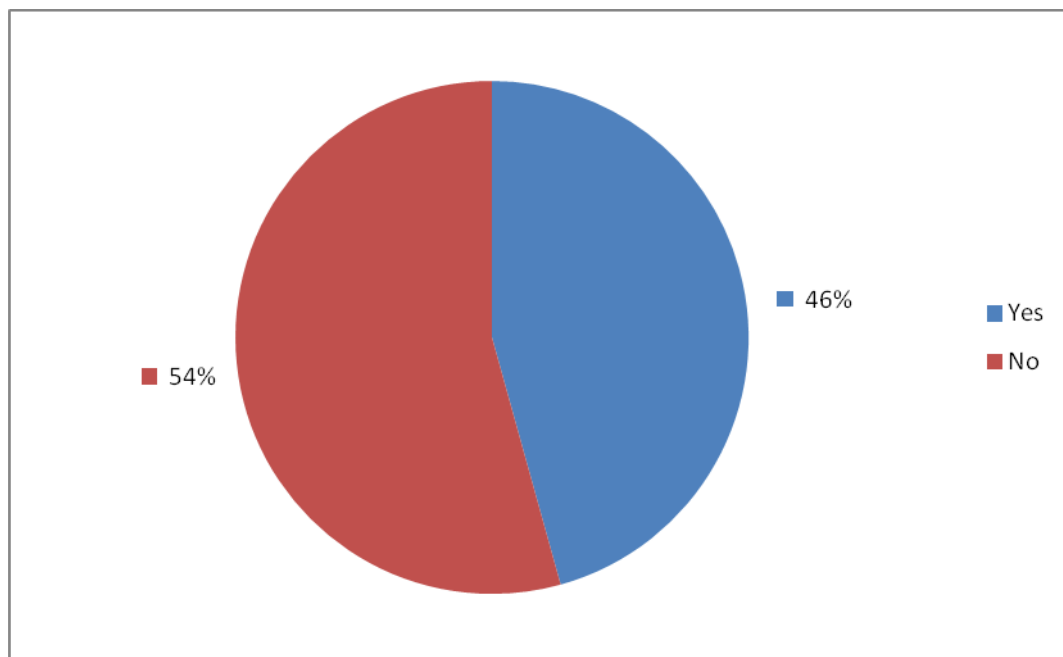
## The Role of Media

Media plays an essential part in today's society often displacing other traditional institutions of education, religion and government. It not only entertains, but it informs and helps people to form opinions. In today's transparent society when environmental and social disasters are highly-publicized, well-known companies can incur enormous costs and liabilities with long lasting effects. In April 2010, the Deepwater Horizon oil spill had yet again reminded investors of the importance of incorporating environmental issues into stock evaluation. This oil spill had serious financial implications for millions of pensioners all over the world.

The sustainability topic backed by new grassroots movements is receiving increased attention by the general public, mainly in developed countries but also globally. The print media has seen a jump in articles discussing environmental concerns and several special interest magazines catering to sustainability issues have also appeared (Fig. 2).

An important development of the last decade was the proliferation of mobile phones and the internet to such a degree where any private person can reach millions with their eye-witness reports. Activists are trying to reach the younger generation through social media which is very trendy among young voters.

Consumers usually acquire their environmental knowledge through the media, and the media often times relies on NGOs to receive their information. In the earlier mentioned Eurobarometer survey people ranked NGOs as the number one trusted source for environmental information and the media (television, newspapers and radio) came in a close second. The companies themselves came in dead last (only 3% of respondents ranked companies as trustworthy when reporting environmental information).

**Figure 2. News Articles by Topic in The New York Times**

In recent years, the number of publications where research institutes and investment groups release various rankings about firm's environmental or social performance have increased exponentially. These studies rank companies from various standpoints, examining their corporate social responsibility to the smallest detail. The rankings then appear in the columns of major newspapers, such as Newsweek, or on TV channels, like CNN, that reach millions of viewers.

## Environmental Reputation of Food Companies

### Sample and Methodology

The food production industry is highly concentrated with the top four players (Nestlé, Unilever, Kraft and Danone) constituting more than 50% of the global market capitalization of the top thirty food companies. Thus, our research is primarily focused on large multinational companies. Our research sample comprises of forty-six unique firms from nineteen primary Standard Industrial Classification (SIC) codes that are traded on the New York Stock Exchange (NYSE) and NASDAQ. The study excludes all alcoholic and tobacco related products as they would skew the results due to reputational preconceptions.

Table 2. provides descriptive statistics of the sample in regards to size and financial performance. The average size of the companies in terms of market capitalization is over \$13 billion USD, while the mean profitability expressed in the P/E (Price/Earnings) ratio is around 20, which is in line with other industries.

We have examined the companies' stock performance, media coverage and green reputation for the five year period between 2006 and 2010. For company media coverage we looked at the number of environmental related articles published in the printed media. For environmental reputation we have computed an average environmental score based on rankings published in the media (Newsweek Greenscore, CRO Magazin etc.),

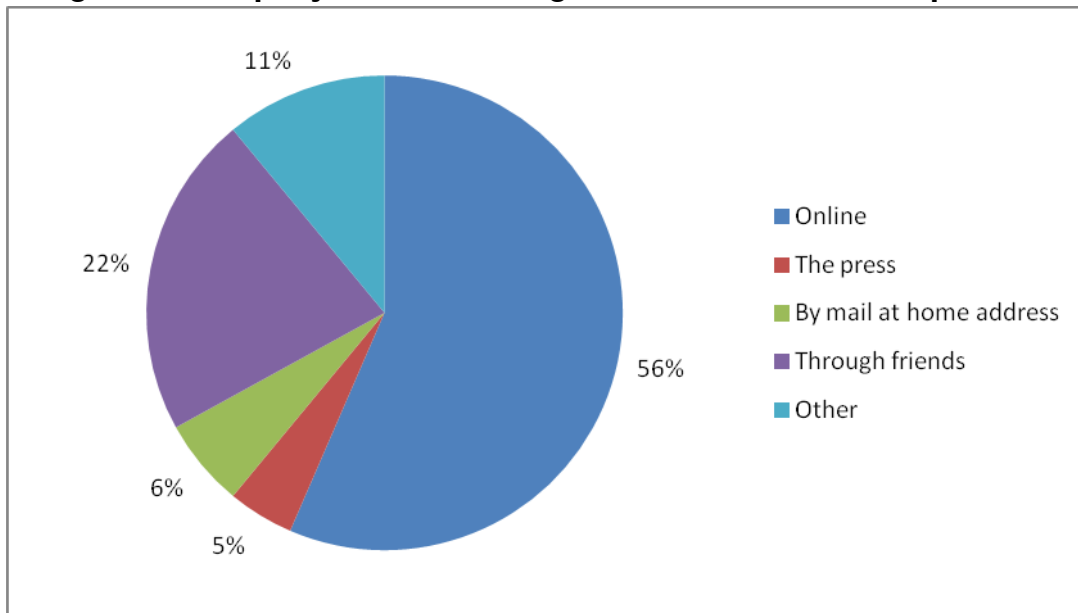
investment fund analyst companies (Maplecroft, KLD) and by NGOs (CERES, CDP). We have then ranked the companies into five categories with one being the highest and five being the lowest score (Fig. 3)

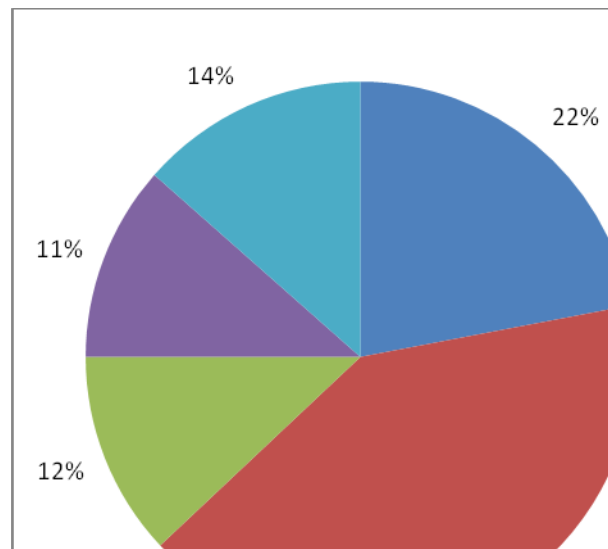
**Table 2. Descriptive Statistics of Sample Firms**

	Market Capitalization (\$M)	Total Assets (\$M)	Sales (\$M)	Debt/Equity Ratio (LEV)	Beta	P / E Ratio	ROE
Mean	13 486	9 632	10 587	0.88	0.81	19.81	20.77
Median	3 710	4,080	3 960	0.68	0.61	16.29	13.88
Std. Error	28 188	14 812	15 200	0.82	0.62	14.73	17.99
Minimum	337	484	499	0.00	0.10	-0.06	2.86
Maximum	145 170	66 710	61 682	3.97	3.08	85.47	83.95

Measure of Risk- Beta: volatility, or systematic risk, of a security in comparison to the market as a whole  
 Measures of Profitability- ROE: Return on Equity, P/E: Price/Earnings Ratio  
 Measure of Indebtedness- LEV: Long term Debt/Equity Ratio

**Figure 3. Company Media Coverage and Environmental Reputation**





### Results and Discussion

Environmental coverage of food industry has been steadily growing in the last five years and the industry’s green indicators have also improved (Fig. 4). Although only seven of the forty-six companies have been consistently included in the rankings more and more of the food manufacturers manage to make it on the lists.

When comparing the firms’ environmental reputation and their ROE it can be clearly seen, that with the exception of one outlier, companies that score lower on the reputational scale also have a lower Return on Equity (ROE), and companies that have a higher than industry average reputation tend to have better or close to the industry average ROE (Fig. 5).

**Figure 4. Development of Media Coverage and Environmental Reputation**

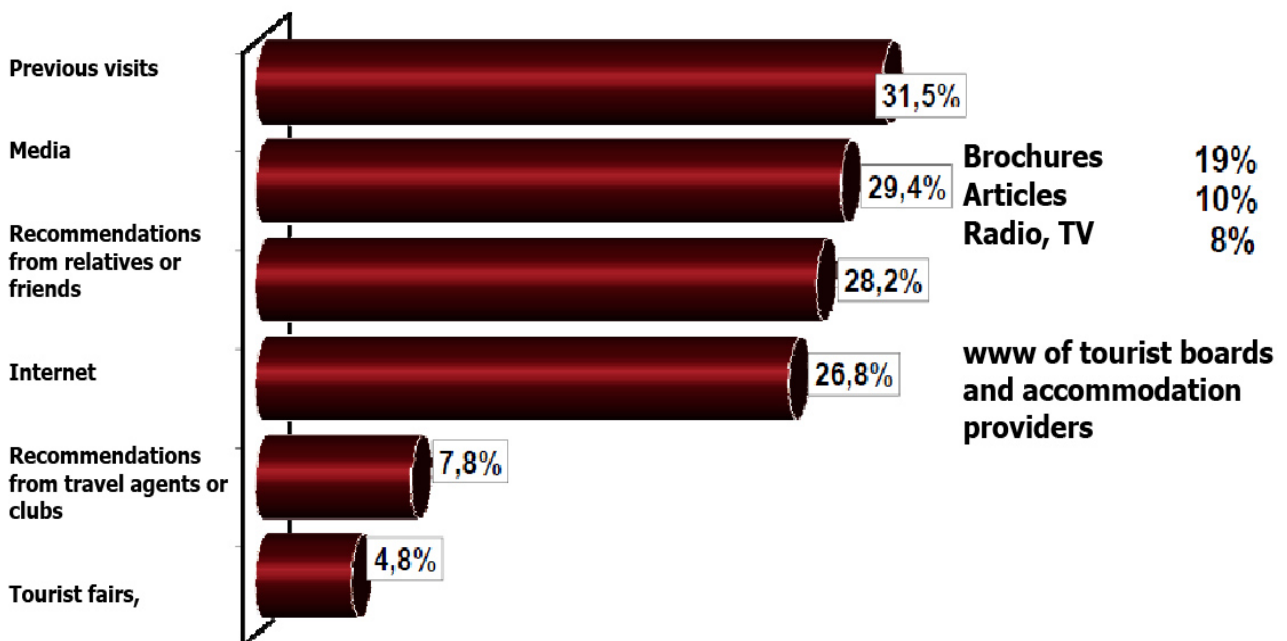
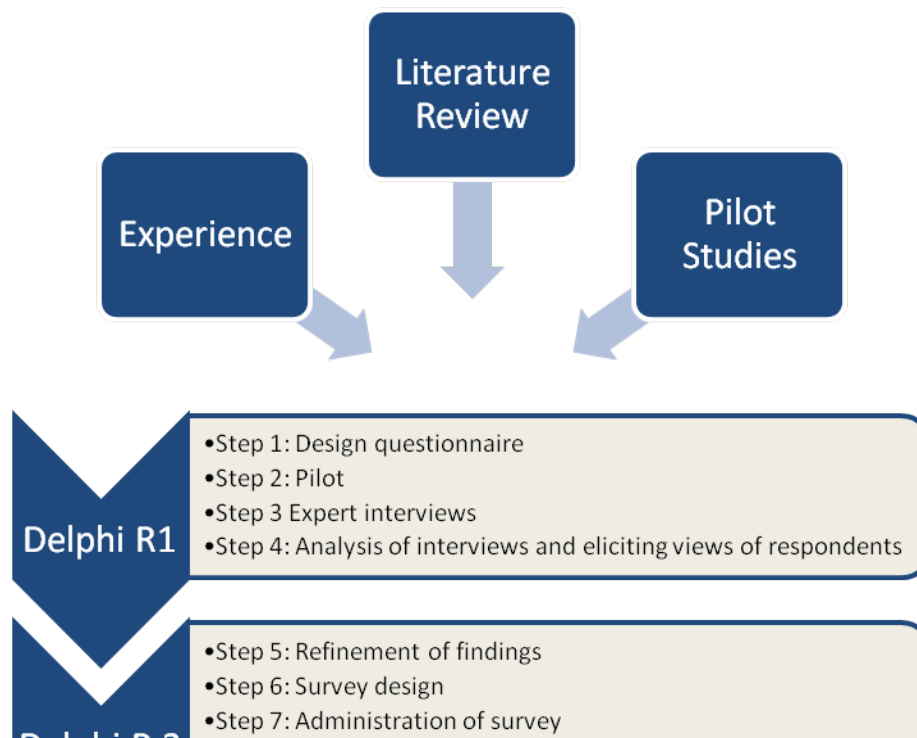
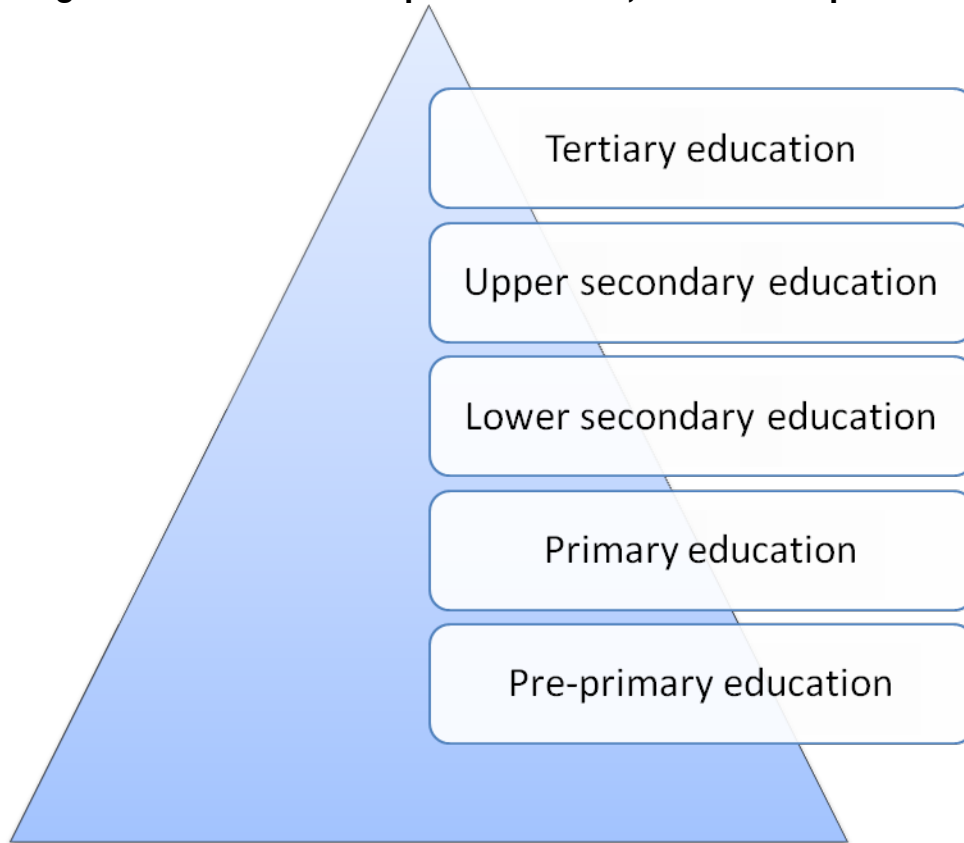




Figure 5. Reputational Score and Return on Equity



When we add the P/E (Price/Earnings) ratio in the mix we can infer that even though firms with better environmental image do have higher ROE the relationship is not directly proportional. A decrease in reputation does not result in an equally large drop in return on equity and conversely it requires a greater increase in image before it pays off financially (Fig. 6). An additional interesting finding is that the price earnings ratio does not move parallel to the ROE that is the best and worst performers seem to have similar P/Es. Since the P/E ratio, simply stated, expresses how much the investors are willing to pay for each dollar of revenue the company makes, from two companies with similarly low P/E ratios the one with the higher ROE, everything else being equal, is the better investment. Therefore, the finding seems to indicate that the market undervalues companies with better and overvalues them with worse environmental reputation.

**Figure 6. The Relationship between P/E, ROE and Reputation**

Utilizing a modified framework of the Boston Consulting Group (BCG) Matrix the companies can be divided into four groups based on their financial and environmental score in relation to the industry average (Fig. 7). In Quartile I are the 'lucky' ones, these are companies that enjoy better results despite their reputation. This result may reflect the fact that they are simply getting bad press, recovering from some earlier incident, or that they are not managing their media image effectively. In Quartile II the 'leaders' and in Quartile III the 'laggards' are the companies whose results reflect their reputations. It might seem like in Quartile IV firms are not getting deserved credit. However, it could also be that their reputation is perceived to be better than their actual environmental performance that is they are doing a good job of 'green' advertising.

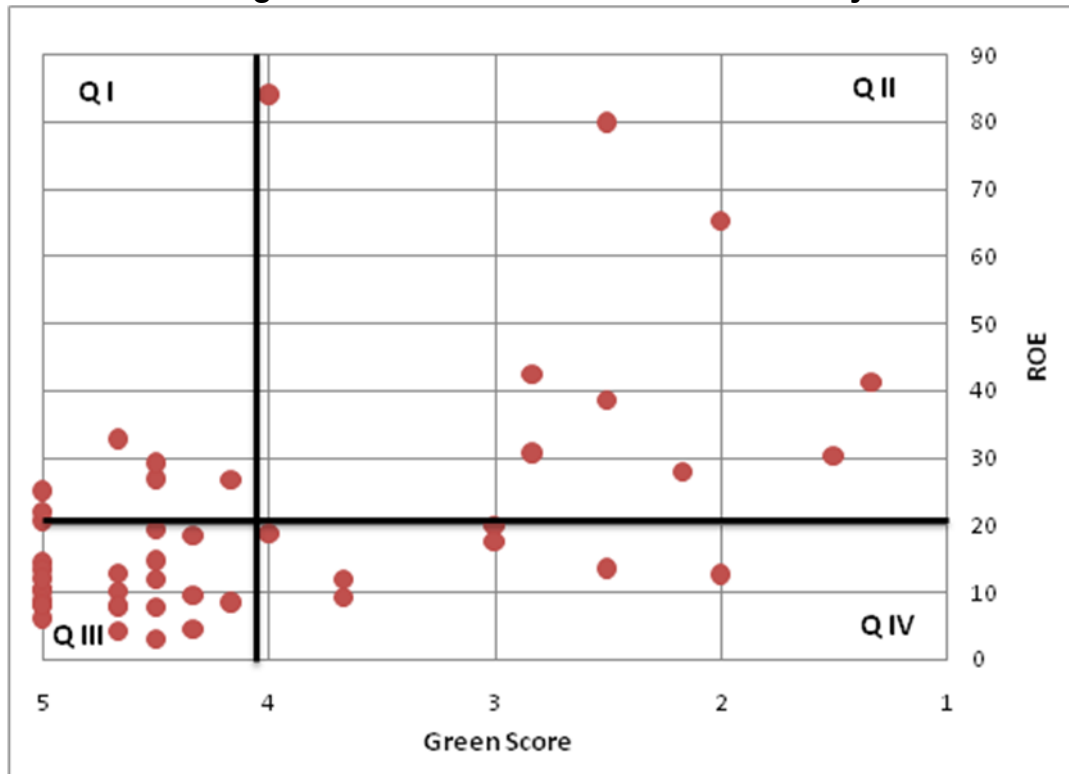
This would support the resource-based view of strategic management (see Barney 1986; Wernerfelt 1984) based on which a firm's superior ability to manage their resources, in this case environmental performance and reputation, compared to others in their industry could lead to higher returns.

## Conclusion

In recent decades advancements in information technology, the way people access facts about companies to aid them in their shopping and investment decisions coincided with shifting attitudes in society towards our planet and the environment. Companies have been playing a catch up game trying to integrate sustainability topics into their management decisions and marketing schemes. At the same time, monitoring systems have been becoming increasingly sophisticated, government requirements more stringent and consumers more savvy. What was enough to appease environmentally conscious stakeholders just a few years ago proves to be preciously little today. Socially

Responsible Investing has become big business (according to EUROSIF €7.6 trillion in 2010) as a consequence management decisions have an ever more significant financial impact and can result in reputational penalties that can take years to recover from. Food companies usually have substantial brand name equity hence they are more susceptible to public attacks. Food products are often also easily interchangeable. Bad reputation can lead to considerable loss of market share.

**Figure 7. BCG Matrix of The Food Industry**



As our findings indicate, it is not enough that companies employ environmentally sound production techniques, it is equally important that they pay special attention to their green marketing techniques. It is true that there is a direct relationship between more efficient use of resources and better financial results, but there is also an indirect benefit from publicising said efficiency and there is no reason why companies should not take advantage of this.

Since the food and beverage production industry has recently also found itself in the forefront of attention due to their role in resource consumption and their effect on people's consumption behaviour, it can safely be expected that their environmental stewardship will also be increasingly scrutinized. The reputation they will subsequently gain or lose will play an important role in their economic well being.

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## **Cost-of-capital of business units: Comparison of methodology in previous empirical research**

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### *Abstract*

*Cost-of-capital rates are used for a variety of applications in corporate finance such as value-based management or investment appraisal. While company cost-of-capital is regularly determined with the help of capital market data, proxy methods have to be used in the case of business units since no share price data is available.*

*The aim of this paper is to give a short introduction to the field of cost-of-capital of business units and to discuss and evaluate the methodology applied in previous literature.*

*In this paper, literature on cost-of-capital of business units is classified into categories first. Next, research designs applied by other researchers in the past are discussed. It is found that research questions concerning the development and evaluation of cost-of-capital estimation techniques are addressed with the help of large sample analysis of financial market data while research questions concerning the application of the techniques by practitioners are dealt with in survey or interview approaches.*

*It is concluded that there is no best method to conduct research on cost-of-capital, but that it might make sense to combine some of the methods in a mixed methods approach in future research projects in order to combine the advantages.*

### **Introduction**

Cost-of-capital is the required return on an investment, i.e. the minimum return that an investment in a company or a project should yield. It depends on the risk of the investment – the higher the risk, the higher the required return. Cost-of-capital of companies, which refers to the minimum return that an investment in the company should offer to the stockholders, is determined with the help of capital market models that use information from the company's stock returns on the financial markets.

The cost-of-capital of a business unit is needed for several purposes in managerial finance and accounting, for instance value-based management, performance benchmarking or investment decisions. The main areas of research in this field are how the cost-of-capital of business units can be determined and how practitioners apply the techniques. Unlike for the company group as a whole, there is no financial market data available so that special techniques have to be applied.

Over the last few years, the topic has gained additional importance in managerial finance and accounting, in part due to the following developments:

- As a result to increased organisational size and complexity, a growing divisionalisation can be observed. This requires more sophisticated performance management and control systems (Littkemann 2009, pp 3–4; Horváth 2006, p 541).
- Value-based management concepts are increasingly applied in company groups (Britzelmaier 2010, p 1; Kasperzak & Wassermann 2009, p 119).

The aim of this paper is to give a brief introduction to the topic and to compare previous empirical research in terms of the methodology that has been applied by the researchers. By pointing out the strengths and weaknesses of previously applied methodologies, it is intended to give guidance for future research in this field.

The paper is divided into three themes: First, a brief introduction to cost-of-capital of business units and the estimation techniques is given. Moreover, previous empirical literature is classified into two categories. Next, each research method that has been employed in the research of cost-of-capital is dealt with taking into account important papers from the field and the advantages and disadvantages of the respective research design. Finally, the results are summarised with the help of a literature matrix and a conclusion is drawn.

## Cost-of-capital of business units

### Fundamentals

Cost-of-capital is the required return on an investment. It depends on the risk of the investment (Emery, Finnerty & Stowe 2004, p 314), i.e. the higher the risk of an investment, the higher the required return. Cost-of-capital is expressed as a percentage. For instance cost-of-capital of 12% means that the investment should at least yield a return of 12% in order to compensate for the risk.

From the point of view of a company, cost-of-capital is the rate of return that it has to offer to compensate its investors (shareholders and bondholders) for the capital they provide (Brealey, Myers & Allen 2009, p 239; Arnold 2008, p 717; Emery, Finnerty & Stowe 2004, p 314). Due to an increasing global mobility and flexibility of capital, companies need to ensure that they offer the required return. This trend is reinforced by an increased professionalism of capital market actors (Steinle, Krummacker & Lehmann 2007, p 204; Pfister 2003, p 1).

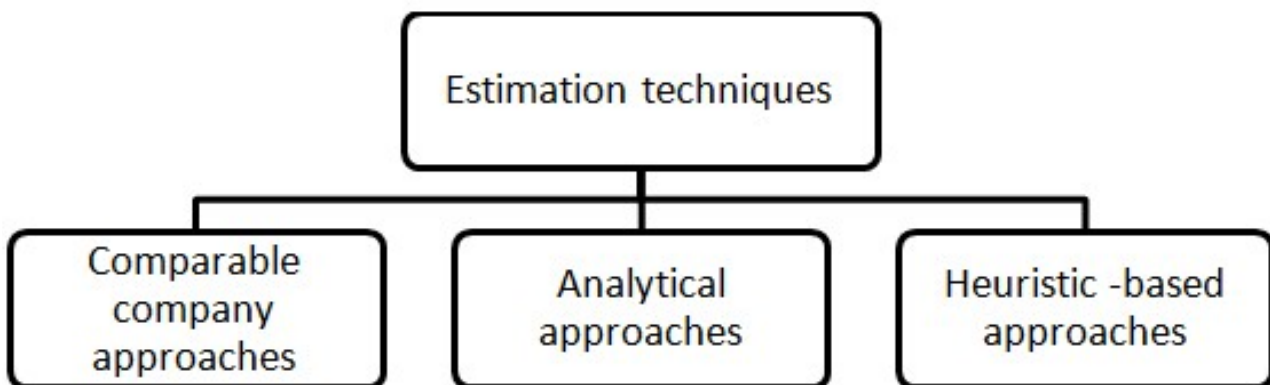
The company cost-of-capital is calculated as a weighted average cost-of-capital (WACC) of the required returns on equity and debt, weighted by their market values (Horváth 2006, p 485; Brealey, Myers & Allen 2009, p 241). In doing so, a long-term target capital structure should be used (Britzelmaier 2009, p 69; Matschke & Brösel 2007, p 666). The required return on debt is usually comparably easy to calculate as the interest is contractually agreed in contrast to the return on equity (Pfister 2003, p 263). For determining the cost of equity, the use of Lintner (1965) and Sharpe's (1964) Capital Asset Pricing Model (CAPM) prevails (Hoffjan 2009, p 138). An alternative model to the CAPM that is often discussed in literature is the Arbitrage Pricing Theory (APT) that has been developed by Ross (Ross 1976, p 341). However, the following discussions are based on the CAPM.

For business units and private companies, these models cannot be applied directly since they rely on financial market data to estimate certain variables. The main challenge in estimating the cost-of-capital for a business unit is that the capital market data required for a regular determination of the beta factor included in the CAPM are not available (Chua, Chang & Wu 2006, p 53; Ingram & Margetis 2010, p 161). Therefore, proxy methods have to be used to estimate betas of a business unit or the complete cost-of-capital rate (Cotner & Fletcher 2000, p 28).

## Estimation techniques

In literature, the techniques have often been classified as shown in the diagram below (Krotter 2009, p 174; Burger & Ulbrich 2005, p 551; Bufka, Kemper & Schiereck 2004, p 70).

**Figure 1: Techniques for the determination of business unit betas**



The basic idea of comparable company approaches is to use betas of listed companies that are comparable to the respective business unit as a surrogate for the beta of the business unit. The main problem of the comparable company approach is the selection of comparable companies (Chua, Chang & Wu 2006, p 53; Cummins & Phillips 2005, p 442; Bufka, Kemper & Schiereck 2004, p 70).

The determination of business unit cost-of-capital with analytical approaches is also based on the CAPM (Pfister 2003, p 133). However, it is not directly derived from share price movements. Instead fundamental factors – for instance accounting data – that are believed to influence share returns and thus systematic risk are used as a surrogate. The basic idea is that the fundamental factors are influenced by the same underlying events as the systematic risk (Jähnchen 2009, pp 83–84).

Besides the two ‘academic’ approaches, there are a number of heuristic-based approaches that have mainly been developed by practitioners. Probably, the best known approaches are the ones by Fuqua Industries (Gup & Norwood 1982) and Boston Consulting Group (Bufka, Kemper & Schiereck 2004, p 70).

## Classification of previous research

Previous empirical research on cost-of-capital of business units can be classified into two main categories in terms of research questions: Development and evaluation of the techniques and application of the techniques by practitioners.

Papers from the first category are concerned with empirically testing the techniques with the help of large sample analysis of financial market data. Usually, researchers focus on one of the three categories of techniques explained above.

Authors that deal with the second category conduct research on how the techniques are applied by practitioners in business firms. Many authors refer to a theory-practice gap (Bennouna, Meredith & Marchant 2010, p 234; Pfister 2003, p 4; Arnold & Hatzopoulos 2000) which means that the techniques are rarely applied by practitioners. The most common research design in this category is quantitative survey approaches. However, there are also authors that conduct interviews with company representatives.

## Methodology in previous empirical research

### Large sample analysis of financial data

Empirical research in Finance has traditionally focused on large sample analysis of secondary data such as stock returns or other financial data (Easterby-Smith, Thorpe & Jackson 2008, p 11; Serita 2008, p 99). Accounting and finance data can be acquired from large databases that are offered by several providers.

Large sample studies in cost-of-capital research are usually cross-sectional studies. Typical statistical methods that are applied to the data are simple regression (Fuller & Kerr 1981) and multiple regression (Bowman & Bush 2005; Chua, Chang & Wu 2006; 2004). The methods are applied in combination with both parametric statistical tests such as the Student's t-test to test the significant of individual factors in a multiple regression model (Ehrhardt & Bhagwat 1991; Bowman & Bush 2005), F-tests to compare the overall fit of different models (Bowman & Bush 2005) and two-tailed binomial tests (Ehrhardt & Bhagwat 1991) as well as non-parametric statistical tests such as the Wilcoxon rank sum test (Chua, Chang & Wu 2006).

As "true" betas of business units are not observable, empirical tests of the comparable company approach typically involve a comparison of observable company betas of listed companies with the respective proxy betas derived from comparable companies.

The first empirical test of pure play betas was conducted by Fuller and Kerr (1981) in the U.S. who matched the divisions of 60 multi-divisional companies with 142 pure plays using data from the years 1976, 1977 and 1978. The researchers used data from Value Line which is a commercial research and publishing firm that followed 1700 companies by the time of the analysis. Their methodology was to compare regularly observed betas of multi-divisional firms – i.e. the company beta calculated from capital market data with the CAPM – to the company beta aggregated from the business units' betas estimated with the help of the pure play technique. If there was more than one comparable company, the authors used the median. They then used simple linear regression analysis to check the relationship between the observed company betas and the proxy company betas calculated from the divisions' pure plays (Fuller & Kerr 1981, pp 1001–1002).

To evaluate the estimation accuracy of the proxy betas, other authors use different statistical methods. For instance Chua et al (2006, pp 57–58) use the mean square error of the estimates. In order to make sure that there is any useful information in the estimation techniques, they also compare the results against a "naive prediction" beta of



They use a Wilcoxon rank sum test on a pair-wise basis to test the statistical significance of the differences.

As mentioned above, analytical approaches are based on the idea that certain fundamental factors are correlated with beta and can be used as a surrogate. Consequently, research on analytical approaches focuses on searching relationships between fundamental factors and betan with the help of cross-sectional analysis. Typically, the studies use multivariate regression models with observable betas as the dependent variable and the fundamental factors as independent variables. There are an enormous number of such studies. Pfister (2003) provides a comprehensive list of studies. The table below shows some examples of studies and the fundamental factors they have tested.

**Table 1: Examples for empirical papers on the relationship of accounting variables with beta**

Author	Independent variables
Ball & Brown P. 1969	operating income
Beaver, Kettler & Scholes 1970	payout ratio, growth, leverage, liquidity, size, earnings variability, accounting beta
Bildersee 1975	financial leverage, liquidity, efficiency, coverage of fixed obligations
Steiner & Bauer 1992	profit variability, accounting beta, sales variability, sales beta, operating profit variability, operating profit beta, equity variability, return on equity beta, debt/equity ratio, financial leverage, machine intensity, operating leverage, dividend yield, balance sheet total, balance sheet total growth
Thompson 1976	dividend beta, earnings beta, earnings multiple beta, earnings yield beta, operating income, sales beta, total debt to total assets beta, cash flow to total debt beta, pretax interest coverage beta, current ratio beta, working capital to total assets beta, cash and receivables to expenditures for operations beta, dividend variance, earnings variance, earnings multiple variance, earnings yield variance, operating income variance, sales variance, total debt to total assets variance, cash flow to total debt variance, pretax interest coverage variance, current ratio variance, working capital to total assets variance, cash and receivables to expenditure for operations variance, dividend payout, growth in assets, growth in sales, growth in earnings, growth measures as mean of the factors, ratio of investments to earnings, return on investment, market volume, different means of annual ratios, size
Toms, Salama A. & Nguyen D. T. 2005	operating Leverage, financial leverage

Theory-based authors claim that empirical papers are “without theoretical justification” (Conine, JR 1982, p 199). Considering the large amount of financial data that is available in databases and the enormous computational power of contemporary

statistical software, it has to be kept in mind that some of the empirically shown relationships might just have occurred by chance or with the help of data mining or data snooping techniques. Brealy et al (2009, p 221) state in the context of research on stock investments that “if you look long and hard at past returns, you are bound to find some strategy that just by chance would have worked in the past”.

Heuristic-based approaches have not been subject to many empirical tests. The only one that the authors are aware of is the study by Bufka et al (2004). The authors empirically test the BCG method and the Fuqua industries method using data from 1997 of 87 German listed companies from the manufacturing sector and also capital-intensive firms from the service sector. The researchers apply the following methodology: To measure the criteria (risk factors) that are included in the BCG and the Fuqua industries method, they use data from a questionnaire survey. The consolidated risk measures from the survey are then used as an explanatory variable in four different regression equations. Beta and book-to-market ratio are used as dependent variables (Bufka, Kemper & Schiereck 2004, pp 72–73).

According to Serita (2008, p 100) the advantage of large sample analysis of financial data in general is that the data is relatively easy accessible which means that models can be tested with different datasets. In terms of databases, the articles discussed in this thesis usually only use one database. However, some authors – for instance Fuller and Kerr (Fuller & Kerr 1981) use data from several years for their analysis. Another advantage is the large sample sizes which provide high levels of confidence even if sophisticated econometric methods are used (Serita 2008, p 100).

One of the drawbacks of large sample analysis is that secondary data is used which might not be tailored to the specific research problem. This means that proxies that are available in the data might have to be used instead of the required measures. Furthermore, from the quantitative financial data no information about the reasons or motivations for decisions and actions is available (Serita 2008, p 100). Another problem is that there is a bias depending on which database is used. Lara et al (2006) conducted research on the effects of database choice on research results in accounting. They conducted a simple regression of book value of shareholders' equity and earnings against the market values of the companies over all firms of fourteen European countries covered in the respective database (Lara, Osma & de Noguera 2006, pp 435–436). The parameters differed substantially across the databases which the authors explain by the fact that the final sample size varies substantially between the databases (2006, p 449). Furthermore, the use of past data makes no consideration of the current and future dynamics of the industry and market sector. Finally, it can be criticised that the method relies on financial data which is often biased due to inherent problems in accounting information (Britzelmaier & Schlegel 2011) and market imperfections in stock market data (Brealey, Myers & Allen 2009, pp 363–367; Schlegel 2011, p 21). Due to the large amount of data available, there is a certain danger of finding patterns by chance or by data mining techniques (Brealey, Myers & Allen 2009, p 221) so that a deductive hypothesis testing and a sound theoretical foundation are crucial for a rigorous research.

## Survey approaches

To conduct research on the application of techniques by practitioners, internal information that is not published in financial statements of companies is needed. This is one of the reasons that survey data analysis has emerged as a relatively new method in corporate

finance research (Serita 2008). Although according to Serita (2008, p 98), the first survey study in the field of corporate finance was already published in 1956 by Lintner (1956) the method apparently has become more popular in corporate finance research in the last two decades. Since the 1990s, a number of survey studies on corporate finance topics have been published. However, for this paper only studies published in the year 2000 or later have been considered. The table below lists examples of survey studies that include questions on cost-of-capital.

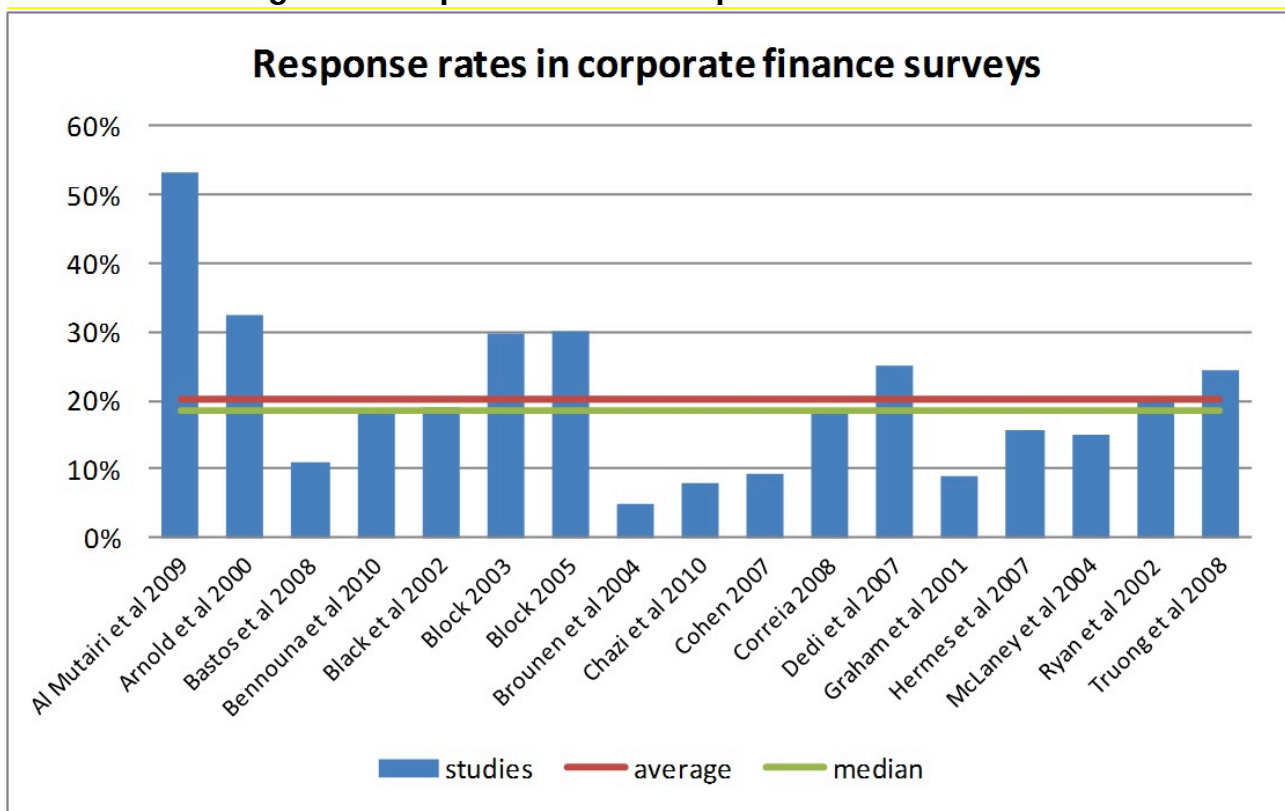
**Table 2: Survey studies included in the literature review**

Author	Year	Country
Al Mutairi, Tian & Tan	2009	KW
Arnold & Hatzopoulos	2000	UK
Bastos & Martins	2008	PT
Bennouna, Meredith & Marchant	2010	CA
Black et al.	2002	NZ
Block	2003	US
Block	2005	US
Brounen, de Jong & Koedijk	2004	DE, UK, NL, FR
Chazi, Terra & Zanella	2010	BH, KW, OM, SA, QA, AE
Cohen & Yagil	2007	DE, UK, JP, US, CA
Correia & Cramer	2008	ZA
Dedi & Orsag	2007	CR
Graham & Harvey	2001	US
Hermes, Smid & Yao	2007	NL, CN
McLaney et al.	2004	UK
Ryan & Ryan	2002	US
Truong, Partington & Peat	2008	AU

The main advantage of survey approaches is that they can produce new data that is unavailable from other sources (Serita 2008, p 100; Frank 2007, p 252). In contrast to large sample analysis, survey studies can also help discover reasons for financial decisions by directly asking financial executives (Serita 2008, pp 99–100). This is especially interesting in the case of cost-of-capital of business units because the methods might not be applicable in practice although they might be suitable from a scientific point of view. For instance, a main problem in comparable company approaches is to find peers (Chua, Chang & Wu 2006, p 52) which is a very individual problem for each of the companies. However, in order to conduct research on reasons for organisational behaviour, a qualitative interview approach might be even more suitable. An advantage of quantitative survey studies over qualitative interview studies is that they can produce statistically robust results.

On the other hand, the survey method is quite controversial in finance and accounting research and has been heavily criticised. One of the most common concerns is measurement errors as well as reliability and validity issues (van der Stede, Young & Chen 2008, p 445; Frank 2007, p 244). Another major problem is that it is difficult to get responses from executives at a senior level and that often inappropriate respondents might fill out the questionnaires (Frank 2007, p 250; Serita 2008, p 101). Even if adequate individuals can be accessed, the companies might not reveal their true motivations and details of their actions and decision. Instead, they might deliberately deliver false answers due to strategic, cost and legal considerations as well as agency problems. Therefore, there might be a bias toward “textbook answers” (Frank 2007, p 249; Serita 2008, p 101). Moreover, both Frank (2007, p 244) and Serita (2008, p 101) criticise that generalisations are made from a relatively low number of respondents as response rates tend to be relatively low. The response rates of the studies listed above can be seen in the chart below. The average response rate of the studies is about 20%. However, there are several studies with response rates below 10%. Thus, it appears that the criticism is justified also for the case of cost-of-capital studies.

**Figure 2: Response rates in corporate finance studies**



Despite the inherent weaknesses of the survey methods, Van der Stede et al (2008, p 445) argue that the problem is not the method per se but how well it is used. According to the researchers, many studies fail in applying fundamental rules of survey design and administration. Among the studies analysed for this paper it can also be observed that some appear to have a rather descriptive character instead of formulating hypotheses and rigorously testing them. In order to increase response rates, it might also make sense to focus on a specific country and industry and to work this sector more intensely by personally contacting the companies beforehand to ensure they are aware of the purpose of the questionnaire and to gain their commitment to the survey.

A positive example that shows that good results can be achieved with the survey method is the paper by Graham and Harvey (2001) which won the Jensen price for the best corporate finance paper published in the Journal of Financial Economics in 2001. Serita (2008, p 97) states that the remarkable thing about their research is “that they are more rigorous in testing hypotheses and explaining managers’ motives in financial decisions”. The survey was replicated by other authors in different countries, often complemented by additional questions (see table below).

**Table 4: Reproductions of the Graham & Harvey (2001) study**

Author	Additional questions
(Black et al. 2002)	n/a
(Brounen, de Jong & Koedijk 2004)	firm’s goals and stakeholders
(Chazi, Terra & Zanella 2010)	Islamic law
(Correia & Cramer 2008)	CAPM parameters

### Interview approaches

A minority of authors have conducted interviews to find out about the application of cost-of-capital estimation techniques by practitioners. Here, the methodology of two papers – Steinle et al (2007) and Petersen et al (2006) – is discussed.

In Germany, Steinle et al (2007) conducted research about the importance and determination of cost-of-capital of business units in the context of value-based management. They conducted expert interviews with seven companies from different industries that included both public and private companies. The expert interviews that they conducted had an exploratory character as a preparation of a theoretical comparison of the estimation techniques. Thus, they attempted to ensure that no important aspects were forgotten in the evaluation of the techniques. Consequently, the researchers applied theoretical sampling (non-probability sampling) which means that they chose a mix of companies from which they expected a broad range of different cost-of-capital practices (Steinle, Krummacker & Lehmann 2007, p 208). Their qualitative approach has the advantage that company-specific details can be found out which would not be possible with a structured, standardised survey approach. An example is the MCPM approach by Bayer that probably would not have been considered in a quantitative survey. Additionally, the qualitative approach has the advantage that it does not only describe the approaches of the companies but also the reasons why the companies behave in a certain way. The limitations of the methodology especially arise from the limited number of companies that were interviewed and the limited scope of the companies included.

Petersen et al (2006) interviewed 39 Danish Finance professionals, i.e. financial advisors and professionals from the private equity industry about the methods they use for the valuation of private companies. In the valuation of companies, cost-of-capital rates need to be determined as a discount rate. “Private” company in this context refers to companies that are not listed at a stock exchange (Petersen, Plenborg & Schøler 2006, p 46). The cost-of-capital determination in the valuation of private companies poses the same challenges and is done with the same techniques as in the case of business units. As a methodology, the researchers conduct semi-structured interviews which they refer to as a field study approach (Petersen, Plenborg & Schøler 2006, pp 34–35). The advantage

of semi-structured interviews is that they are conducted with the help of a list of themes and questions to be covered, but are also flexible enough to incorporate new aspects that arise in the course of the interview (Saunders, Lewis & Thornhill, p 320). Their approach has the advantage that they include both quantitative and qualitative elements. This allows on the one hand to produce statistically robust results (quantitative part) and on the other hand to find out reasons for certain behaviour and to increase data quality (qualitative part). By establishing personal contact, they reach a participation rate of over 85%.

A conclusion that can be drawn from interview based design approaches in cost of capital project is that they provide a deeper insight to explain the behaviour of organisations than survey approaches that tend to merely describe behaviour. Furthermore, they can include more unexpected details since it is possible for the interviewer to react to the answers. However, due to time and resource constraints in research it is probably not possible to achieve sample sizes as large as in survey approaches.

### Summary and conclusion

In this paper, different methodologies that are used in research on cost-of-capital of business units have been discussed. The matrix below classifies some important pieces of literature in the field in terms of research question and methodology.

**Figure 3: Literature matrix**

		Methodology			
		Large sample analysis	Survey	Interview	
Research question / Topic	Development and evaluation of techniques	Comparable company approach	Erhardt et al 1991, Ingram et al 2010, Chua et al 2006, Fuller et al 1981, Bowman et al 2006	x	x
		Analytical approaches	Ball et al 1969, Beaver et al 1970, Bildersee 1975, Thompson et al 1976, Toms et al 2005	x	x
		Heuristic-based approaches	Bufka et al 2004	x	x
	Application by practitioners	x	Al Mutairi et al 2009, Arnold et al 2000, Bastos et al 2008, Bennouna et al 2010, Black et al 2002, Block 2003, Block 2005, Brounen et al 2004, Chazi et al 2010, Cohen 2007, Correia 2008, Dedi et al 2007, Graham et al 2001, Hermes et al 2007, McLaney et al 2004, Ryan et al 2002, Truong et al 2008	Petersen et al 2006, Steinle et al 2007	

It can be seen that large sample analysis of financial data plays an important role in empirical Finance research, especially for the development and evaluation of techniques

for the determination of cost-of-capital of business units. When it comes to the question whether practitioners apply the techniques, internal data from companies has to be collected. Therefore, survey studies and expert interviews are used to conduct research on this sub-topic.

In this paper, the strengths and advantages of previous research designs in the field of cost-of-capital of business units have been discussed. Moreover, the importance of a rigorous implementation of the research methods has been pointed out. For future research, depending on the research objectives of a research project, it might make sense to combine several of the methods discussed above. Especially for research questions concerning the application of cost-of-capital by practitioners, it seems to make sense to apply a mixed methods design consisting of both qualitative interviews and a quantitative survey approach. Moreover, a conceptual model to explain the differences in the behaviour of the organisations could be developed.

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## Interaction and synergy of marketing management and quality management in Croatian companies

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### *Abstract*

*This paper studies marketing management and quality management as generally accepted business concepts of the present time as well as business processes in the context of examining their mutual relationship. It is attempted to find the potential synergy of these two concepts through the very analysis of their interaction.*

*Since it is necessary to apply a holistic approach in the modern way of doing business in market-oriented companies, for the purpose of research the most developed form of marketing management is selected – holistic marketing, while quality control is analysed through the prism of all of its eight basic principles.*

*The paper proposes synergic matrix of holistic marketing dimensions and quality management principles, which are being tested in Croatian companies with implemented quality management systems. Marketing managers evaluate the synergic potential of the interaction between holistic marketing and quality management, which proves the initial hypothesis of research.*

*The tested synergic matrix indicates considerable complementarity and compatibility of the observed processes and business approaches of marketing management and quality management, which should define appropriate guidelines for a more detailed analysis of their interaction.*

*Keywords: marketing management, holistic marketing, quality management, synergy, synergic matrix*

### Introduction on the process approach to marketing and quality management

In organisations with a certified quality management system there is a need as well as an obligation (according to the International Standard ISO 9001:2008) to define processes of all business activities in an organisation. Marketing management and quality management can be defined as processes apart from being an organisation's business concepts and philosophies.

A process is “ a set of activities preformed in order to achieve a specific result, e.g. a product” (Anić, Goldstein, 2007, p. 1053). In a similar manner it is defined by the International ISO Standard as “ a series of interconnected or dependent actions which transform inputs into outputs”<sup>8</sup>, while the process approach defines their establishing, interaction and management in the context of the process system within an organisation<sup>9</sup>. If a market-oriented organisation establishes and names processes in their business practice, they have surely identified the marketing process as well, which in this context has expanded its concept framework into the marketing management process.

If looking through a prism of the process approach, marketing management and quality management should form well-rounded unities that will create relevant value for their customers, by transforming their inputs into a desired product. As well as other business processes, marketing management process and quality management process consist of a set of logically connected phases or steps, i.e. activities that are performed successively in order to achieve previously defined process goals.

The process approach to marketing and quality is especially evident in process-oriented organisations, for example in organisations that have adopted the concept of quality management where one of the main principles is the process orientation in business practices. Such orientation is easier to supervise and can more readily be adapted to the turbulent and dynamic environment.

Following the dynamics of market changes, there is a more and more accepted point of view that “ an alternative marketing paradigm is necessary, the paradigm that is able to explain the permanent nature of relationships among all the participants...” (Sheth, Parvatiyar, 2000, p. 140), which can be found in the paradigm of marketing relationships as well as in the other dimensions of the holistic approach to marketing.

## Marketing management and the holistic concept of marketing

The marketing concept in its more developed forms appears as a concept of social marketing and more recently, as the most complex marketing paradigm – holistic marketing.

“The idea of holistic marketing is based on the development, design and implementation of marketing programmes, processes and activities which recognises their extensiveness and interdependency, in other words recognises the idea of everything is important in marketing” (Kotler, Keller, 2009, p. 19-20). A predisposition for such a marketing orientation, i.e. the holistic approach to marketing is realised when the orientation towards the customer permeates the whole organisation and when all the units are included in marketing activities.

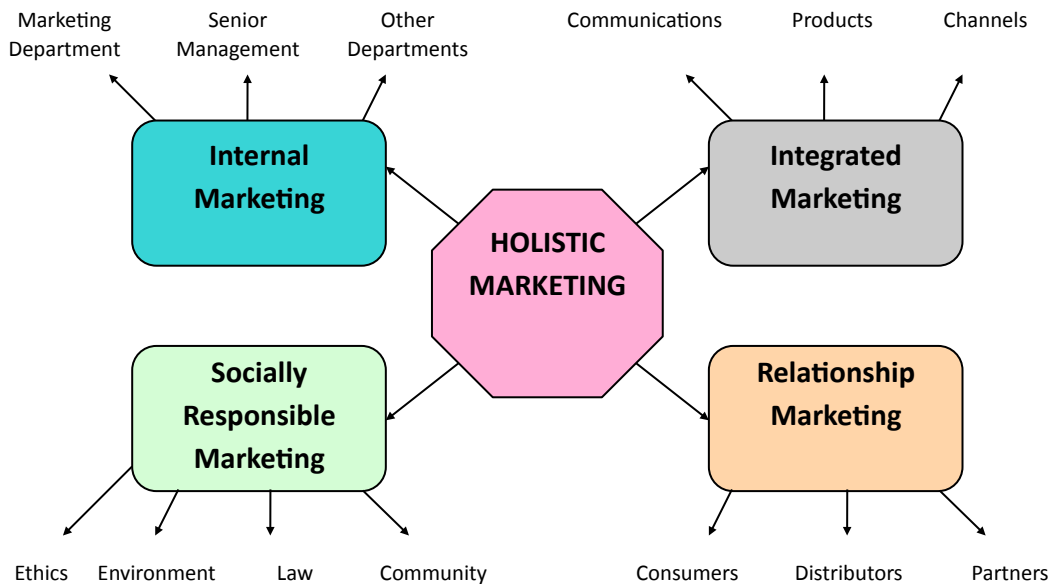
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<sup>8</sup> ISO 9000:2005, *Quality Management Systems – Fundamentals and Vocabulary*, International Organisation for Standardization, Geneva

<sup>9</sup> ISO 9000:2005, *Quality Management Systems – Fundamentals and Vocabulary*, International Organisation for Standardization, Geneva

According to the same authors, holistic marketing covers four dimensions: relationship marketing, integrated marketing, internal marketing and socially responsible marketing, which is shown in more detail in picture 1.

**Picture 1. Dimensions of holistic marketing**



Source: Kotler, P., Keller, K. L., Marketing Management, 12. edition., Mate, 2008, p. 18.

Further in the text each of the dimensions of holistic marketing is separately elaborated on.

## Relationship Marketing

The idea of relationship marketing was first introduced in marketing literature by academic Berry (1983) although Grönroos greatly contributed to the popularisation of the idea. He points out that the main purpose of relationship marketing is “to establish retain and strengthen relations (most commonly, but not exclusively, long-term relations) with consumers and other partners in marketing, making profit in such a way that goals and satisfaction of all those involved is achieved. This is accomplished through mutual exchange and keeping promises” (1990, p. 138).

In that sense it can be stated that relationship marketing is based on the main principle which is: the higher the level of consumer satisfaction with the relationship it has with a certain organisation and not only with the product, the higher the probability of customer retention (Payne, 2000, p. 1).

Many authors realise the importance of customer retention stating that it is evident in the strong connection between customer retention and increased organisation’s profitability (Reichheld, Sasser, 1990, p. 105-106; Reinartz, Kumar, 2000, p. 17; Rosenber, Czepiel, 1984, p. 45).

## Integrated marketing

The idea of holistic marketing includes the concept of integrated marketing based on the full integration of all marketing programmes in order to develop, convey and deliver the value for consumers. According to both Kotler and Keller, marketing programme consists of numerous decisions about the selection and implementation of marketing activities that increase customer value (2008, p. 19).

Consequently, the fundamental theses of integrated marketing are the coordination of all marketing activities in order to achieve a maximal synergic effect as well as the application of numerous marketing activities with the aim of communicating and delivering value to users. In other words, every marketing activity has to be carried out in such a way that it respects all the other activities that complement it. However, in a broader context, difficulties in the application of integrated marketing have been noticed, to be more specific, the integrating marketing function which, among other things, needs to be performed in collaboration with all other organisational units and they need to be provided with necessary information about the market. (Grönroos, 1994, str. 353-354).

## Internal marketing

A significant dimension of the holistic marketing concept is certainly internal marketing which demands the presence and acceptance of corresponding marketing principles in all business segments and in all structures of a business organisation. The essence of internal marketing is reflected in the presumption that the company, if it wants to be successful, necessarily has to realise the need of introducing and applying marketing according to its own human resources, that is, as Ozretić Došen points out, “the success of marketing towards consumers and/or users on the external market is greatly defined by the success of marketing on the internal market” (Previšić, Ozretić Došen, 2004, p. 555). In other words, the quality of marketing on the external market is the result of the effort of each individual employee and organisational unit of an organisation.

The idea of internal marketing has to be applied at the level of all marketing organisational units, e.g. advertising, public relations, market research and product management. However, its application refers to other sectors/departments such as sales, human resources, finances, which would have to adopt the idea of marketing as the general philosophy of business practice in their organisation.

## Socially responsible marketing

Holistic marketing covers the fourth component as well – the idea of socially responsible marketing, whose specifics are the continuous taking into consideration social acceptability, i.e. sustaining and/or increasing social well-being in general (Previšić, Ozretić Došen, 2004, p. 16).

The point of social responsibility of the above stated concept is reflected in ethical, legal, environmental and social aspect of marketing programmes and activities, which have nowadays become the imperative behaviour in dynamic market relations.

Connecting marketing, i.e. an organisation's marketing activities with general well-being opens the possibilities of building its image, raising consumer brand awareness, increasing consumer brand loyalty or strengthening an organisation's positive public image. Nowadays, in the world of growing pressure from numerous market institutions and consumer associations such as environment or consumer protection groups it is a necessity to take into consideration the demands of socially responsible marketing.

The process perception of all marketing management dimensions, i.e. holistic marketing is of significant importance in organisations that accept the process orientation in doing business or in other words, businesses that are certified according to ISO 9001:2008 standard.

## Quality management and fundamental principles of quality management

In the past two decades Croatian organisations have started to realise the benefits of accepting the correct attitude towards quality and quality management and applying it in their business practices (Budiselić, 2000; Bunjevac, 2002; Cvitković, 1996; Čulo, Dolaček, 2001; Drljača, 2002; Gaži-Pavelić, Buntak, 2008; Kondić, 2002; Lazibat, 2003). To be more specific, the need to ensure the recognised prerequisites for the implementation of such business orientation has been realized.

Ensuring the stated prerequisites implies the basic principles of quality management which are implemented in the International ISO 9001:2008 Standard. The universal application of these principles has enabled their integration into business practices of organisations with different activities.

Eight basic principles of quality management according to ISO 9001:2008<sup>10</sup> are as follows:

- Customer focus – all organisations regardless of their size and business activity greatly depend on their customers and consequently, they have to know their customers' present and future needs and desires, satisfy them and strive to exceed their expectations, as Keith predicted back in the 1960s that “the idea of the customer in the main role is here to stay” (1960, p. 38);
- Leadership – the main task of a leader is to create and maintain the internal environment in which all employees can become fully involved in achieving the organization's objectives. Successful leadership is reflected in establishing a clear vision of the organisation, respecting the needs of all interested parties, proactive approach and open communication, setting challenging goals and selecting appropriate strategies for achieving them;
- Involvement of employees - applying the principle of including the employees is reflected in their taking responsibility for the results of their tasks as well as the proactive approach to their personal development. It also implies their orientation toward creating added value for consumers, developing a sense of belonging to the organisation and achieving a sense of satisfaction with their own work;

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<sup>10</sup> The principles of quality management were first published by ISO Technical Committee ISO/TC 176/SC2/WG15 in May 1997 in the document *Principles of Quality Management*. The principles are integrated into standard ISO 9001:2000 and later into ISO 9001:2008.



- Process approach – desired business results are achieved more effectively if individual activities of transforming inputs into outputs as well as the related organisation's resources are managed as processes. In this way ISO 9001:2008 encourages the process approach in terms of development, implementation and improvement of quality management system as a prerequisite for meeting customer needs more efficiently and consequently enhancing their satisfaction;
- System approach to management – The principle of the system approach to management points out understanding the interaction between the individual business processes, which increases the organisation's effectiveness in achieving defined business objectives and implies managing interconnected processes as a system and understanding the interdependencies between the processes and the system (ISO 9001:2008, Guidelines for the system approach to quality management systems, pp. 8-9);
- Continual improvement – by accepting the orientation of quality management the organisation has made a long-term choice to apply the principle of continual improvement of its products, processes and the over-all business system;
- Factual approach to decision making – effective decision making is based on the appropriate analysis and interpretation of information, and in that sense it is necessary to ensure taking purposeful measurements and collecting reliable, accurate and relevant data and information;
- Mutually beneficial supplier relationships - the interdependency of an organisation and its suppliers points toward the need to build trust and mutually beneficial relationships, which enhances the ability of both to create value for customers. In other words, both the organisation and its suppliers need to encourage joint development of products as well as a clear and complete understanding of customer needs.

The main common goal of the eight above listed principles of quality management is to meet demands of all interested parties in a more reliable manner: customers, employees, the owner, business partners and the social community in general. However, a successful practical application of quality management principle has to be confirmed through an organization's business result (Drljača, 2005; Fadić, 2008).

All this points out the significance of these principles for the performance of an organisation with the implemented quality control system and the possibility of their broader application in the interaction of complementary business concepts, such as quality management and marketing management, i.e. holistic marketing.

### Interaction of marketing management and quality management (test results)

With the aim to analyse marketing management and quality management processes, the interaction of these processes, i.e. business concepts, was studied. As the concept of marketing management has been in constant development since the very beginning and has gone through several development forms, for the purpose of observing its interaction with quality management its most developed form has been chosen – holistic marketing.

The reason for this is the holistic approach to both business concepts as well as realising the key role of customers for an organisation's business performance.

For a clearer perception of the interaction between the concepts of quality management and holistic marketing a matrix of the two concepts has been designed observing their principles, i.e. dimensions (Table 1). As it can be seen in Table 1, both concepts are observed since ISO 9001:2008 obligates certified organizations to apply the stated principles in order to successfully sustain and improve their quality management systems. Consequently, the intensity of potential synergy between each individual principle of quality management and each marketing dimension is entered into the matrix (Table 1). It is assumed that in each dimension of holistic marketing there is a very high synergy with three or four principles of quality management, however, the existence of a higher or lower degree of synergy is assumed in the interaction with other principles as well.

With the aim of testing the assumed synergy between holistic marketing and quality management concepts a pilot-survey was conducted in May 2011 in 136 Croatian certified organisations selected from the group of large (over 250 employees) certified organisations according to the demands of ISO 9001:2008 standard. In this way the matrix testing focuses on a significantly smaller population, namely, on large certified organisations which have adopted and developed the holistic approach to marketing to a certain extent. Small and medium organisations were left out of the matrix pattern testing since it is assumed that the most developed form of marketing paradigm is not present in their business practice.

The respondents were marketing managers in the surveyed organisations who are most familiar with the marketing management process in their respective organisations. On the other hand, in organisations with a certified quality management system all process managers have to be familiar with the implemented quality management system, i.e. with the process in question. The test results of the synergy matrix are shown in Table 1.

**Table 1. Synergic matrix of quality management and holistic marketing concepts, according to test results**

Quality management principles	User / Customer focus (customer demands and satisfaction)	Leadership (positive work environment and successful communication)	Involvement of employees (team work, employee motivation)	Process approach (process management and process activities management)	System approach (interactivity of business processes, integrated concept)	Continual improvement (higher level of quality of organisation's products, processes)	Factual approach to decision-making (measuring effects)	Mutually beneficial relationships with external users (long-term cooperation)
Internal marketing	++++	++++	++++	++	++++	++++	++++	++
Integrated marketing	++++	++++	++++	++	++++	++++	++++	++++
Relationship marketing	++++	+++	+++	++	+++	++++	++++	++++
Socially responsible marketing	++++	+++	++++	+++	+++	++++	++++	++++

Legend: 0 no synergy    + very low synergy    ++ low synergy    +++ high synergy    ++++ very high synergy

Source: Diana Plantić Tadić, Marketing and Quality Management in the Function of Business Subjects Development in the Republic of Croatia, doctoral thesis, Faculty of Economics, University of Rijeka, 2011, p. 149.

Proceeding from the principle of quality management concept, the presented matrix shows that the highest synergy of all dimensions of holistic marketing is achieved precisely with the principles of continual improvements, factual approach to decision-making and customer focus. On the other hand, low or very low synergy with all marketing dimensions is assumed in the principle of process approach. In other words, there is vast space for growth of synergic potential through the implementation of the process approach in all segments of holistic marketing.

## Conclusion

According to the results of the conducted synergic matrix testing, it can be concluded that the respondents believe that there is very high synergy of the observed concepts and it is higher than previously assumed in almost all their principles and dimensions. Therefore, the assumed high synergy of quality management principle and holistic marketing dimensions has been confirmed. However, the assumed low synergy of the process approach principle in all marketing dimensions in which it is not applied to significant degree has also been confirmed. In the end, the observed "hidden" synergic potential gives direction to further improvements in the concept of holistic marketing dimensions as well as to further research in this field of organisations on the international market.

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## The Impact of Customer Relationship Marketing On Customers' Satisfaction for the Banking Industry in Jordan

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### *Abstract*

*The study aims to investigate the impact of customer relationship marketing (CRM) on costumers satisfaction for the banking industry in Jordan.*

*The study population includes customers of the banking industry in Jordan, who live in the capital governorate. A Survey method was used through using a self administrated questionnaire that was distributed over a convenience sample amounting (500) customers. (391) questionnaires have been returned back, and used for proper statistical analysis, this number represents (78.2%) of the total sample.*

*This study is one of several researches that will be conducted in different sectors in Jordan in the next few years in order to increase level of customer satisfaction in these sectors.*

*The study results indicated that that there an impact of using CRM on costumers satisfaction for the banking industry in Jordan. Also the study results indicated that customers are aware of customer relationship marketing strategies used by banking industry in Jordan. Also Fulfil Promises has the highest impact on costumers' satisfaction, then Empathy, then Commitment and finally Communications.*

*It was also found that the impact of customer relationship marketing (CRM) on costumers satisfaction differs according to Gender, Age, educational level and income.*

*Key words: relationship marketing (CRM), Banking industry, costumer satisfaction.*

### Introduction

According to (Grönroos ,1994,and Ndubisi,2007)establishing a relationship with the customer can be divided into two parts: attracting customers and building relationship with such customers in order to achieve the economic goals of that relationship. Relationship marketing best scenario involves a higher degree of satisfaction gained as soon as possible at the beginning of the relationship and continuity over time.

As suggested by Ndubisi, (2004; 2007) who found that there is a growing interest in relationship marketing subject. Firms' focus on strong firm-customer relationship is increasing gradually . Such focus and enhancement of building customer relationship has dual benefits for both firms and customers. Relationship marketing strategy is deemed very important in general and in particular for service industry regardless the main objective of business organizations either it is attracting or retaining customers.

Relationship is defined as "the process of attracting, maintaining and enhancing relationships with customers and other partners" (Grönroos (1994, p.355).

Customer relationship marketing is used in marketing research, for investigation the creation, development, and maintenance of committed, interactive, and profitable relationships with selected partners over time (Harker ,1999; Rababah, Mohd and Ibrahim, 2011).

Due to the importance of customer relationship marketing (CRM) in financial services in general and the banking industry in particular , this study was conducted in order to investigate the impact of customer relationship marketing (CRM) on costumers satisfaction for the banking industry in Jordan.

## Customer Relationship Marketing Definition

Several studies demonstrated that success of any service company depends on maintaining a long relationship with customers. The term "relationship" in marketing context is difficult to define . Morgan and Hunt, (1994) and (Izquierdo, Cillaín and Gutie ´rrez, 2005) indicated that relationship marketing includes "all activities directed towards the establishment, development and maintenance of exchange relationships". That leads to define the main dimensions of relationship marketing( Trust, Commitment , Social Bonding, Empathy, Promise Fulfillment and Communications)

## Dimensions of Relationship Marketing

Relationship marketing has the following key dimensions:

### 1. Trust

Grönroos (1990) and (Ndubisi,2007) indicated that "the resources of seller –personnel, technology and systems have to be used in such a manner that the customer’s trust in them, and thereby in the firm itself, is maintained and strengthened". A long term relationship is very important for the company to maintain its market share in the market . Therefore trust is a main element for this relation to succeed .

### 2. Commitment:

Commitment in marketing literature means keeping in touch with valued customers, providing timely and trustworthy information on service and service changes, and communicating proactively if a delivery problem occurs. (Ndubisi and Chan, 2005).

The concept of commitment in sociology is used to analyze both individual and organizational behavior and mark out forms of action characteristic of particular kinds of people or groups (Wong and Sohal, 2002) and(Ndubisi,2007) . Customer commitment can be described along four dimensions: (i) loyalty, (ii) Willingness to make short-term sacrifices, (iii) long-term orientation.(iv) willingness to invest in the relationship (Helfert and Ritter and Walter., 2011).

### 3. Social Bonding

The dimension of bonding consists of developing and enhancing consumer loyalty, which results directly in feelings of affection, a sense of belonging to the relationship, and indirectly in a sense of belonging to the organization (Sin et al., 2002).

#### 4. Empathy

Empathy is defined as " the capacity to recognize and, to some extent, share feelings (such as sadness or happiness) that are being experienced by another sentient or semi-sentient being". (<http://en.wikipedia.org/wiki/Empathy>)

#### 5. Promise Fulfillment

Promise fulfillment is a core construct in relationship marketing philosophy. It determines relationship continuation or termination. For example, if organization not fulfilled any promise it makes to the full satisfaction of the customer then the customer, may terminate this relationship.

#### 6. Communications

Seines (1998) confirms that communication is not only an important element in its own right, but also it influences levels of trust between buyer and seller. Sin et. al. (2002) asserts that communication fosters trust by assisting in solving disputes.

### Customer satisfaction

Customer satisfaction as a concept has been discussed in many theoretical and conceptual frameworks and models (Chan et al., 2003). Such models or frameworks had addressed customer satisfaction measurements drivers of customer satisfaction, and related variables measurements (Bruce, 1999). Customer satisfaction can be achieved through customer's experiences with a product /service when compared with expectations. Customer satisfaction has been defined as: "an overall feeling, or attitude, a person has about a product after it has been purchased" (Solomon, 1994; p. 346), or as "a summary, affective and variable intensity response centered on specific aspects of acquisition and/or consumption and which takes place at the precise moment when the individual evaluates the object" (Giese and Cote, 2000; p. 3).

### Previous Studies

Tony and Tracey (2007) study aimed to examine whether the relationship characteristics of length and duration, the customer demographic characteristics of age and gender and relationship attribute importance, as perceived by the customer, impact on the strength of the relationship between the customer and service provider. The study used a field survey were 287 questionnaire distributed over the customers of five service products. The sample was asked to assess the strength of the relationship between themselves and their supplier. The study found that there was relationship strength found to vary significantly between service products and individual customers, and the impact of duration of the relationship and the frequency of purchase on relationship strength depends greatly on the nature of the service product. It was also demonstrated that some customers want a closer relationship with service providers than other customers, and this aspect significantly affects the strength of relationship perceived by the customer.

Helgesen (2007) study aimed to identify the most influential drivers of customer satisfaction. The data source is a market survey. Items measuring customer satisfaction as well as importance and performance (satisfaction) of drivers of customer satisfaction have been included in a questionnaire answered by 128 customers from approximately 25 countries. The study found that prices have not been identified as satisfiers; however, according to the item-based importance-performance grid, competitive prices are



important and can perhaps be perceived as “hygiene”, focusing more on what is important for customer loyalty.

Leverin, and Liljander (2006) study aimed to investigate the relationship marketing strategy of a retail bank and examine whether customer relationships were strengthened through perceived improvements in the banking relationship and consequent loyalty towards the bank. The research used a survey on two profitability segments, of which the more profitable segment had been directly exposed to a customer oriented relationship strategy, whereas the less profitable segment had been subjected to more sales oriented marketing communications. The research concluded that there are no significant differences between the segments on customers' evaluations of the service relationship or their loyalty toward the bank. Moreover analysis revealed that relationship satisfaction was less important as a determinant of loyalty in the more profitable segment.

Ndubisi (2006) study aims to investigate the role of gender in the association of relationship marketing underpinnings (namely trust, commitment, communication, and conflict handling) with customer loyalty. Data for the research were collected through a survey of customers of banks in Malaysia. The results show that the four underpinnings of relationship marketing are directly associated with customer loyalty. Significant gender difference exists in the trust-loyalty relationship. Women are significantly more loyal than men at higher levels of trust in the bank. Gender does not moderate the relationship between commitment, communication, conflict handling and loyalty.

Lopez et al., (2006) study aimed at showing how relationship marketing has recognized the importance of building long-term relationships in increasing firms' profitability and guaranteeing their future viability. The study also aimed to contribute in this direction by introducing the heterogeneity of customers in their relationship characteristics (depth, length and breadth) into the analysis of customers' propensity to switch service providers. The study obtained the data from a panel survey (Home Online) of technology users in the United Kingdom, and the proposed hypotheses are tested on the fixed-line telephone sector using logistic regression. The research concluded that the length, depth and breadth of relationships help to determine customers' propensity to switch fixed-telephone suppliers. Customers who maintain along-lasting relationship with the firm (length), use the service more (depth), and invest in complementary services (breadth) will be less predisposed to switch.

## Problem definition

The research problem is to answer the following questions:

- 1- What are the attitudes toward CRM tools used the banking industry in Jordan?
- 2- What is the impact of using CRM on costumers' satisfaction for the banking industry in Jordan?

## Significance of Research

The research significance is also attributed to the followings:

- 1- It could form a base for further studies in the area in Jordan
- 2- It could contribute in explaining the CRM for those who are interested in this field.
- 3- It may provide Banks managers with the new trend in CRM that can be benefit for them.

- 4- It may provide a new point of view regarding the CRM in terms of determining the impact of using it on costumers satisfaction for the banking industry in Jordan.

## Research Objectives

The research aims to achieve the following objectives:

- 1.To find out the attitudes toward CRM tools used in the banking industry in Jordan.
- 2.To specify the impact of using CRM on costumers satisfaction for the banking industry in Jordan.

Hypothesis:

According to main objectives of the study, the researcher depended on two main hypotheses in order to achieve the objectives.

Following are the main two hypotheses:

In order to achieve first hypothesis, the researcher examined the first null hypothesis "there is no impact of using CRM on costumers satisfaction for the banking industry in Jordan".

To achieve the second hypothesis the researcher examined the second null hypothesis" there are no significant differences in the impact of customer relationship marketing (CRM) on costumers satisfaction according to Gender, Age, educational level and income"

## Methodology

The design of this research is descriptive and quantitative in nature.

The research was based in terms of designing a questionnaire which was addressed to those who deal with the banking industry in Jordan. Due to the fact that mail survey is not practical method in our area, since most of the respondents will not act promptly , the questionnaire was distributed by the researcher himself , in order to ensure that most of the sample complete the questionnaire and to explain some salient points if any.

## Population and Sampling

The study population includes customers of the banking industry in Jordan, who live in the capital governorate. A Survey method was used through using a self administrated questionnaire that was distributed over a convenience sample amounting (500) customers. (391) questionnaires have been returned back, and used for proper statistical analysis, this number represents (78.2%) of the total sample.

## Data collection method

There are two types of data collection, secondary data and primary data. Both primary and secondary data were used in this study,

## Secondary data

Secondary data include both quantitative and qualitative data and can be used in descriptive and explanatory as well. In this study Secondary data was collected from various resources such as: books, journals newspapers, and the internet. The main advantage of secondary data is saving time and money since it is much less expensive to use secondary data than to collect the same.

## Primary data

A questionnaire was used for collecting primary data from the targeted population:

## Questionnaire Design

A self-administration questionnaire was developed after reviewing the literature review and previous studies from various references, which deal with the research topic.

The questionnaire consists of two parts. The first part attempts to collect general information the second part consists of all questions related to the objectives and hypothesis of the research. The first set of questions is dealing with attitudes toward CRM. The second set of questions is dealing with measuring costumers satisfaction.

## Validity and Reliability

### Validity

The questionnaire has been evaluated by a panel of Jordan Universities instructors. Their remarks and comments were taken into consideration.

### Reliability

Cronbach Alpha coefficient was used to test research reliability.  $\alpha$  value was (0.902) which is deemed good because it is greater than accepted percent (0.60). (Malhotra, 2004)

## Data Analysis

Gathered data was coded and analyzed through using descriptive statistics. Multiple Regression was used to test the first hypothesis while 2 way ANOVA was used to test the second one.

## Characteristics of the Sample

Table (.1) shows the sample distribution according to demographic variables. Table indicates that the sample majority (53.5%) are males and (46.5%) are females. (33.2%) of the sample respondents their income is between \$ 1000 to \$ 1500. As far for educational levels, (233) respondents (59.6%) have the first university degree, (191) respondents (48.8%) are between 35-45 years old

**Table (1) Sample Distribution**

Variable	Frequency	%
<b>Gender:</b>		
Male	209	53.5
Female	182	46.5
<b>Age</b>		
Less than 25	89	22.8
25 to 35	52	13.3
35 to 45	191	48.8
45 +	59	15.1
<b>Education level:</b>		
High School Certificate	20	5.1
Bachelor Degree	233	59.6
Master Degree	97	24.8
Doctorate Degree	16	4.1
Other Professional Certificate	25	6.4
<b>Income (per month):</b>		
Less than \$ 500	71	18.2
\$ 500 to \$ 1000	75	19.2
\$ 1000 to \$ 1500	130	33.2
\$ 1500 to \$ 2000	66	16.9
\$ 2000 to \$ 2500	13	3.3
\$ 2500 +	36	9.2

Attitudes toward the following CRM tools:

**Table (2) Attitudes CRM tools**

No.	Questions	Mean	STD. Deviation
	First: Trust	3.5586	1.05092
1	The bank has high security to protect transactions	3.7903	1.22663
2	The bank provides quality service consistently	3.3657	1.25749
3	The bank meets its obligations towards its customers	3.7033	1.00459
4	You have confidence in the bank's services	3.5729	1.37903
5	The bank really takes care of your needs	3.3606	1.24257
	Second : Commitment	3.5555	.89509

6	The bank makes adjustments to suit your needs.	3.1739	1.27317
7	The bank is flexible in serving your needs	3.4706	1.01705
8	The bank offers personalized services to meet your needs	3.6061	.92452
9	The bank is flexible when its services are changed	3.9335	1.03313
10	You feel involved with your bank	3.5934	.92313
	Third : Communications	3.0772	1.02405
11	The bank provides you with full information when there is new service/product	2.9284	1.36438
12	Your bank provides timely and trustworthy information	2.9642	1.22736
13	Your bank provides you with new information in a specified time	3.2430	.98958
14	Information provided by the bank is always accurate	3.1867	1.02203
15	Your bank provides you with adequate information	3.0639	1.24797
	Fourth : Empathy	3.3647	.97164
16	Bank's employees understand your desire	2.8619	1.32485
17	Bank's employees give you personal attention	3.4118	1.08451
18	Your bank tries to help you to achieve your goals	3.5269	1.16076
19	You trust that your bank you protects your privacy	3.5448	1.20572
20	The bank is always willing to help you	3.4783	1.08316
	Fifth : Social Bonding	3.2604	1.03142
21	Bank's employees show respect to customers	3.6394	1.26911
22	The bank tries to create a close relationship with you	3.7775	.90531
23	You create friendships with bank's employee(s)	2.9105	1.39032
24	There is a personal link between you and bank's employee	2.9463	1.40135
25	You feel that you belong to the bank	3.0281	1.42027
	Sixth : Fulfill Promises	3.2645	1.23660
26	The bank fulfils its promises	3.2634	1.45344
27	Your bank respects its responsibilities towards you	3.2404	1.18905
28	The bank fulfils promises timely	3.6931	1.53854
29	Your bank respects its promises	3.1841	1.42931
30	The bank fulfils promises according to your expectation	2.9412	1.41571

It was found that there are negative attitudes toward q(11,12,16,23,24,30) because their means are less than mean of the scale (3) where as there are positive attitudes toward the rest of questions mentioned in table (2) because their means are above mean of the scale (3).

Customers' Satisfaction:

**Table (3) customers' satisfaction**

satisfaction	Mean	S T D . Deviation
31-You are satisfied with the quality of the Bank's services	2.7698	1.54030
32-You are satisfied with the Bank's level of service	3.0818	1.42809
33-You are satisfied with the interactions you experience with the Bank	3.8798	1.09234
34-You trust that the Bank always informs you with new services/products	3.5780	1.28040
35-You will never switch to other bank	3.6368	1.20515

It was found that there are negative attitudes toward q(31) because its mean is less than mean of the scale (3) where as there are positive attitudes toward the rest of questions mentioned in table (3) because their means are above mean of the scale (3).

## Hypothesis Testing

The first null hypothesis "there is no impact of using CRM on costumers satisfaction for the banking industry in Jordan"

**Table (4) - Test of hypothesis (1)**

F calculated	F Sig	R
246.405	000**	0.891

\*\* Significant at (0.01) level

Linear Regression was used to test our hypothesis and we found that (calculated F = 246.405) is significant at (0.01) level. So we will reject Ho and accept Ha. So that there is an impact of using CRM on costumers satisfaction for the banking industry in Jordan . And this impact is high because Pearson Correlation is 89.1%.

Also stepwise regression was used to determine the most tool that explains the variability of the dependent variable and it was found that Fulfill Promises has the highest impact on costumers' satisfaction, then Empathy, then Commitment and finally Communications.

The second null hypothesis " there are no significant differences in the impact of customer relationship marketing (CRM) on costumers satisfaction according to Gender, Age, educational level and income"

**Table (5) - Test of hypothesis (2)**

Variable	F calculated	F Sig
Gender	11.90	000**
Age	28.335	000**
Educational level	34.934	000**
Income	51.854	000**

\*\* Significant at (0.01) level

2 way ANOVA was used to test above hypothesis and it was found that Calculated F values are significant at (0.01) level. So we will reject Ho and accept Ha. So that, there are significant differences in the impact of customer relationship marketing (CRM) on costumers satisfaction according to Gender, Age, educational level and income.

The impact tends to increase in the female sample, Less than 25 years old sample, Master Degree sample and sample that got income between \$ 1000 to \$ 1500.

### Multicolleniariry test

Pearson correlation matrix was used and It was found that the highest correlation is between variables (Empathy and Social Bonding)  $R = 0.858$ , and by using VIF (variance inflationary factor) it was found that:

$$SCORE_{i,t} = \phi + \sum_{j=1}^k \alpha_j EXPOS_{i,t} + \sum_{j=1}^k \beta_j EFF_{i,t}$$

$$+ \sum_{j=1}^k \gamma_j ECON_{i,t} + \sum_{j=1}^k \lambda_j WEA_{i,t}$$

$$= 3.718$$

VIF < 5 there is no multicolleniariry which means that the model used in this research is correct.

### Conclusions

Upon the above analysis the following results are concluded:

1. There an impact of using CRM on costumers' satisfaction for the banking industry in Jordan.
2. The study results indicated that customers are aware of customer relationship marketing strategies used by banking industry in Jordan.
3. Fulfill Promises has the highest impact on costumers' satisfaction, then Empathy, then Commitment and finally Communications.
4. It was also found that the impact of customer relationship marketing (CRM) on costumers satisfaction differs according to Gender, Age, educational level and income.
5. The impact tends to increase in the female sample, Less than 25 years old sample, Master Degree sample and sample that got income between \$ 1000 to \$ 1500.

### Recommendations

1. Providing training programs in this field for Jordanian banks marketing staff along with establishing CRM course at Jordan universities in to improve the know-how of the people in this regard.
2. The bank has to conduct periodical market research needed to see if there are any changes on customers' needs, demands, and expectations.
3. A customer oriented culture, at the bank should be adopted by all bank's employees, also a follow up system to all issues relate to bank's customers should be improved with maintaining high level of confidentiality to customers' information.
4. In addition, there is a general need for more research on relationship marketing strategies and their actual effects on customer satisfaction. Future research should extend the measurements of relationship marketing and customer satisfaction in other services other than banking industry in other markets and other countries.

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(<http://en.wikipedia.org/wiki/Empathy>)

## Fashion Design and Visual Merchandising attributes in E-commerce

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### *Abstract*

*Today, the design and development of fashion collections taking into account new forms of marketing, when it is not possible to touch or try the garments requires a previous reflection and appropriate methodologies for the whole process from design to sale.*

*As for the buying online, the e-commerce is defined as being the modern methodology that comprehend the needs of organizations, salesman and consumers to cut costs while the quality of the products and services rises, the time of delivery falls, the combination of communications, business and marketing strategies simplify the exchange of information, products and services (Kalakota and Whinston, 1996).*

*The aim of this investigation work is to analyse the e-commerce of fashion products, and identify a set of attributes required for the development of fashion design collections and the visual merchandising for fashion brands. In the search for answers it has been made a questionnaire with closed answers, followed by the data collection from 380 valid responses.*

*It was concluded that there are a set of attributes in fashion design collections and visual merchandising of e-commerce that the consumer considers as important in group of attributes studied. Also, the social causes of the brands are mentioned as important nowadays and the diversity of products and the possibility to try them is still a limitation for online purchase of certain products of fashion.*

*Keywords: Fashion Design, Visual Merchandising, E-commerce*

### Introduction

The consumer buying behaviour of fashion products is influenced by different factors. One of them is the visual merchandising of physical and virtual shops. The e-commerce of fashion products grow every year, and represents today about ten per cent of total business in fashion (Journal du Textile, 2012).

The visual merchandising nowadays is the main element in the environment and space available on website, including its presentation, design and image, models, props and materials, lighting, graphic design and information (Diamond and Diamond, 2003), being defined as the encompassing of the various elements of marketing of a product or products, in terms of its importance, being a form of direct communication with the target of a particular product or brand (Arriaga, 2005) and according to Pereira et al. (2010) the merchandising is an approach able to endow a brand with its profile and represents the most direct means of communication to the product target. The visual merchandising influences as much the visual aspect of the website as its marketing, both in terms of products such as advertising, with the goal of improving the image of the website and encreasing sales emerging as the key to the presentation of the brand and its products in order to attract potential buyers (Häubli and Trifts, 2000; Diamond and Diamond, 2003; Khakimdjanova and Park, 2005).

For the market, Eroglu et al. (2003), Menon and Kahn (2002) and Park (2002), shows that the characteristics of the websites can affect consumer behaviour and attitudes on the purchase, even if the features are the brand's mission or environmental interests, as well as the brand's history. As for the product, the purchase decision relates mainly to the fact that it cannot meet the expectations of the buyer, and this problem is what the visual merchandising intends to fill, showing all the characteristics of the product. In websites of fashion products it can be more critical to present and sell fashion products than on websites that sell other types of products, because these are articles that need to be touched and experienced, and their quality can only be fully determined after purchase. Without the ability to try the product, the buying risk increases, whereas in the retail market consumers have the opportunity to examine the fashion products visually and physically (Kim and Lennon, 2000).

An online consumer can only base is knowledge on visual information, descriptions or images of the product and when buying, a lot of consumers still tend to look the garment physically in a store and then, make the purchase online or vice versa demonstrating that the multiple channels that brands have to sell interacting between them is still being one of the most significant factors to increase profits (Poloian, 2003).

As for the incentive to purchase, the very website itself may tell us what the most important elements are. Character, colour, environment and manoeuvrability are important to attract the customer and, in this context, the customer can become more interested in the website and as an interested customer the chances of purchasing enhances and he will also be more assiduous at each visit. The characteristics of visual merchandising that influence the perception of the consumer are various, from the colour to enlightenment, through the materials, presentation of products, the route set to visit the website. And a good description of the functional characteristics of the product and a good visualization of the product turns out to encourage the customer to return (Swinyard and Smith, 2003). In the online context Then and DeLong (1999) suggest that the visual aspects such as variety of images and different viewing angles of the product may generate increased sales, or, view the products in various combinations can help consumers to imagine how a product would be when dressed (Allen, 1999; Park and Stoel, 2002; Ha et al., 2007). Suggestions for combination of products are also a good way to persuade the customer to buy one or more products, and suggestions of coordination of parts previously thought (Allen, 2000; Then and DeLong, 1999) and the ability to mix and coordinate different parts to each other, also affects the visitor and get him to remain on site longer than what he had planned (Fiore and Jin, 2003). Mitchell (2001) also suggests that sites visually

attractive and well stylized reduce the perceived risk by consumers related to the purchase as well as the possibility to have various forms of visualization as larger images, the image side and back and the possibility of zoom in the image.

As for the overall of the website, the most important characteristics are the design and the music. Music is a feature that may give the website a strong image and personality. However when it is applied properly, otherwise, it can destroy the reputation of the whole brand (Price-Rankin, 2004). In the design, the initial image of an e-commerce site according to Liu (2009) is quite important, since the image and message of the brand itself is what will be in question, immediately giving retrospective information on the type of products that will be available, as well as other information.

Another factors (age, gender, country, education, etc.) affect also the decision to buy clothes (Kwon et al., 1991, Vignali and Vignali, 2010; Susana et al. 2010). So, to better understand the reality of the online commerce of fashion products and what are the attributes required for the development of products, suitable for online visual merchandising, eight questions were placed:

Question one): What is the main purpose of the visit of the consumer to e-commerce websites?

Question two): What kind of visual introduction is preferred by consumers in an e-commerce website?

Question three): How the consumer considers the ability to know what the environmental and social concerns of the brand are?

Question four): What are the consumer preferences in terms of the attributes on a fashion website? Is different according to gender?

To answer the question four was placed the following hypothesis:

Hypothesis one): There are significant differences between men and women in the preference of the attributes on the fashion websites at the e-commerce.

Question five): The ability to try, depending on the type of fashion product, has an influence on online shopping? Is different according to gender?

To answer the question four was placed the following hypothesis:

Hypothesis two): There are significant differences between men and women in the fact of want to try a particular product before buying.

Question six): How the consumer considers the possibility of having a wide range of views of the products?

Question seven): What kind of presentation of the product is preferred by the consumer?

Question eight): What is the importance that the consumer gives to the information about the characteristics of the product?

## Sampling, data collection and statistic

To obtain answers to the questions posed it was made a questionnaire with closed questions, with the possibility of response by a scale, for the subsequent collection and

analysis of data of 380 responses using the program PASW Statistics 18. For this we used the T Student test and the Kruskal-Wallis test when there were no assumptions of normality and homogeneity on the results or the variance.

In statistical terms, we used two types of scales. The Lickert scale, that includes a sliding scale or a grid scale which has only two possible answers (Malhotra, 2004).

The distribution was done through e-mail, randomly attaching the address of the housing of the survey and an introductory text indicating the research objectives and the purpose for which were intended the results, using the technique of snowball sampling. To select a representative sample the only criterion applied was that the respondent had Internet access, since the questionnaire was distributed only online.

## Results and discussion

As for the characterization of the sample, it was found that most respondents are female (sixty five per cent) of which the male represents about a third of respondents (thirty five per cent). Sixty per cent are aged between twenty three and twenty nine years followed by the ages between eighteen and twenty two with a value of seventeen per cent. The remaining corresponds to percentages lower than ten per cent. Most respondents have a higher education degree (fifty per cent), and the number of respondents with an MBA, Masters or PhD (twenty three per cent) is very close to the number of respondents with primary or secondary education (twenty per cent). With regard to residence, (sixty five per cent) live in cities and thirty five per cent in villages.

## Objectives of the visit for a consumer to an e-commerce website

To understand the consumer's objective when visiting an e-commerce website, the question one was raised. It was found that the main purpose of the visit to an e-commerce website is to see what's new and check trends and the demand for information on fashion products and demand for addresses of stores also obtained great importance. As regards the purchase of products that is not the main purpose of the visit, with a much lower average compared to other options (table one).

**Table one - Means of the objectives of the consumer when visiting an e-commerce website**

	Mean	Standard Deviation
Check current trends	4,90	2,024
Making the purchase of a product	2,94	1,869
See the new products	5,17	1,853
Find addresses of stores that have the product i want	4,45	2,011
Find information on fashion products	4,75	1,801

## Visual introduction preferred by the consumer

To understand what visual introduction to a website is preferred by the consumer has been made the question two. Of the visual Introductions proposed, was considered that

the preferred option for the consumer is to be routed directly to the site with all the options on the main screen (by colour, product, size, etc.) The previous option is closely followed by the introduction with news and notes and there is also a strong preference in the direct entrance to the website. The introduction of less interest was found to be the introduction with video (Table two).

**Table two - Mean of visual introductions of a website preferred by the e-commerce consumer**

	Mean	Standard Deviation
Getting started with video	4,18	2,091
Getting started with images	4,77	1,983
Directly to the website	5,48	1,528
Directly to the site with all the choices on the main screen (by colour, product, size, etc..)	5,84	1,282
New products	5,73	1,404
Brand concept	4,64	1,836

### Environmental concerns of the consumer

In order to obtain an indication of more specific environmental concerns of the consumer was made the question three in which it appears that for most consumers there is a need to obtain information about the environmental concerns of the brand. There are eighty four per cent consumers interested; however, sixteen per cent don't have any kind of concerns for the share of information, from the brand.

### Attributes preferred for e-commerce websites of fashion products

To understand whether there are significant differences between male and female preference of attributes on fashion websites, the question four was raised and it was placed the hypothesis one, tested using the t-student test.

The results obtained found three differences in the evaluation of the attributes of the website. They are the possibility of coordination of different clothing parts, the website advice on opportunities for coordination with other pieces, accessories and shoes; the ability to view videos of the collections and connection to social networks. In these three attributes the importance given by the woman was always lower and different than the one given by man (Table three).

**Table three – Mean of preferences in attributes on the e-commerce website of fashion (\* with significant differences in t-Test)**

		Mean	Standard Deviation
Variety of pieces	Man	5,80	1,543
	Woman	5,63	1,456
Multiplicity of styles	Man	5,80	1,476
	Woman	5,61	1,444
The environment / character	Man	4,75	1,910
	Woman	4,82	1,551
The music	Man	3,48	1,858
	Woman	3,59	1,644
The easy accessibility to various areas and applications of e-commerce website	Man	4,90	1,500
	Woman	5,14	1,475
Ability to coordinate different pieces	Man	4,54*	1,963
	Woman	5,18*	1,629
Customization of pieces	Man	4,76	1,840
	Woman	5,04	1,581
Have website advice about possibilities for coordination with other parts, accessories or footwear	Man	4,24*	2,003
	Woman	5,12*	1,603
Connection to social networks	Man	3,69*	2,161
	Woman	3,29*	1,620
View videos from the collections	Man	4,03*	1,929
	Woman	4,60*	1,528

In short, it is not rejected the hypothesis "there are significant differences between men and women in the preference of the attributes on the fashion websites at the e-commerce" for the attributes: ability to coordinate different pieces, take advice on the site for possibilities for coordination with other parts, accessories and footwear; viewing videos from the collections and connection to social networks (table four).

**Table four – Results of t-Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Variety of pieces	EVA	,021	,885	,969	314	,333
	EVNA			,956	240,574	,340
Multiplicity of styles	EVA	1,246	,265	1,112	314	,267
	EVNA			1,107	247,472	,270
The environment / character	EVA	3,095	,080	-,331	306	,741

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Variety of pieces	EVA	,021	,885	,969	314	,333
	EVNA			,956	240,574	,340
Multiplicity of styles	EVA	1,246	,265	1,112	314	,267
	EVNA			-,313	194,714	,754
The music	EVA	8,677	,003	-,539	310	,590
	EVNA			-,523	218,646	,602
The easy accessibility to various areas and applications of e-commerce website	EVA	1,164	,281	-1,417	310	,158
	EVNA			-1,411	238,207	,160
Ability to coordinate different pieces	EVA	9,213	,003	-3,112	306	,002
	EVNA			-2,959	198,053	,003*
Customization of pieces	EVA	6,769	,010	-1,432	310	,153
	EVNA			-1,378	213,493	,170
Have website advice about possibilities for coordination with other parts, accessories or footwear	EVA	8,962	,003	-4,269	310	,000
	EVNA			-4,035	201,644	,000*
Connection to social networks	EVA	24,924	,000	1,875	310	,062
	EVNA			1,744	191,775	,083**
View videos from the collections	EVA	10,233	,002	-2,867	306	,004
	EVNA			-2,709	201,305	,007*

\*To a significant level of significance of five per cent; \*\*To a significant level of significance of ten per cent

EVA - Equal variances assumed; EVNA - Equal variances not assumed

## Products that the consumer considers the most important to try prior to the acquisition

To understand whether there are significant differences between male and female preference for products that consumers consider to be most important to try before



purchasing the question five was raised and it was placed the hypothesis two, tested using the t-student test.

For shirts, t-shirt and sweater it appears that the importance of trying the product is higher for men, but for the beach clothes, the woman had the greater concern to try this type of product. In the remaining products there was a higher index of importance in any of them for the fact that there is a need to try the product, especially for jeans (Table five).

**Table five - Means of products that consumer consider being most important to try before purchase (\* with significant differences in t-Test)**

		Mean	Standard Deviation
Classic pants	Man	5,37*	2,177
	Woman	5,82*	1,654
Jeans	Man	6,17	1,321
	Woman	6,39	1,178
Jacket	Man	5,80*	1,627
	Woman	5,43*	1,620
Footwear	Man	5,90	1,497
	Woman	5,63	1,642
Shirt	Man	5,86*	1,462
	Woman	5,43*	1,595
T-Shirt	Man	5,43*	1,613
	Woman	4,40*	1,775
Sweater	Man	5,59*	1,433
	Woman	4,53*	1,741
Beach clothing (shorts, bikinis, bathing suit)	Man	5,55*	1,761
	Woman	6,06*	1,483

In short it is not rejected the hypothesis, "there are significant differences between men and women in the fact of want to try a particular product before buying", for six types of garments: classic pants, jacket, shirt, t-shirt, sweater and beach clothes (Table six).

**Table six – Results of t-Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Classic pants	EVA	14,484	,000	-2,075	314	,039
	EVNA			-1,945	202,542	,053**
Jeans	EVA	3,444	,064	-1,491	310	,137
	EVNA			-1,448	220,018	,149
Jacket	EVA	1,887	,170	1,974	314	,049
	EVNA			1,972	250,882	,050*
Footwear	EVA	2,626	,106	1,452	314	,148
	EVNA			1,484	269,528	,139
Shirt	EVA	1,525	,218	2,392	310	,017*
	EVNA			2,446	258,437	,015
T-Shirt	EVA	,897	,344	5,139	306	,000*
	EVNA			5,249	271,075	,000
Sweater	EVA	3,964	,047	5,476	302	,000
	EVNA			5,733	278,040	,000*
Beach clothing (shorts, bikinis, bathing suit)	EVA	14,567	,000	-2,720	302	,007
	EVNA			-2,612	212,606	,010*

\*To a significant level of significance of five per cent; \*\*To a significant level of significance of ten per cent

EVA - Equal variances assumed; EVNA - Equal variances not assumed

Visualization that the consumer considers to be most beneficial for the presentation of the product

To the question six was tried to identify which forms of visualization the consumer considers to be most beneficial to the product presentation. The ability to zoom in on the image alongside with the viewing at different angles, were considered the most important factors followed closely by the variety of images (Table seven).

**Table seven - Means of ways to view that the consumer considers to be most beneficial to the product presentation**

	Mean	Standard Deviation
Variety of images	6,31	1,110
View from different angles	6,46	,931
Ability to zoom in on image	6,47	,972

Product presentation preferred by the consumer

The question seven was made to identify what types of presentation of the product were preferred by the consumer. The average values obtained lead to the conclusion that the favourite method of presentation is in three D human body, followed by three D mannequins. The less appreciated presentation method is through hangers (Table eight).

**Table eight - Means of the types of presentation of the product preferred by the consumer**

	Mean	Standard Deviation
Mannequins 2D	4,06	1,781
Human Body 2D	4,56	1,826
Mannequins 3D	5,71	1,547
Human Body 3D	6,16	1,361
Hangers	3,04	2,000
No physical support but with the body shape	4,04	1,961

Characteristics of products which the consumer considers to be important to obtain information

In the question eight the objective was to identify the characteristics of the products of which the consumer considers to be important to get information. The most important were the style, silhouette, shape and fabric, as well as being of particular importance to have information on the design of the piece. The features considered of minor importance were embroidery, linings and washing instructions (Table nine).

**Table nine - Means of product characteristics which consumers consider to be important to get information**

	Mean	Standard Deviation
Fabrics	6,05	1,282
Liners	4,78	1,595
Notions (buttons, zippers, ribbons)	5,28	1,394
Details	5,78	1,308
Embroidery	4,73	1,955
Prints	5,15	1,801
Finishes	5,87	1,374
Composition	5,70	1,361
Care instructions	4,86	1,751
Texture	5,77	1,270
Shape	6,06	1,246
Silhouette	6,14	1,226
Style	6,23	1,133
Colour grading	5,78	1,308

## Conclusions

The e-commerce, as analysed, is a market in constant growth and evolution and so greatly influenced by the use of visual merchandising in its construction, evolution and connection to the consumer, which is many times the face of the website and brand and builds the brand image, bringing the consumer entertainment experience and taste for

visiting the site and also the attributes that contribute with a good look and a good set service that builds trust.

It was concluded from the data discussed earlier that the consumer attends the e-commerce mostly in order to see the news and trends which is supported by the preference of visual introduction in which the consumer prefers the direct entrance to the website or then to the news. Nowadays the consumer has become an individual concerned with environmental protection. The variety of pieces and the multiplicity of styles are the attributes preferred by both genders and jeans are considered by both also the product where exists the greater need to try the product before buying, showing that there is still a limitation on the purchase due to this factor. The ability to zoom in on the image followed by the view from different angles, lead the viewing preferences, but with very similar values came the variety of images and for the presentation of the product the preference lies in the human body three D visualization.

In general, sums up that the most important concern is to identify all factors that may be successful in the visual merchandising of the e-commerce site of fashion products, so as to be able to create consumer desire to purchase.

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## Trust in Learning Organizations

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### Abstract

*Trust and systemic leadership are the basics of an evolving learning culture. This paper summarizes part of the findings of a case study in a small medium sized organization in South Germany. It includes some results of qualitative research which are exceptional to the current theory of organizational development. Understanding these phenomena needs a deeper knowledge of the theories proposed by Schein and his "three culture levels", Burns & Stalker with their "three systems" or the basics of Senge's "fifth's discipline"; in which all information and methods must be visible and transparent for the employees. Extracts of the qualitative interviews provide input and impulses for positive learning, such as the time taken for human development and teambuilding activities. A clear message concerned the intolerance shown for human error: "It should be possible to make a mistake and still be valued."*

*Trust in the members of an organization is the 'magic word' for positive learning environments and successful organizations in the long term. This leads to a more trusting systemic leadership with more faith in delegation. This in turn creates greater internal communication, e.g. small talk in the elevator, in a walk to a meeting, feedback opportunities or informal chats with experts. The systemic leader is intrinsically motivated, has a positive view of her/his employees, is able to trust their creative spirit and can visibly demonstrate her/his appreciation.*

*Keywords: Learning Organization, Trust, Systemic Leadership*

### Introduction

In the theory many possibilities to manage learning processes are described which result in a learning culture with trust. In practice implementation is difficult because the basics of a learning culture have to evolve within the enterprise. An evolving learning culture includes all individuals in the entire organization; the management and the employees (Senge 2006). It is better to work in an organization in which there is an environment of transparency, trust and value. Feeling confident in one's abilities makes the work enjoyable, resulting in motivated and integrated members of an organization. A learning culture with trust guarantees the continuous flow of innovation necessary for organizations to be competitive and at the cutting edge. Over-control leads to defiance. This basic truth must be acknowledged as the first step to an evolving learning culture. This is possible through feedback, commendations and giving confirmations. These communication channels and exchanges increase trust as discussed in IDG Business Verlag GmbH (2011) and Pichler (2011, p20) "*Abschied von der Steuerungsillusion*"<sup>11</sup>. The Author describes in his article the path to a systemic leadership based on some consolidated findings of the Chilean biologist and philosopher Maturana. Maturana in his "theory of cognition" states that the primary function of every living organism is to survive (Maturana & Varela 2009). The members of the organization can work perfectly

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<sup>11</sup>"Farewell of the control illusion" (translated by the author)

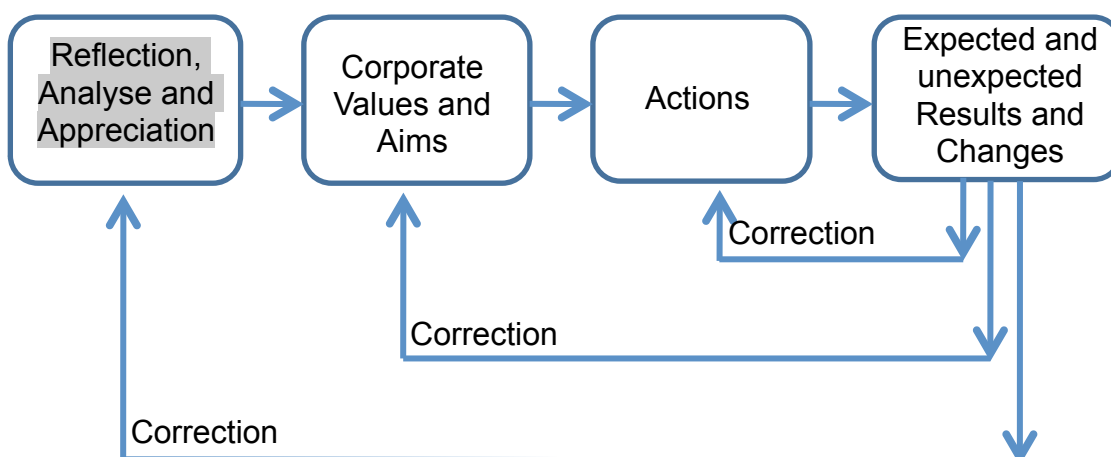
together and the processes can operate unhindered like the “autopoietic system”<sup>12</sup>. An organization needs leadership, a leadership that invites belonging. The systemic approach is a radical break from the top-down approach. The magic word “communication” provides the bridge. This is further discussed in the work of the German sociologist and system theoretic NiklasLuhmann<sup>13</sup>. (Pichler 2011; Pinnow 2011).

The second chapter describes learning culture and the model of Argyris with an overview of the cohesion between culture, trust and systemic leadership. The third chapter describes the personnel view and the methodology used (e.g. problem identification interviews) (Lamnek 2005; Witzel 2000). Some first findings of successful learning in an organization are mentioned. A proposal for further research will complete this paper.

## Learning Organizations

Senge’s “fifth discipline” mentions important points for effective learning in organizations: personal mastery, personal perception “mental model”, shared visions and team learning. The total of which creates system thinking. Personal mastery is achieved and created in an environment that encourages personal and organizational goals to be developed and realised in partnership. Build a sense of group commitment by developing shared images of the future is the shared vision of the whole staff. Team learning processes that fosters spoken and collective thinking, increases a group’s capacity to reliably develop group intelligence and cohesion, such as the principle of Aristotle: “*The whole is more than the sum of its parts*”. The members of the organization develop the ability to see the ‘big picture’ and understand how changes in one area affect the whole system. (Senge 1997; Senge 2008).

Below is a typical model of individual and organizational learning, as described by Argyris & Schön. It is called single- and double-loop learning or reframing learning<sup>14</sup>. The development of these models leads to the deutero-learning model.



<sup>12</sup>This term "... simply means processes interlaced in the specific form of a network of productions of components which realizing the network that produced them constitutes it as a closure unity." (Maturana & Varela 1980, p80).

<sup>13</sup>NiklasLuhmann: \* December 8<sup>th</sup>, 1927, † November 6<sup>th</sup>, 1998 was a German sociologist and the prominent publisher of the system theory (1984).

<sup>14</sup>"Single-loop learning occurs when matches are created, or when mismatches are corrected by changing actions. Double-loop learning occurs when mismatches are corrected by first examining and altering the governing variables and then the actions." (Argyris 1999, p 68).



Fig.1: Deutero-learning (Heyse & Erpenbeck 1997, p135) in imitation (Argyris & Schön 1978)

Learning is not a closed process, between action and result, correction is possible. Likewise correction is possible between corporate values/aims and actions to achieve the stated goals. The last step is to review the results, actions and corporate aims and to reflect upon possibilities for correction. There is a fundamental need in all learning cultures for members to question and analyse information and to receive acknowledgement. Through monitoring and evaluation a continual development process is put in place; ensuring proactive thinking and survival. (Argyris 1999; Lembke 1997; G. J. B. Probst 1998; G. Probst et. al. 2006).

The important point here is the box on the left side; the ability to reflect. The possibility to reflect on situations and human behaviour is necessary for a functioning feedback process in an organization; it's a critical view in a mirror.

## Trust and Communication

A learning organization needs trust to be able to reflect on human behaviour in working situations. *"A relationship starts with trust. If you do not trust your employees, the employees will not trust you. More importantly: if you not trust your employees, then you do not have any."* (Sprenger 2004, p165). The rational-choice-theory as described by Hubig & Siemoneit, is neither objective nor subjective. It is based on irrational probability that states that choices are often made without the necessary knowledge and self-belief. We need trust to lower our defences. There are different types of trust. Firstly, trust as social capital, or secondly, trust as a principle of an organization for long-term oriented internal and external relations. For this paper the second definition is used. There are different path of communication; "intra", "inter" and "extra". "Intra" is generally used to describe trust to her/him or self-confidence. "Inter" is the alternate acceptance between members of an organization and "extra" is the perception of the values, integrity and motivation of institutions or persons as seen from outside of the organization. Trust in this context, is more than a message, regardless of form, or the product's themselves; it is observable behaviour which encompasses the different cultural levels of Schein. First the visible levels of artefacts, second the visible values and standards and third the invisible fundamental assumptions. (Hubig & Siemoneit 2007; Schein 1999; Schein 2000). *"Ohne Vertrauen keine echte Kommunikation..., ohne Kommunikation kein Vertrauen..."*<sup>15</sup> (Hubig & Siemoneit 2007, pp 178/179). It is requirement and at the same times a product of interaction. Trust creates successful interaction. Trust start within ourselves, it helps us to think positively and be tolerant in our interactions with others. (Hubig & Siemoneit 2007)

Trust from others and placing trust in others enables success; to reach this you have to make commitments and empower all members of an organization. If all employees and manager are 'on board', a conceptual thinking process will begin which includes; creativity and innovation, problem solving, strategic thinking, goal setting, effective interdepartmental communication, achievement milestones and other positive secondary effects. (Senge 2001)

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<sup>15</sup>*"Without trust no authentic/true communication..., without communication not trust."* (translated by the author)

It is important to have trust in your personnel and their competences. The goal is to embrace employees in management and leadership. (Argyris 1999; Sackmann 2004; M. N. K. Saunders 2011)

## Systemic Leadership and Communication

The theory is based on the biology of cognition, in which Maturana states the primary function of every living organism's is to survive. These organisms are individuated living systems, separated by the environment. This autopoietic "emphasizes life's maintenance of its own identity, its informational closure, its cybernetic self-relatedness, and its ability to make more of itself. Autopoietic refers to self-producing, self-maintaining, self-repairing, and self-relational aspects." (Britannica Encyclopedia n. d.). This means behaviour guided by the internal constitution and not by external events. The systemic theory places great importance on communication channels and is thus a radical break from top-down management practices. The magic word "communication" as used by Niklas Luhmann<sup>16</sup> describes a system in which all members of an organization are able to give impulses. This is the only relevant fact in the systemic view. Every form of communication is an impulse in the system, such as small-talk in the elevator or an informal gathering at the coffee-machine where a project might be discussed, feedback opportunities or informal chats with experts. In addition, the pregnant sentence: "Yes, we can"<sup>17</sup> was an impulse that gave hope for change. Despite modern technology, face to face interactions is still the most effective and popular form of communication. These offer the greatest opportunities for change and growth. A company cannot survive if it cannot learn. (Pichler 2011)

There is a flood of literature on new management styles with titles such as *Six Sigma, Re-Engineering, Developing your Company or Leadership*, etc.... on the market. All include the idea of facilitating learning in organizations and human resource development. (Taylor n. d.). "It is characteristic of systemic leadership that the leader thinks strategically, be goal-oriented, be aware of broader contexts and retains the long-term view." (Pinnow 2011, p121). Systemic leadership is focused on specific tasks and on the role of the leader. The systemic leaders have to continuously look for new reality signals external to the organization without forgetting the internal context. "They need to ensure the organization remains an open system and that its [initiative for] change... responds to real rather than illusory realities." (Beerel 2009, p 84). They have mental discipline, are process orientated, are attentive and sensitive to key-members in the organization, and are able to diffuse. (Beerel 2009). Behind this thinking the authors mention three layers which help systemic leaders create trust. The first layer execution prioritizes and focuses on the important elements, bringing success to the organization. Systemic leaders use a system of mind-set to understand the changing reality, are attentive to the system, the internal networks and relationships, they promote values and respect stakeholder interests. "A Systemic leader recognizes the role of expectations ... and that one person or one group of people cannot meet all the expectations all the time – there will always be failed expectations somewhere." (Beerel 2009, p85). The second layer concerns human resource development at all levels. Systemic leader have the ability to adapt and to optimize the learning

<sup>16</sup> Interaction is a social system, which need the physical presence of communication partner. This is the simplest social system and the condition for the community at the same time. (www.luhmann-online.de n. d.)

<sup>17</sup> Barack Obama speaks in Nashua, New Hampshire, January 9<sup>th</sup>, 2008 as democratic candidate for the president of the USA.

potentials and to distinguish between job implementation and technical tools. This gives a sense of empowerment and provides tailor made development programs that everyone appreciates in and out of work. Honesty is the first and last character trait needed by leaders; it needs nurturing. This includes the ability to be objective about one's own behaviour, communication and feeling and thus be authentic and consequent in one's actions. (Beerel 2009; Drucker 2000; Gelink 2011)

To sum up, management and leadership greatly influence the learning possibilities in an organization and thus its success. *"The basic assumption of systemic leadership is that leadership is a system (companies, but even teams are complex systems) and processes everything it needs for its existence and self-organization. ... Systemic organizational development ... occurs in the daily routine with active participation of key personnel at all levels of the company. It is always focussed on the people and the culture of the organization."* (Pinnow 2011, p121)

## Paradigm

*"A paradigm may be viewed as a set of basic beliefs that deals with ultimate or first principles. It represents a worldview that defines for its holder, the nature of the "world", the individual's place in it, ... ; a paradigm establish an ultimate truth."* (Lincoln & Guba 1989, p200)

The primary question of the research is "How does learning take place?" and how is learning transformed into understanding. During the interview process open questions were used to determine where and how learning takes place in the enterprise, and which criteria strengthened and hindered learning. To understand the different subjective views it is important to understand the environment of the organization, e.g. a hierarchical structure polarises those within it. (Lamnek 2005; Witzel 2000)

The interviews were interpreted using content-analysis. It was performed in three steps coupled with comparative analysis. For example: Criteria were sought which strengthened or hindered learning processes, these criteria were synthesised on the micro- and macro-level. The comparative analyse identified requirements for successful learning. The important step is the interpretation of the findings. We found some cause and effect relationships, which answer some academic questions. The possibility for generalization is constricted, because the interpretation is only valid in this specific context. The author attempts to make conclusions based on the interpretation of the interviews. (Mayring 2008a; Gläser & Laudel 2009).

## Methodology

The research process to date has used different methods. Below is a brief overview of the research steps conducted in a small medium sized enterprise in South Germany.

After initial high-level talks with representatives of the management and a presentation by the author, introducing the study, problem-oriented interviews were performed (Lamnek 2005; Witzel 2000). The face-to-face interviews were exploratory and loosely structured (M. Saunders et. al. 2007). The interviews were constructed to foster dialogue.

The methods used for both the data gathering and the analysis are at the same time inductive and deductive in nature. From the view point of human constructivism “science is driven by questions not methods” (Denzin et. al. 2000).

## Initial findings

Here are some findings of the interviews.

1. Leaders and managers should act as role models; that means they have to be authentic and believable. See Chapter 2.1: Trust and Communication, Paragraph 1 and Chapter 2.2: Systemic Leadership and Communication, Paragraph 2.
2. Information about decisions must be transparent for all the employees, not only for the relevant members; this creates a feeling of reliability. One important point in this context is the actuality of the information; only real-time information is “good” information. See Chapter 2.2: Systemic Leadership and Communication, Paragraph 1.
3. For the members of an organization it is very important they have access to learning & individual development and they are involved in its planning. See Chapter 2.2: Systemic Leadership and Communication, Paragraphs 2 and 3.
4. For new development phases, products or adapted processes it is important to accept failures. Failure and blame are closely connected. Here the type of mistake is important. It is necessary to deal openly and constructively with failings using a solution oriented approach. (Edmondson 2011, p30)
5. A word that was often mentioned was “trust”. See Chapter 2.1: Trust and Communication, Paragraphs 1 and 2.

These initial findings are significant for successful learning which is independent on the company culture and members of an organization. „*A robust company is not a collection of leftover “human resources”. It is a community of engaged human beings.*” (Online Mintzberg 2009). The analysis is on-going.

## Next step

With the first findings, there is an observer able gap, between the theory and practice. The theory describes the total optimized learning organization, but how can we implement the different models of learning, systemic leadership and behaviour in daily use? The final product of the research process will be an integrative model of learning which can be translated into practice.

With the results of the qualitative analysis the next step is to build the hypotheses for the survey questionnaires. Yauch & Steudel (2003, p465) deem using both qualitative and quantitative methods produce more robust results.

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## Is the Student Fashion Show Delivering All It Can?

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### *Abstract*

*The U.S. premier of America's Next Top Model and Project Runaway, intensified public interest in the fashion industry resulting in an increased number of students enrolling in fashion programs. Many programs offer a student fashion show, which allows them to 1) differentiate their program from their competitors, 2) inspire prospective fashion students, and 3) provide a platform for industry people to recruit designers.*

*The purpose of this study was to understand the specific attendance rationale of the 2011 student fashion audience at one large university in the West Coast of the U.S.*

*From the 1000 person audience 124 survey volunteers were found to be family members, friends, current students, prospective students, and industry professionals. The majority stated their attendance rationale was that they wanted to 1) be entertained, 2) see friends' designs, and/or 3) evaluate the quality of student work. Additionally, the exit survey indicated that the show generally satisfied participants' initial stated purpose for attendance. This detailed feedback is a first step in future research to improve the benefits of this event such as how to provide increased contact/follow-up between students and industry following the show and/or increased program visibility.*

*Keywords: Fashion program, student fashion show, higher education, USA*

### Introduction

Fashion, it is exciting, it is exclusive and it is ever-changing. The fashion industry is one of the few industries that reinvents itself on a seasonal basis. This constant reinventing is what keeps consumers reading fashion magazines, tuning in to TV shows and refilling their closets. With the advent of the internet, millions of fashion bloggers now offer their opinions of high profile fashion shows, faster than Vogue can hit the press. In the new millennium, high fashion is becoming much more accessible, as seen among celebrities such as Jessica Simpson, Mary Kate and Ashley, Victoria Beckham, Lauren Conrad, and Rachel Zoe take their love of fashion to the catwalk and make millions of dollars doing it. Meanwhile, popular discount retailers like Target are bringing many of the runway brands to mainstream America through exclusive licensing agreements.

One key reason fashion has become more accessible is the creation of popular television shows such as America's Next Top Model, Project Runway, The Rachel Zoe Project and the newest addition by NBC, Fashion Star, set to launch in March, 2012 (Elber, 2011). These shows have contributed to the growing interest in the fashion field and will continue to capture audiences by exposing the actual processes and challenges of fashion design.



Student enrollment in fashion programs has increased tremendously since the launch of these shows (Capriccioso, 2006). As a result, the number of students majoring in Fashion Merchandising and Design (FMD) at California State University Long Beach has been doubled since 2003. The majority of people who follow these television shows are typically between 18 to 24 years of age, which helps to support the idea that these fashion television shows have a direct impact on the increasing number of students enrolling in fashion programs (Littlejohn, 2007).

In this time of growing interest in majoring in fashion design or fashion merchandising among young students, devising effective means to increase their fashion program's visibility is critical for universities. Many fashion programs increase their visibility by offering a student fashion show. Some universities' annual student fashion show attracts high profile sponsors such as Cotton Incorporated, Le Redoute, Macys and Cosmo Girl magazine. In addition, students may compete for upwards of \$10,000 in grants and editorial coverage in globally distributed magazines (White, 2006). These shows allow universities to 1) differentiate their program from competing school, 2) inspire prospective fashion students, and 3) provide a platform for industry people to recruit designers who may bring attention to their school through their future work. But ultimately, these fashion shows are creating future leaders. These shows are creating hands-on opportunities for students to collaborate, negotiate, network, resolve conflict and communicate, which have been proposed to be key factors that develop leadership skills. "In their future careers students will experience the unpredictable and chaotic work environments of today's global market place. To succeed, students will need the ability to find and synthesize diverse sources of information, to manage self, and to empower others" (Marcketti, Arendt, & Shelley, 2011).

Universities offering a student fashion show is a reflection of the fashion industry practice of using fashion shows to market a designer's line. It is natural that a university would utilize a fashion show as a promotional, educational and public relations tools. The fashion show is the lifeblood of the fashion industry. It is what motivates designers to be more creative, innovative, and original. It is what motivates editors to put in long hours and what motivates celebrities in selecting their next red carpet gown. The energy, enthusiasm, and ambiance of a fashion show is what gets people hooked on this business. It is the most important and visible event in the fashion industry. Each of the top five fashion capitals in the world – Milan, New York, Paris, Rome, and London – hold two annual fashion shows, one in February to showcase fashions for the upcoming Fall season and one in September to showcase fashion for the Spring season.

The purpose of these annual fashion shows is to present designers' collections for the press, buyers, socialites, celebrities and others who are interested in the fashion world. Each of these target audiences has its own goal in attending these fashion shows. For example, the press (fashion journalists, fashion magazine editors, and bloggers) review collections, critique them, assess the mood of fashion for the upcoming season and identify strong trends to be discussed in relevant domains (e.g. newspapers, magazines, TV shows, web-pages, etc.). In addition, fashion retail buyers make selections for their department stores or boutiques by filtering through offered trends to meet their target market needs. Stylists for celebrities make their shopping lists of the looks their clients will wear during major events such as the Academy Awards Program and the Cannes Film Festival (Patner, 2004).

## California State University, Long Beach in the framework of this study

The purpose of the California State University, Long Beach (CSULB) annual Campus Couture Fashion Show is to 1) showcase the fashion design students' skills and knowledge while providing them with a platform for their future professional careers and to 2) provide the fashion merchandising students an opportunity to produce a fashion show including fundraising, model selection and training, promotion, set design, garment judging, and so forth. This annual fashion show was developed 24 years ago and is presented every spring semester during May in the Carpenter Performing Arts Center, CSULB. Branded as the "Campus Couture Fashion Show", it has become the highlight event of the FMD program at CSULB.

One of the strengths of the Campus Couture Fashion Show is that the panel of judges for the student fashion show consists of reputable fashion industry professionals who contribute to the show not only by judging, but also by recruiting students to work for their companies after graduation. Most of the industry professionals come from Los Angeles/Orange County based fashion companies such as Hurley, Project Runway, Chip & Pepper, Quail, Fokis Designs, Tankfarm Clothing, 310 Shoes, and Project Ethos (Oca, 2009)

The majority of the works are from the junior and senior design classes with 10 selected as "Rising Stars" works from the sophomore design students. Garments for the show come from the classes that design students are required to take, for example, Apparel Draping, Experimental Apparel Design, and Computerized Apparel Flat Pattern. Allowing students to show a connection between what they learn in class to a finished product is an important purpose of the Campus Couture Fashion Show which also highlights the professionalism of the FMD program at CSULB.

There are three overall awards presented to students at the end of the show: Best in Show, Most Marketable, Most Innovative, Best Collection as well as awards for the Best Design from specific courses. Every year the fashion show tickets sell out with an audience of one thousand people a mixture of industry professionals, fashion students, family and friends of students, and models. The FMD program assists the design students in preparation for their future careers by "positively setting themselves up for recognition by scouts that attend the show" (Franklin, 2009).

Five selected students work as the coordinators of the fashion show production which covers the entire year. Like all professional fashion shows, enormous effort is put into organizing, fundraising, scheduling, and creating excitement about the show. The annual Campus Couture Fashion Show is the largest student-run event on the CSULB campus and is produced by the fashion show coordinators and the students in the Fashion Promotion classes (Oca, 2009). Students majoring in Fashion Merchandising are required as part of their curriculum to take a course titled Fashion Promotion and Sales in which they contribute to the annual show by participating in one of the fashion show committees such as Modeling, Fundraising, and Public Relations, staging, and food. Committees organize the fundraising, modeling auditions, garment presentation, lighting, music, and creating awareness about the event and fashion program using a variety of promotional methods.

For each fashion show, the Fashion Promotions course students raise approximately \$30,000 by holding car washes and yard sales, and selling candy, ads for the show's

program, and fashion show tickets. They receive donations from professionals (Asch, 2008). Along with an average of about 75 students helping back-stage, volunteer hair and makeup artists from the Paul Mitchell I and Marinello Schools of Beauty have assisted with the show every year (Oca, 2009). While the tickets for the actual show have increased over the past years from \$5 in 2005 to \$20 in 2011, the show has continued to sell out every year. The number of garments showcased has increased as well from about 150 in 2005 to 250 in 2011. Each year the students learn and grow from prior students' experiences, develop new and exciting ideas to increase the shows exposure and ultimately produce more successful and professional student fashion shows (Franklin, 2009).

Just as designers use fashion shows to promote their brand, or high tech companies, like Intel, use fashion shows to promote their gadgets (Corcoran, 2008), CSULB Campus Couture Fashion Show uses its annual fashion show to increase exposure for its successful fashion program. As an opportunity for current and prospective students to explore their interests in pursuing a career in fashion industry, the show has become a main priority for every FMD student (Miranda, 2009). When prospective students attend the show, they become inspired by all of the contagious energy that radiates from this fast paced and creative environment.

## Purpose of the study

The Campus Couture Fashion Show is important for fashion students' future careers because it helps to prepare them to be leaders in the fashion industry. In a study conducted in 2009 of 18-32 year old college students who participated in an annual fashion show, it was revealed that "students seemed to discover and learn about their leadership identities by interacting with others in the event management class" (Marcketti, Arendt, & Shelley, 2011). Although there have been after-show evaluation meetings among students in Fashion Promotion and Sales, fashion show coordinators and professors, the FMD professors found the needs to conduct a more formal research study to find out the audiences' expectations on the Campus Couture Fashion Show. The results from the study will help the fashion show organizers improve the show and thus increase the visibility and establish a better reputation of FMD program. The purpose of this study was to understand the specific attendance rationale of the audience during 2011 Campus Couture Fashion Show at CSULB. The following research questions were developed:

1. Who is the audience attending the Campus Couture Fashion Show at CSULB?
2. What are the goals of the audience attending the Campus Couture Fashion Show at CSULB?
3. Were the initial pre-show goals of the audience addressed?

## Methodology

### Questionnaire Development

A questionnaire was developed by the authors to assess the specific attendance rationale of the audience during 2011 Campus Couture Fashion Show at CSULB. The questionnaire included three sections: Section 1: examinations on motivations for attending the student fashion show; Section 2: background profile and demographic

information; and Section 3: assessment on satisfactions with attending the student fashion show. In Section 1, participants were asked to rate 14 items describing purpose options of attending the show on a five-point Likert-type scale (1= strongly disagree, 5= strongly agree) with an option of selecting not applicable. In Section 2, participants were given 15 items to select from the list regarding their background profile; they were asked to select all that applied to them. Additionally, gender, age, and ethnicity questions were asked in this section. Gender and ethnicity question were accompanied with multiple choice response options; the age question was open-ended. In Section 3, participants were asked to rate the following statement on a five-point Likert-type scale (1= strongly disagree, 5= strongly agree): The Fashion Show satisfied my initial purpose for attending this event. In addition, two open-ended questions allowed participants to give comments on which of their initial expectations for the show did not meet and also to provide any additional comments related to attending the show.

## Data Collection

The data was collected during the May of 2011 Campus Couture Fashion Show at the Carpenter Performing Arts Center, CSULB. Undergraduate student surveyors administered the survey. The surveyors approached fashion show attendees as they entered the fashion show location distributing the surveys one hour prior to the show's start time. Participants filled out Section 1 and 2 before the show and returned the surveys to the surveyors. Participants were asked to fill out and return Section 3 at the end of the show as an exit survey.

## Participants

Approximately 1000 people came to the fashion show, among which 124 (12.4%) volunteered to participate the survey. Twenty-seven incomplete surveys were discarded and 97 surveys were used for data analysis.

Analyses on demographic information showed that the participants' ages ranged from 15 to 76. The largest age group was in their 20s (40.2%), and a little more than 15% were teenagers (15.5%) and in their 50s (16.5%), respectively. The rest of the participants were fairly evenly distributed in the other age groups including 30s (6.2%), 40s (8.2%), 60 (7.2%), and 70s (2.1%).

Analyses on ethnic background showed that more than half of the participants were Caucasians (59.8 %), followed by Asians (14.4%), and Hispanic (13.4%). The rest were, multi-racial (8.2%), and African American (3.1%). Participants were primarily female (79%) and 17.5% male.

## Data Analysis

The data were analyzed using Statistical Package for the Social Sciences (SPSS) software, and the descriptive analysis was conducted.

## Results

Descriptive statistics were conducted to analyze 14 items from Section 1 regarding participants' motivations of attending the student fashion show (Table 1). The primary

reasons participants attended the student fashion show were “to be entertained” (M = 4.54, SD = 0.92), “to see my friends’ work” (M = 4.47, SD = 1.09), “to see the quality and level of the student work” (M = 4.32, SD = 1.07), “to socialize with people” (M = 4.14, SD = 1.15), and “to see the work of our children, siblings, or relatives” (M = 3.89, SD = 1.62).

The motivations with relatively low mean scores were the following items, arranged in order of high to low mean scores: “to talk with other students in the fashion field to get more insight about the program” (M = 2.98, SD = 1.58), “to look for information about the fashion program at CSULB” (M = 2.94, SD = 1.59), “to see my work in the show” (M = 2.65, SD = 1.60), and “to get more information about the program for changing my major/minor” (M = 2.32, SD = 1.61).

**Table 1. Audience Motivation to Attend the Fashion Show**

Attendance Reasons	Ratings from 1 to 5			N/A
	% (N)	M	SD	% (N)
To be entertained	78.35 (76)	4.54	0.92	21.65 (21)
To see my friends’ work	58.76 (57)	4.47	1.09	41.24 (40)
To see the quality and level of the student work	77.32 (75)	4.32	1.07	22.68 (22)
To socialize with people	71.13 (69)	4.14	1.15	28.87 (28)
To see the work of our children, siblings, or relatives	67.01 (65)	3.89	1.62	32.99 (32)
To get more information about fashion trends	67.01 (65)	3.43	1.49	32.99 (32)
Requirement of a FMD course	26.80 (26)	3.23	1.77	73.20 (71)
To meet faculty in the area of fashion	45.36 (44)	3.11	1.63	54.64 (53)
To recruit talented students in the field of fashion	35.05 (34)	3.09	1.75	64.95 (63)
To get better information about the quality of the CSULB fashion program	53.61 (52)	3.06	1.46	46.39(45)
To talk with other students in the fashion field to get more insight about the program	45.36 (44)	2.98	1.58	54.64 (53)
To look for information about the fashion program at CSULB	48.45 (47)	2.94	1.59	51.55(50)
To see my work in the show	26.80 (26)	2.65	1.60	73.20 (71)
To get more information about the program for changing my major/minor	39.18 (38)	2.32	1.61	60.82 (59)

Five-point Likert-type scale (1= strongly disagree, 5= strongly agree), N/A = Not Applicable

Section 2, the background profile items were analyzed using descriptive statistics and Table 2 summarizes the results. The two groups that accounted for more than 35% of the participants, respectively were, “I am a parent/family member of a student in the Fashion Merchandising and Design program at CSULB” (40.21%), and “I am a parent/family member of a CSULB student”(35.05%). It is likely that overlaps exist between these two groups since participants were asked to select all the items that applied to them. Approximately 25% were students at CSULB because they selected either “I am a student at CSULB with a major/minor in Fashion Merchandising and Design program” (14.43%) or “I am a student at CSULB other than a Fashion Merchandising and Design program” (10.31%). Some participants selected “I am a parent/family member of a model in this show” (8.25 %), and “I am a prospective student” (7.22 %). Approximately

5% were CSULB alumni because they selected either “I am a CSULB alumni with a major/minor in Fashion Merchandising and Design program” (5.15%) or “I am a CSULB alumni other than a Fashion Merchandising and Design program” (2.06%).

The items with less than five participants were “I am a parent/family member of a fashion student attending community college” (3.09%), “I am a CSULB faculty/staff” (2.06%), “I am a community college student in a fashion program” (1.03%), “I am a parent/family member of a high school student who is interested in studying fashion” (1.03%). No participants indicated that they were fashion instructors at a community college or at another 4 year program.

**Table 2. Participant Background Profile**

Please check the boxes that apply to you (check all that apply)	Yes % (N)	No % (N)
I am a parent/family member of a student in the Fashion Merchandising and Design program at CSULB.	40.21 (39)	59.79 (58)
I am a parent/family member of a CSULB student.	35.05 (34)	64.95 (63)
I am a student at CSULB with a major/minor in Fashion Merchandising and Design program.	14.43 (14)	85.57 (83)
I am a student at CSULB other than a Fashion Merchandising and Design program.	10.31 (10)	89.69 (87)
I am a parent/family member of a model in this show.	8.25 (8)	89 (91.75)
I am a prospective student.	7.22 (7)	92.78 (90)
I am a CSULB alumni with a major/minor in Fashion Merchandising and Design program.	5.15 (5)	94.85 (92)
I am an apparel industry professional.	3.09 (3)	96.91 (94)
I am a parent/family member of a fashion student attending community college.	3.09 (3)	94 (96.91)
I am a CSULB alumni other than a Fashion Merchandising and Design program.	2.06 (2)	97.94 (95)
I am a CSULB faculty/staff.	2.06 (2)	97.94 (95)
I am a community college student in a fashion program.	1.03 (1)	98.97 (96)
I am a parent/family member of a high school student who is interested in studying fashion.	1.03 (1)	98.97 (96)
I am a fashion instructor at a community college.	0.00 (0)	100.00 (97)
I am a fashion instructor in another 4 year program.	0.00 (0)	100.00 (97)

Twenty one participants completed and returned Section 3 of the survey after the fashion show. Descriptive statistics showed that the participants agreed or strongly agreed that the fashion show satisfied their initial purposes for attending the show ( $M = 4.63$ ,  $SD = 0.50$ ). A few participants also provided written comments to the open-ended questions on which of their initial expectations for the show did not meet and also to provide any additional comments related to attending the show. Most gave positive comments that the show was wonderful and was produced at profession level. Some participants commented that they were expecting to see a longer show and more garments in the show.

## Discussion and Recommendations

This study is a first step in using a school fashion show to gather data which may be helpful in improving both the show and the program. In this initial study, the purpose was to determine the specific audience that attend the fashion show, their expectations for the show, and if the show has met their expressed purpose. Since the expressed purpose of the show was to showcase student talent and to give students experience in producing a fashion event, one could conclude that the show was successful.

The results of this study showed the audience to primarily consist of parents and family members of students. As expected, many CSULB students also came to the show including both majors in Fashion Merchandising and Design; and non-major fashions. In addition, the study revealed that one of the major reasons participants come to the show was to be entertained. This proves that watching a fashion show is an entertaining event similar to watching a popular television shows like Project Runway and this confirms a growing interest in the fashion among people. Another main reason for the audiences' attendance was to socialize with people. The results suggests that a student fashion show can be a good place for people to make connections such as fashion students with industry professionals; professors with industry professional; family members with professors; and prospective students with professors/fashion students. Another major reason for coming to the show was to see the students' works. This is natural because many audiences were family members or friends of designers presenting garments and the fashion served a good opportunity to see the works and talents of their children/friends.

It must also be noted that few members of the audience expressed that they were members of the fashion profession or that they had come to scout out talented designers in the field. One of the purposes of a university fashion show is to showcase talent and to attract the fashion industry to take note of that talent. In the fashion show for this research very few audience members identified themselves as fashion professionals. Although many professionals came as the judges for the show; they might have not had a chance to fill out the research questionnaire. Further research could attempt to identify more of the industry professionals who attend the show and to gather data from them. For example it would be useful to survey industry professionals regarding their post-show evaluations such as asking them what their view of the CSULB fashion program was prior to the show and again after the show and whether or not they would consider hiring one of the graduates of the program should their be an opening in their company. It might also be helpful to ask for their suggestions to improve the show.

Several audiences identified themselves as the prospective students from community college or high school and their parents. This information emphasizes the importance of a student fashion show in inspiring and attracting prospective fashion students.

One of the limitations of the study was that only a small number of people completed and returned the exit survey because most people were busy meeting with designers and socializing with other audiences after the show. Therefore limitations existed on capturing overall audiences' evaluations on their experiences of the show.

As a future study, we plan to collect a similar data set again from future Campus Couture Fashion Shows and conduct a longitudinal study to see if the changes made in the fashion show will increase audience's satisfaction level. In a future study, it will be also

important to come up with an effective way to collect more data from industry professionals.

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## How Are Functional Foods Perceived in Japan? Empirical Study of Young Japanese Consumers' Behavior

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### *Abstract*

*Stimulated by consumer interest in a healthy diet, the functional foods market is growing throughout the EU, USA, and Asia. Global food and beverage retailers are entering Japan, the world's second-largest market for functional foods, with many products and brands (e.g., Cadbury's reCALDENT® and Nestlé's Milo®).*

*These conditions bring new energy to food and beverage markets in Japan. Hence, marketing insight into consumers' needs is increasingly important.*

*This paper investigates Japanese consumer attitudes toward functional foods and the factors that influence their buying behavior. In addition, we investigate what factors advance and impede the marketing of functional foods in Japan.*

*Based on the detailed survey data of attitudes, perceptions, and buying behavior among 1,255 young Japanese consumers, sampled from five cities in three regions, we use logit analysis to identify factors important in shaping the consumers' functional food choices.*

*The results reveal that perceptions related to health claims (claims about enriching health effects) and demographic characteristics increase the probability of consumers buying functional foods. On the other hand, attitudes related to the brand and convenience are not presiding factors. In addition, consumers' concerns about "naturalness" in food decrease the probability of buying functional foods. These results suggest there are two "healthy foods" segments among Japanese consumers, and reaching each requires different marketing approaches. These results assist effective marketing communication and retailing strategies in Japan.*

*Keywords: Functional Foods, Japanese Market, Health, Consumer Behavior, Marketing Strategy*

### Introduction

Kotler and Keller (2006) indicated that marketers use techniques for converting low-involvement products, such as food and beverages, into higher-involvement products by linking them to a compelling issue or personal situation. One technique is to add or fortify foods with nutritional additives and proclaim their health benefits on their labels.

Recently, diet consciousness and understanding of the relationship between nutrition and health have spread globally among consumers. This condition has strengthened the presence of "functional foods" in the food and beverage category (Siro, Kapolna, Kapolna, and Lugasi, 2008).

The term “functional foods” covers food products that have been enriched with natural substances/components offering specific physiological, preventive, and/or health-promoting effects (Brunso, Fjord, and Grunert, 2002).

The functional foods market is growing steadily worldwide. For example, the EU, US, and Asia have experienced remarkable market growth in this category. Datamonitor (2008) calculated that the US functional foods and drinks market was \$27.2 billion in 2007 and was expected to reach \$36.6 billion by 2011, a 35% growth rate. In the EU, the category comprised an \$8.4 billion market in 2007 and was expected to reach \$10.6 billion by 2011, a 26% growth rate. In Asia, the market was \$36.6 billion in 2007 and was expected to reach \$48 billion by 2011, a 31% growth rate.

Japan is the world’s second-largest functional foods and drinks market (New Zealand Trade and Enterprise, 2010). A marketing research agency calculated that the market was \$21.3 billion in 2010 and predicted that it would grow to \$24.5 billion in 2015 (Seed Planning, 2010). Basu, Thomas, and Acharya (2007) pointed out that yearly Japanese per capita consumption of nutraceuticals is higher (\$166.00) than that in the US (\$136.00) and EU (\$92.00). Thus, the market presents expanding opportunity and potential (Japan External Trade Organization, 2008).

Therefore, global food and beverage makers are entering Japan with numerous products and brands. For example, Cadbury (Kraft foods Japan) entered with reCALDENT® and Nestlé extended Milo® among aging consumers by placing certified health claims on its label.

However, although the functional foods market is expanding rapidly in Japan, the first country to use the term “functional foods” in the 1980s (Siro, Kapolna, Kapolna, and Lugasi, 2008), few empirical analyses have investigated this marketing and consumer behavior issue. Several empirical analysis have reported that consumer attitudes and acceptance for functional foods differ from country to country (Bech-Larsen and Grunert, 2003; Poulsen, 1999; Bech-Larsen, Grunert, and Poulsen, 2001; Annunziata and Vecchio, 2011). Therefore, investigation of Japanese consumer attitudes toward functional foods and the factors that influence their buying behavior is warranted. In particular, the questions such as “What factors attract Japanese consumers to functional foods?” and “What obstacles to functional food marketing exist in Japan?” need to be answered.

These answers may provide insights for producers and retailers of functional foods in Japan. Moreover, they may help to increase the chances of success in Japan’s large markets for many marketers and companies. Therefore, this paper investigates Japanese consumer attitudes and acceptance of functional foods and the factors that influence their buying behavior.

The rest of this paper is organized as follows. Section 2 introduces an overview of Japan’s functional foods market and its regulation. Section 3 presents theoretical background and constructs hypotheses for this empirical study. Section 4 describes the study’s data and methodology. Section 5 discusses the empirical model used in the analysis. Section 6 summarizes and discusses results. Section 7 concludes the study.

## Recent conditions of functional foods marketing in Japan

The Japanese invented modern functional foods in the early 1970s (Annunziata and Vecchio, 2011). Nowadays, functional foods in Japan can be classified into three categories: foods for specified health uses (FOSHU), foods with nutrient-functional claims (FNFC), and all other foods including nutritional supplements. The difference among these categories is the types of claims that can be placed on their products.

### Health claim approval systems and market conditions

Similar to the EU regulatory system, approvals of health claim require support of robust scientific evidence (Lalor and Wall, 2011). In 1991, the Ministry of Health introduced rules for approving health-related claims for the category of FOSHU (Tokuho). The rules included the establishment of specific health claims for this type of food (Siro, Kopolna, Kopolna, and Lugasi, 2008). At the same time, the Japanese government initiated “self-medication” programs, which urged people to manage their own health through dietary practices (Japan External Trade Organization, 2008).

Many functional food products were brought to market during this period, and several have become popular items. Since 2003, Kao Corporation has introduced its Healthya® Green Tea and Water series, which has been supported by consumers concerned about body fat. Its products have contributed to the expansion of the functional beverages market in Japan, reflecting a growing attention to obesity control in preventing lifestyle-related diseases (Japan External Trade Organization, 2008). Sales of Healthya® Green Tea and Water product totaled ¥172 million (about \$221 million) in fiscal 2009 (Fuji-keizai Research Institute, 2010). This product comprises an important category in the functional foods segment, fostering the emergence of many other products. For example, Ito en, Japan’s best-known maker of green tea, introduced Catechin Ryokucha®. AGF(AJINOMOTO GENERAL FOODS, INC.), a joint venture launched in 1973 between Japan’s monosodium glutamate giant Ajinomoto and General Foods, the US coffee marketer owned by Kraft Foods. Since 2005, the company has introduced coffee-based products “Blendy plus®” as an oligosaccharide series of coffee that purport to improve intestinal function, and a related government-approved coffee that claims to reduce body fat (Japan External Trade Organization, 2008). In addition, Nestlé launched Milo® as a “product with health claims.” It is said to promote absorption of calcium and contains fructo-oligosaccharide.

Foods for Specified Health Uses are approved by the Ministry of Health, Labor, and Welfare. They are allowed to feature the formal FOSHU logo on the product label along with claims of specified dietary uses to help promote consumers’ health. It requires detailed review process with safety and scientific evidence of efficacy for each application, and is designed to be effective in maintaining and promoting health by incorporating active ingredients in food products. Management of food labeling, including the FOSHU program, was transferred to Japan’s Consumer Affairs Agency on September 1, 2009 (Matsutani Chemical Industry, 2011). A health claim is a presentation that states, suggests, or implies a relationship between health and a food product or its constituents. Health claims include those about nutrients, enhanced functioning, and reduced disease risk (Shimizu, 2003). For example, Recaldent® gum, certified under the FOSHU heading, contains CPP-ACP, and eating this product can prevent cavities and strengthen teeth by retarding demineralization. Its packaging features detailed recommendations about daily consumption.

In 2009, 949 FOSHU products were introduced in the market (Fuji-keizai Research Institute, 2010).

The market size of FOSHU products more than doubled from \$2.72 billion in 1999 to \$6.59 billion in 2010. However, in 2009, a major oil brand that made health claims related to weight loss and weight maintenance halted sale of its products because they contained a small amount of glycidol fatty acid esters. This incident caused the market to shrink.

To obtain FOSHU approvals, companies incur between \$48,000 and \$119,000 in R&D cost, mainly clinical investigation costs. These approvals prolong product development by about three to five years, delaying market introduction (Iryoukeizaikennkyuu·Shakaihokennfukushikyukai, 2009).

### Nutrient claim regulation systems and market conditions

FNFC or Eiyou-Kinou-Syokuhin have a standard regulation system, which refers to all food labeled with the nutrient function claims specified by the Ministry of Health, Labor, and Welfare.

Standards and specifications indicating nutritional function have so far been established for 17 ingredients (12 vitamins and 5 minerals). These foods may be manufactured and distributed without permission by or notification of the national government, provided that they meet the established standards and specifications.

These foods are labeled with nutrient contents and claims about function (New Zealand Trade and Enterprise, 2009). For example, FNFC foods that contain calcium can be labeled “necessary in the development of bone and teeth.” Those containing Vitamin B1 can be labeled “helps to produce energy from carbohydrates and to maintain health of skin and mucosa” (Ministry of Health, Labor, and Welfare, 2012).

The category “all other health foods” includes nutritional supplements (the general foods category). These cannot claim health benefits (New Zealand Trade and Enterprise, 2009).

**Table 1 Classification of Japan’s functional food system**

	<b>Claim</b>	<b>Certification</b>	<b>Example brands (maker)</b>
Food for specified health uses (FOSHU)	Health claim	Individual certification	reCALDENT (Kraft Japan), Milo (Nestle), Healthia green tea and water series (Kao), Kuro woolong (Santory), Bulgaria yogurt (Maiji), All-Bran (Kellogg)
Food with nutrient function claims (FNFC)	Functional claim	Standard	Milo (Nestle), Danone Densia (Danone Japan), Cornfrost (Kellogg), AQUARIUS vitamin guard (Coca-Cola Japan),
Other health food	inhibition	—	GLACEAU vitamin water (Coca-Cola Japan), Red Bull (Red Bull Japan)

## Conceptual model of functional food choice: hypothesis

Previous studies have investigated many factors that affect consumer acceptance and choices of functional foods. They focus on attitudes, perceptions related to functional foods, and other foods and demographic factors.

Several studies have suggested that the health claims of functional foods have explicit effects on consumers' choices because health is linked to fundamental life values and purchase motives.

At the same time, health is an invisible attribute; therefore, it must be inferred from more concrete intrinsic and extrinsic cues (Brunso, Fjord, and Grunert, 2002). Health claims are among the most effective tools for communicating accurate information to consumers.

Several empirical analyses have revealed that health claims are important factors in consumers' acceptance of functional foods. Bech-Larsen, Grunert and Poulsen, Bech-Larsen and Grunert, Chen, Chen Wang (2010) suggested that health claims of functional foods affirmatively influence acceptance and purchase. Krystallis and Polymeros (2011) showed that brands carrying a health claim are expected to have an advantage over rival products. Accordingly, health claims are used to convey the message of a health-promoting product and to constitute a brand's differentiation strategy.

Consumers know little about the potential functioning of ingredients in food products, so inferences about healthiness depend on providing information establishing the link (Brunso, Fjord, and Grunert, 2002). Therefore, we can expect the following hypothesis:

H1: The more importance consumers attach to health claims, the greater the probability that they will choose functional foods (FOSHU products).

Previous studies suggest that naturalness is significant with regard to functional food choice (Poulsen, 1999; Brunso, Fjord, and Grunert, 2002), because consumers might perceive functional foods as artificial and inferior to traditional healthy eating (Brunso, Fjord, Grunert, 2002). Naturalness is a significant factor because consumers regard functional foods as "fast" food, which they look upon as "unnatural." In addition, Niva (2007) and Urala and Lähteenmäki (2004) argue that some consumers interpret claims of "healthy ingredients" as disingenuous. It is hypothesized that such attitudes decrease the likelihood that consumers will choose functional foods. That is, we expect the following:

H2: The more that consumers value naturalness in foods, the less likely it is that they will choose functional foods (FOSHU products).

Consumers interested in functional foods tend to be less wedded to brands than other consumers. Instead, they are influenced by labels proclaiming health claim and ingredients. Thus, by introducing functional foods, even a lesser-known brand can take consumers from a more familiar brand (Niikura, 2010). Therefore, we can expect that

H3: Consumers who assign importance to a brand are less likely to choose functional foods (FOSHU products).

Healthiness is among the most important factors in purchasing foods, along with taste, price, and other attributes. From a consumer's viewpoint, healthy eating is related to the

nutritional aspects offered by a healthy diet, functional foods, reduced-fat foods, and other elements of health and nutrition (Brunso, Fjord, and Grunert, 2002).

Predictors of functional food consumption are related to consumers' health motivation (Landström, Hursti, and Magnusson, 2007), so we hypothesize that

H4: The more health conscious the consumers are, the greater the probability that they will choose functional foods (FOSHU products).

Brunso, Fjord, and Grunert (2002) pointed out that consumers sometimes perceive functional foods as a convenient solution for healthy eating. Moreover, they think that functional foods solve the perceived trade-off between convenience and health, because healthy eating takes more time and effort (Brunso, Fjord, and Grunert, 2002). Consumers concerned about convenience may purchase functional foods believing they save time and effort in the kitchen. Therefore, we expect that

H5: The more the consumers value convenience, the more likely it is that they will choose functional foods (FOSHU products).

We can assume that convenience shoppers are less price sensitive. Hence, we expect that

H6: The less sensitive the consumers are to food prices, the greater the probability that they will choose functional foods (FOSHU products).

In addition, demographic factors are among the most important attributes of consumer behavior. Some empirical investigations suggest that demographic factors like income may be related to functional food choice. One study suggests that demographic characteristics of consumers play a minor role in consumer acceptance of functional foods (Agriculture and Agri-Food Canada, 2009). In contrast, Verbeke, Scholderer, and Lähteenmäki (2009) suggested that demographic factors play a minor role in the acceptance of functional foods. So, we can expect that

H7: Demographic factors influence consumers' decision to purchase functional foods (FOSHU products).

The following section investigates what factors affect consumers' buying behavior. Then, we explain the methodology and data used in our analysis.

## Data

A detailed consumer survey on attitudes about functional foods was conducted over the six months from January 10, 2011, to June 31, 2011. The area selected for the study included five major cities in three regions: Kyoto and Osaka in the Kansai region, Hiroshima in the Chugoku area, and Matsuyama and Tokushima in the Shikoku area. The respondents were university students studying social sciences at six universities in these large cities.

Questionnaires were distributed to students who agreed to participate, and 1,255 questionnaires were returned.

After eliminating incomplete questionnaires, 1,179 remained and were used as the sample. The sample set included 939 males and 240 females. The ratio implies a bias toward males, but it is representative of university students studying social sciences throughout Japan.

The questions concerned three categories: (1) consumer behavior (purchase of functional beverages with health claims, i.e., those with a FOSHU label); (2) attitudes and perceptions about functional foods; and (3) demographic characteristics (gender, age, household size, etc.). Table 2 shows demographic data of the sample.

According to the data collected, 17.1% of respondents regularly buy functional beverages and 82.9% do not.

**Table 2 Demographic data of the study (N = 1179).**

Variables	Description	Number	Percentage
Sex	• Male	• 939	• 79.6
	• Female	• 240	• 20.4
Age	• 18	• 107	• 9.1
	• 19	• 198	• 16.8
	• 20	• 335	• 28.4
	• 21	• 356	• 30.2
	• 22	• 137	• 11.6
	• 23	• 31	• 2.6
	• 24	• 9	• 0.8
	• above 25	• 6	• 0.5
Household size	• 1	• 448	• 38.0
	• 2	• 39	• 3.3
	• 3	• 111	• 9.4
	• 4	• 312	• 26.5
	• above 5	• 269	• 22.8
Area	• Kansai area ( <i>Kyoto City</i> )	• 759 (401)	• 64.4 (34.0)
	( <i>Osaka City</i> )	(358)	(30.4)
	• Chugoku area ( <i>Hiroshima City</i> )	• 284 (284)	• 24.1 (24.1)
	• Shikoku area <i>Tokushima City</i>	• 136 (74)	• 11.5 (6.3)
	<i>Matsuyama City</i>	(62)	(5.3)

### Hypothesis test: logit models

We constructed the following consumer behavior model for empirical analysis. The model is estimated using logit analysis to control for differing effects and to examine the relative importance of demographic characteristics, attitudes, and preferences about food, behavior, and economic variables.

The linear regression logit models are defined as follows:

$$Y_i = \alpha + \beta_{\text{BLAND}} \text{BLAND} + \beta_{\text{CLAIM}} \text{CLAIM}$$

+  $\beta$ NATURALNESS NATURALNESS  
 +  $\beta$ HEALTH HEALTH  
 +  $\beta$ CONVENIENCE CONVENIENCE  
 +  $\beta$ PREMIUM PREMIUM +  $\beta$ INCOME INCOME  
 +  $\beta$ SEX SEX +  $\beta$ AGE AGE  
 +  $\beta$ HOUSEHOLD HOUSEHOLD

In this model, the dependent variable ( $Y_i$ ) is the  $i$  th consumer's binary buying behavior. It takes the value 1 if the respondent regularly buys functional foods and 0 if he or she does not. BRAND denotes attitudes about the importance of brand (What is your rating for the importance of Brand for food choice?). CLAIM denotes attitudes about health claims (What is your rating of the importance of health claim for food choice?). NATURALNESS denotes attitudes about naturalness (What is your rating of the importance of naturalness for food choice?).

HEALTH denotes attitudes about health conscious (How highly do you value health in choosing foods?).

CONVENIENCE denotes attitudes about convenience (How highly do you value convenience in choosing foods?), PRICE denotes attitudes about price (How important is price in your selection of foods?). SEX is a dummy variable (male or female). AGE is the respondent's age. HOUSEHOLD is the number of persons in the respondent's household. INCOME is a dummy variable (1 = above-average income in this survey, 0 = below-average income in this survey). Table 3 presents the definitions, means, and standard errors.

## Empirical findings

Table 3 shows the estimated results of the model. This coefficient of CLAIM was positive and statistically significant at the 5% confidence level. This result indicates that health claims are positively correlated with purchase of functional foods among young Japanese consumers. In addition, these factors were evaluated by measuring marginal effects (Table 4). CLAIM had the highest marginal effect (6%). Other things being equal, this factor increases the probability of the buying behavior toward functional food products by 6.0%. These findings support H1.

In 2009, the manufacturer of a major brand oil in the FOSHU food category that made health claims related to weight loss and weight maintenance halted the sale of its products because they contained small amounts of glycidol fatty acid esters. This incident caused the FOSHU market to shrink. This result reveals that health claims and FOSHU labeling are significant in the decision to purchase functional foods. As in previous studies about consumer confidence in Japan's regulatory system (Hirogaki, 2011), these results imply that consumers still have confidence in FOSHU labeling.

On the other hand, the coefficient of NATURALNESS was negative. Although significant only at the 10% confidence level, it is nonetheless noteworthy. This result implies that functional foods and their health claims may discourage consumers who value naturalness. This factor had the least marginal effect (-3.1%). This result supports H2.

This result suggests the presence of consumer groups who are downbeat about functional foods, preferring naturalness in foods. Nishinn Oilio introduced two categories



of oil products to the food market. One occupies the “functional healthy oil products” category such as Healthy Resetta and Healthy Coreste; each product makes health claims and is FOSHU certified. Another category is “natural healthy oil products,” such as Bosco olive oil and Pure grape seed oil (Sendenkaigi, 2009).

The former products emphasize their health-promoting benefits with claims such as “Decrease your cholesterol.” The latter products emphasize health-promoting benefits derived from their basic ingredient, such as “oil produced from French grape seeds containing linoleic acid,” or “pure Italian olive oil containing oleic acid.” Our results suggest that there are two types of health foods markets, which may be viewed as exclusive markets.

The coefficient of BRAND is positive but not significant. This result does not support H3. The coefficient of HEALTH is positive and significant at 5% confidence, suggesting that consumers who are highly concerned about healthy diet are more likely to purchase functional foods. This result supports H4. This factor has the second-highest marginal effect (5.6%).

The coefficient of CONVENIENCE also is positive but not significant. This means that H5 is not supported.

PRICE has a positive and significant coefficient (5% confidence), and its marginal effect is 5.2%. This result suggests that consumers are more likely to buy functional foods if they are less sensitive to price. These results support H6.

Demographic variables such as AGE, SEX, HOUSEHOLD, and INCOME were also estimated. AGE has a negative and significant coefficient (5% confidence), and its marginal effect is 1%. The coefficient for SEX is positive and significant at 5% confidence, and its marginal effect is 5.1%. This means that, for male respondents, the probability of buying functional foods decreases by 5.1%.

There could be two reasons behind this finding. First, a high percentage of Japanese functional beverage products are related to neutral fat, obesity, and cholesterol. Since the Japanese government began providing health guidance for “metabolic syndrome” in 2008, primarily men have become interested in weight control. Second, men are said to have less knowledge of ingredients and their effects than women, so they tend to rely more on information about health claims.

HOUSEHOLD is insignificant among demographic variables, and its marginal effects are the smallest at 0.1%. INCOME has a positive coefficient and the third-highest marginal effects at 5.2%. Our data suggest that H8 is not supported.

**Table 3 Description of the variables used in the probit analysis (N = 1,179).**

<b>Variables</b>	<b>Description</b>	<b>Mean</b>	<b>Std. Err.</b>
<b>Dependent variable:</b> Buying behavior	• Respondent buying functional foods regularly =1 • Otherwise = 0	0.1713	0.0109
<b>I n d e p e n d e n t v a r i a b l e : P r e f e r e n c e s a n d A t t i t u d e s</b>			
Bland	What is your rating for the importance of Brand for food choice? 1 = important 0 = not important	0.3256	0.0136
Claim	What is your rating of the importance of health claim for food choice? 1 = important 0 = not important	0.2256	0.0121
Naturalness	What is your rating of the importance of naturalness for food choice? 1 = important 0 = not important	0.4546	0.0145
Health	How highly do you value health in choosing foods? 1 = important 0 = not important	0.5199	0.0145
Convenience	How highly do you value convenience in choosing foods? 1 = important 0 = not important	0.5962	0.0142
Price	How important is price in your selection of foods? 1 = not important 0 = important	0.5190	0.0145
<b>I n d e p e n d e n t v a r i a b l e : D e m o g r a p h i c v a r i a b l e s</b>			
Sex	1 = male 0 = female	0.7964	0.0117
Age	Respondent age	20.2349	0.0504
Household	Respondent household size	3.0059	0.0518
Income	1 = above-average income 0 = below-average income	0.3528	0.0139

**Table 4 Logit analysis of functional foods buying behavior (N = 1,179).**

Variables	Coefficient	Standard deviation	Marginal effect	Significance probability
<b>Preferences/attitudes</b>				
Brand	0.1244499	0.1813531	0.0168195	0.493
Claim	0.4190937**	0.1927002	0.0603187	0.030
Naturalness	-0.2810492*	0.166239	-0.0371224	0.091
Health	0.4271248**	0.1669583	0.0566302	0.011
Convenience	0.2356781	0.1754628	0.0309115	0.179
Price	0.3941864**	0.1637466	0.0522865	0.016
<b>Demographic variables of respondent</b>				
Sex	0.4225331**	0.2118439	0.0516419	0.046
Age	-0.0883208**	0.0402308	-0.0117602	0.028
Household	0.0133538	0.0449902	0.0017781	0.767
Income	0.3761322**	0.1629051	0.0520453	0.021
cons	-0.9686379	0.8806004		
LR chi2(10)		51.57		
Prob > chi2		0.0000		
Pseudo R2		0.0477		
Log likelihood		-514.18827		

\*\*\*, \*\*, and \* indicate coefficients are significant at 1%, 5%, and 10% confidence, respectively.

## Conclusion

Consumers place great value on health when buying food. Buyers of functional food products cannot directly perceive the health benefits proclaimed by products, unlike attributes such as flavor. Thus, consumer communication is a difficult task for makers and retailers of functional food products. To assure that consumers understand their quality claims, large producers of functional foods certify their health claims under government standards. Makers, retailers, and marketers are concerned about the effect of health claims on profits because governmental certifications entail costs. Several recent papers have addressed the effect of health claims on marketing of functional foods. However, few previous analyses empirically examine the effects of health claims on Japanese consumers. In this paper, we conducted an empirical analysis using a logit model of consumer behavior, including consumer acceptance of functional foods and their characteristics.

The results of this paper demonstrated that health claims can increase consumer acceptance of functional foods. In Japan, there were conflicting observations about marketing effects of health claims (that is, of acquiring FOSHU certification). Several studies insist that firms in the functional foods industry could increase market share by acquiring FOSHU certification (Kuriki, Yoda, and Shimizu, 2006; Niikura, 2010). Another study insists that the entailed expense and restrictions may not be repaid in sales and market share (Matsumoto and Ariyoshi, 2006). Our study results suggested that the FOSHU label and its health claims influence Japanese consumers' choice of functional

foods. This finding is consistent with those of previous empirical studies about the effect of health claims on purchasing and consumer acceptance. The findings of this study are as follows:

The more health-conscious consumers are, the greater is their likelihood of choosing functional foods.

Consumption of functional foods is closely related to consumers' motivation to be healthy.

The more willing consumers are to pay higher prices for functional foods, the greater is their likelihood of consuming them.

Consumers' demographic characteristics are significant for their acceptance of functional foods.

However, the interesting result of this research is that estimates of the variable NATURAL in this logit have a negative coefficient and small marginal effects. This indicates that consumers who value naturalness in foods tend to avoid functional foods, although this negative effect is relatively small than health claim effects and other effects.

It is generally thought that Japanese consumers are familiar with functional food products and the health claims on FOSHU labeling (Heasman and Mellentin, 2001). However, our study found that there is a barrier to accepting functional foods that is similar to consumers who are still unfamiliar with them.

Our findings also bear marketing implications for producers and retailers of functional foods. Explicit health claims affirmatively influence Japanese consumers' choices. Therefore, acquiring FOSHU certification could enhance a brand's value. On the other hand, consumers who attach importance to naturalness in foods may avoid functional foods. Considering this negative influence, marketers should identify customer segments and selling channels carefully. Consumer communication should emphasize both their product's functional benefits and its harmonization with nature.

This study is conducted for young people of Japan. Therefore, our observations were limited, so a respondent to the survey should broaden its age range and study region across countries for more general investigation. However, we showed the recent trend of the consumer acceptance of functional foods and their attitudes, and clarified the factors that affect functional food choice.

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## Are Hungarian customers quality conscious?

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### *Abstract*

*Hungary plays more and more important part in Europe's grocery market due to her favourable geographical and other characteristics. Costumers are more and more conscious about quality than quantity while shopping.*

*In our project we aim to do a market research by standard questionnaire while examining the shopping behaviour we get to know the costumers behaviour, their goal and the cause behind them.*

*Costumers' future reactions can be foreseen by these researches. In the costumers' decisions we have examined the effect of the origin, price flexibility, the attitude to overpaying and the place of shopping. The results are evaluated by mathematical and statistical programmes.*

*Some of our conclusions:*

*The origin of the product is given priority only in case of special products (e.g. traditional, unique).*

*Hungarian customers are price sensitive although, they are willing to pay more for products with Hungarian trademark.*

*While choosing the place of shopping hyper- and supermarkets are on the lead, but at the weekends more and more customers go to local markets. Nowadays at the oversupplied markets producers can only hold on by producing excellent quality products and offering them with proper marketing tools.*

*Keywords: consumer behaviour, food quality, marketing research*

### Introduction

Nowadays globalisation of commerce created an ever increasing competition on both local and international markets. Consumers may find goods in their local shops basically from any country. One of the oldest problems for actors on the international market is how customers perceive the fact that a product is of 'foreign' origin.

Researches showed that there is an existing partiality towards a country's locally produced products. Stereotypes about foreigners may have impact on the actual judgement of a product or in other words on the consumer ethnocentrism. Ethnocentric consumers opt not to buy foreign products due to their possible social and economic implications. We might say that cultural differences may never fully disappear as the presence of local preferences can never be ruled out in the international commerce. Perception of local and foreign products greatly depends on the customers' feelings towards their own country. Part of this emotional experience is how one loves his or her



home country or if he or she feels the country superior to others. Therefore, it is important to assess customer habits not only on local but on international markets too.

Due to the globalisation of commerce it is more and more necessary to measure customer habits and preferences.

The ever growing competition requires manufacturers to lay great emphasis on quality. They need to ensure steady and reliable quality and it shall be communicated towards customers as well.

Image of the country of origin is an important influence on how customers perceive goods from other countries. Researches show that customers evaluated similar and fully corresponding products differently because of their country of origin.

Consumer ethnocentrism is not only interesting because it is a global tendency but also because political influences on customer behaviour are particularly evident. Although, political attitude is one of the most important social criteria, contrary to other similar factors such as age, sex, education and social status its influence on customer decisions - other than patriotic purchase - is hardly detectable. We might say that it is such a determinant that buyers are not aware of when they make the customer decisions.

This topic bears special interest as beside its evident economic influences it also has social, psychological and political implications. How it forms a complex and how some of these factors become prominent as a result of various influences have significant actuality in our days. In a world where social issues like sustainable development or fair trade have major impact on forming public attitudes thus economic behaviour of people. Moreover, it characteristically became a political grouping criterion not only globally but also here – or especially here - in Hungary where views on buying local products are often confronting.

## Customer behaviour

When launching a new product manufacturers develop a marketing strategy aiming to ensure the long term success of the goods. According to Vágási (2007) this strategy includes the following marketing functions:

- analysing customer behaviour and market
- determining the range of products and services to be produced and marketed
- informing potential buyers about the products and services
- organising sales
- influencing customers to buy the goods
- promoting customer relations

Each factor plays important part in the success of products. Probably the most important factor, however, is analysing customer behaviour and market. Profound knowledge on customer behaviour is essential to create good long term relations with them.

Hofmeister-Tóth (2003) define customer behaviour as range of activities performed during acquiring and utilisation of products aiming to enhance customer satisfaction.

Table 1. includes the factors influencing customer behaviour.

The notion of „customer ethnocentrism” was introduced by Shimp et al. Based on their observations they found that several customers think that French wines are of better quality than local ones, although, it was seldom chosen due to economic reasons.

In connection with Balabanis’s (2004) researches we can say that the bigger a country’s economic competitiveness the weaker the customers’ resistance against its products. It was also found that the more similar two countries’ cultures are the bigger the customer’s acceptance towards the products made in that country.

In US research Shimp et al (1987) asked 800 customers the following question: “Is it right if Americans buy foreign made products?” In another survey they sent emails to 850 households and 1000 questionnaires to Denver and Los Angeles studying CETSCALE’s efficiency and validity.

They came to the conclusion that further researches are needed to gather more information about how demographic, geographic, regional economic factors influence customer ethnocentric values and what roles these factors play in adulthood.

It also needs to be further researched how intimidation affects customer’s attitude towards foreign products. Most intimidated manufacturers are those operating on economically less developed areas and in regions where presence of foreign competitors are more evident.

Roth (2006) definition of national identity is the following: all ideas that distinguish a given country from other cultures. National identity relates to customer ethnocentrism, therefore, it possibly has the same effects. Hence, stronger national identity may have negative effect towards foreign countries’ image, thus negative impact on purchase intentions.

## Country Image

According to Roth (2006) country image is the entirety of an individual’s presumable descriptive and informative knowledge about a given country. It not only refers to the country’s industrial, technological and political perception but also to emotions towards the country and pride.

Malota (2004) summarised this as follows: “Country image is all the descriptive, concluded and informational belief that we create about a country. It is the entirety of different beliefs, ideas, impressions that people hold about a given country.”

Country image is a picture in our consciousness about a country. Country image indirectly includes the products as well; based on the country image we have preconceptions about the products too. The following factors may influence our attitude positively or negatively:

- Geographic and natural conditions: Having excellent natural conditions agriculture is a dominant sector in Hungary. Owing to natural factors the country is rich in unique regional products such as ground paprika from Szeged or Kalocsa
- Historic factors: historic relations between countries are determinative factor which may influence the formation of customer ethnocentrism. Nowadays this factor became important as well.

- Social factors, including demographics. Age distribution is a significant factor in connection with shaping country the image as younger generation is not able to create ideal image about the country.
- Economic – commercial factors: in this case not only the hard, measurable data such as a country's GDP or unemployment rate shall be considered but also non-measurable factors such as hungaricum type goods that plays also important role in creating the country image.

## Country of origin image

Country of origin image shall be taken into consideration when examining country image. The two concepts are in close connection, there is no distinct boundary between them.

According to Malota (2004) country of origin image is part of the overall image of a product and it is formed based on the country of origin. Accordingly, country of origin image arises from stereotypes associated with the product merely because it was made in a given country.

Country of origin image already comprises the images about products originated from that country. Let's think about our purchasing habits when we make decisions based on land of origin of the product. Germans are known for the exceptional meticulousness, their products are reliable, therefore, we happily buy German products.

Locally produced agricultural products and foodstuffs are especially sensitive to country of origin image, as product quality is influenced by several factors such as habitat, natural and human factors. Hungarian agricultural goods, particularly some products (e.g. Szegedi ground paprika, Makó onion, Egri Bikavér (red wine), Gyulai sausage) obtained fame and good reputation. This enables Hungarians living abroad to buy products made in their home country.

In order to comprehensively satisfy customer needs regional products shall comply with various qualifications and regulations. Marking ensures customers that they buy superior quality goods and due to regular controls they get the same quality on long term too.

## Material and method

We made primary examinations in 2010. The sample is almost representative, 862 questionnaires in total. The questionnaires reached all parts of Hungary, and made sure the distribution age, qualification, occupation and residence.

The questionnaire is the most important device of the primary market research methods. During our quantitative research we used standardised questionnaires, which suited to give numerical data. The standard characteristic of the questionnaire makes it possible that the answers of different consumers are comparable.

We have used SPSS 14.0 program for analysing the data obtained with questionnaire. From the various calculation options of the program we used the followings: descriptive and diagnostic data analysis, cross table analysis, cluster analysis, factor analysis.

When creating descriptive statistics the goal is to characterise the observations. We may evaluate results numerically or by using diagrams. Program helps analysing variables of different scales.

We can group the available mass data by cluster analysis. The point is to adequately differentiate the different groups and also to form such groups that bear common characteristics within the set. Grouping may be performed by various methods. I chose hierarchic method at the processing.

## Results

Where do you shop?

Results show that 247 respondents prefer smaller shops or discount shops; their group represents 29% of the total population (Figure 1). For us the most astonishing finding was to learn that almost the same amount of people goes shopping to hyper- and supermarkets (21%) and to farmers' markets (20%) mainly on weekends. On farmer's markets buyers are most probably find Hungarian products.

What are the characteristics of official Hungarian product (according to respondents)?

Respondents could chose more than one answer. Figure 2 shows that 45 people (28%) chose "Made from Hungarian materials", "Made in Hungary" and "Made by Hungarian manufacturer", which - we think - characterises the definition of official Hungarian product the best. According to 43% of the respondents the most important characteristic is "Made from Hungarian materials"; this shows that people considers relevant if a product is made from local materials. In this way they support their home country's economy. Other factors" received, however, the most answers. This made us think that more researches shall be made in order to learn which other factors are important for customers. Unfortunately, the structure of our questionnaire did not allow respondents to express their opinion in a more detailed manner.

## Analysing product groups

Our next question referred to product groups ranging from foodstuffs through clothes to toys. We highlighted those product groups that are - deriving from their nature - regularly purchased by customers, in other words flow products.

As a result of the performed cluster analysis 5 bigger groups could be formed. The first includes: frozen products; sweets, chocolates; muesli, corn flakes; tea, coffee; cosmetics; chinaware, glassware; toys; clothes; and other categories. Next group includes: spices, seasonings; pastas; alcoholic beverages. Fruit juices, soft drinks, mineral waters form a separate group. Fourth group includes milk, dairy products; egg, meat and sausages while bakery products, vegetables and fruit form the fifth group. The cluster including the most product groups contains "luxury products", whereas the last two the basic foodstuffs.

## Analysis of shopping habits

When analysing customer habits (Figure 3) respondents were asked to describe themselves on a scale 1 to 8 where 1 meant "not important at all" and 8 meant "very important". Based on the answers received we can break up the questions into 4 groups

by using factor analysis; these groups are: “Well informed, conscious customer”, “Characteristics of Hungarian products”, “External factors, opinions” and “Design, product image, brand”. In the first factor the second question is the most significant (with 0.858 co-efficient), in the second factor packaging gets the biggest emphasis. Among “External factors, opinion” family members’ opinion proved to be the most important whereas in the last group the brand name of the given product is the most influential factor.

Respondents needed to evaluate factors on a scale 1 to 5 where 1: “not influenced by that at all” and 5: “very much influenced by that”. Figure 4 was prepared by averaging.

According to Figure 4 customers make insignificant distinction between traditional Hungarian foods and other foodstuffs. The largest difference was found in product prices. Trademarks are more often required for traditional products because such labelling represents excellent quality. However, their availability is not as good as their competitors.

### Cluster analysis for protected geographical indication

By using cluster analysis we may sort Hungarian foods with protected geographical indication in 5 groups. First group includes hajdúsági horseradish, gönci apricot brandy a apricot, the second békési plum brandy, szatmári plum brandy and szabolcsi apple brandy, the third: makó onion, szegedi winter salami, szegedi and kalocsai ground paprika, csabai and gyulai sausages. Budapesti winter salami and kecskeméti apricot brandy both form a group on their own.

### Conclusions, recommendation

The origin of the product is getting more and more important for the Hungarian consumers as well.

Hungarian customers are price sensitive although, they are willing to pay more for products with Hungarian trademark. Price of traditional Hungarian products could be decreased if vendors were left out of market chain since if we were able to buy directly from the producer we did not need to pay the traders’ profit. Therefore, we think Shop of Hungarian Products network is an excellent initiation, here excellent quality products are available directly from the producer.

Traditional Hungarian products need effective communication network. Improvement of information flow would be the most important objective. The research showed that 22% of respondents searched Hungarian spices on the shop shelves. If communication of traditional Hungarian products was more effective demand for e.g. szegedi ground paprika would be bigger.

Communication of labels protecting Hungarian foodstuffs should be more efficient as the aforementioned trademarks are not widely known. Media publicity could be more appropriate as customers use media outlets such as newspapers, radio and television on daily basis. Not only the reputation of locally acknowledged trademarks should be improved but also those used in the European Union, as reputation of protected geographical indication was very low.

Overall, respondents consider Hungarian products average or good. Customers' ethnocentric behaviour needs to be reinforced; if a customer is satisfied with a Hungarian product he or she will chose locally produced goods.

For us it was a positive outcome that 82% of respondents replied to be proud of Hungary and the Hungarian products. After mentioning the country's successes they reflected positively to the achievements of this small country.

72% of respondents expressed that they would not want to live in other country. The younger generation, however, thinks that their professional knowledge worth more abroad than in Hungary. Therefore, career-starters should be assisted with various grants.

**Table 1: Factors influencing customer behaviour**

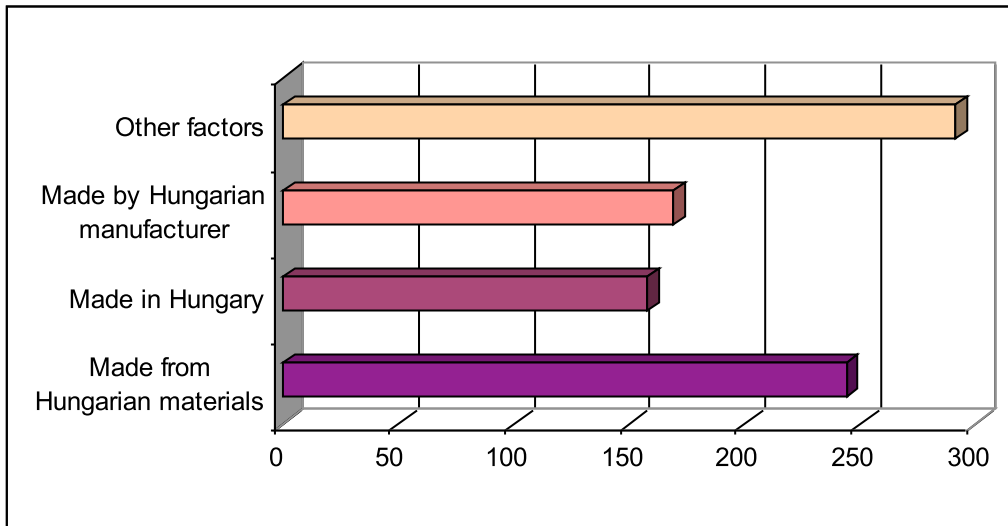
Cultural	Social	Personal	Psychological
Characteristics			
- Culture	- Reference groups	- Age, sex, family	- Motivation
- Subculture	- Status and roles	lifecycle	- Attitude
- Social class		- Occupation	- Personality and self-image
		- Income	- Perception, learning
		- Lifestyle	

Source: Author's editing based on Vágási (2007)

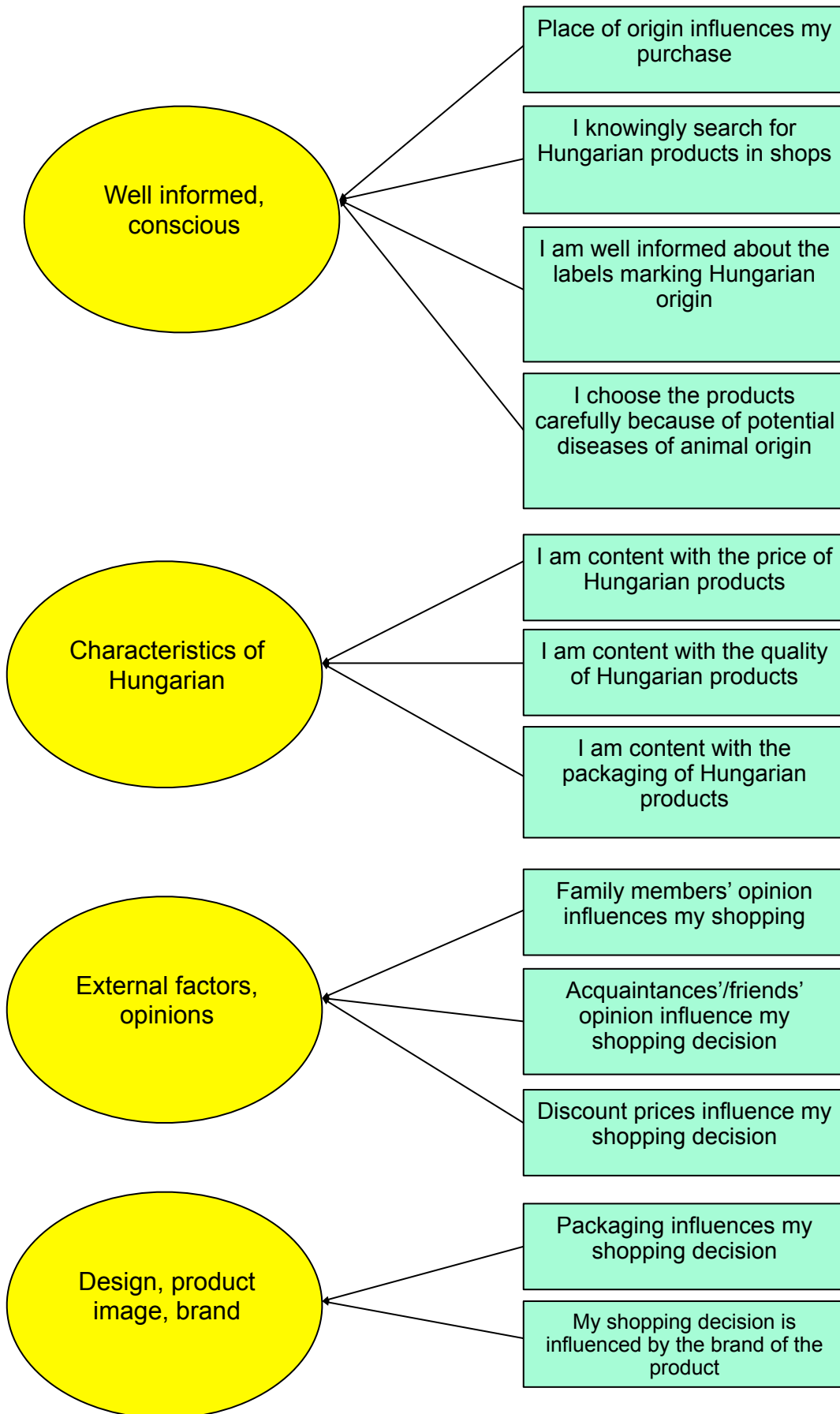
Figure 1. Where do you shop?

$$SCORE_n = \phi + \sum_i^4 \sum_n^N \alpha_i EXPOS_{i,n} + \sum_j^4 \sum_n^N \beta_j EFF_{j,n}$$

**Figure 2. What are the characteristics of official Hungarian product (according to respondents)?**



**Figure 3. Customer habits observed during factor analysis**



**Figure 4. Comparison of traditional food and other foodstuff based on shopping decision**



$$+ \sum_h^5 \sum_n^N \omega_h \text{Other}_{h,n} + \varepsilon_n$$

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## **New Itinerancy: the Potential of Geocaching for Tourism**

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### *Abstract*

*New Itinerancies have emerged during the last few years as the result of cultural, technological and geographical innovations which created new strolling practices. Many examples illustrate this phenomenon such as: hebertism trails, via ferrata, canyoning raids of all kinds as well as geocaching, a treasure hunt of the postmodern time where geolocated objects (called geocache) have to be hidden and found by the players. At the moment, over 1.5 millions geocaches are scattered across the five continents, reflecting the popularity of this new user-made entertainment. Before a short presentation of successful examples combining geocaching and touristic activities, we will exanimate the characteristics of this form of itinerancy. More particularly, we will show how geocaching, considered as an open object, can be varied to infinity notably through creative developments allowing organizations to design a framework for a consumption experience which can take into account touristic, cultural, aesthetic and/or geographic dimensions, in line with the wealth of discovering a region, a locality, a place,... and so, in line with the development of a territorial marketing.*

*Keywords - Itinerancy, tourist experience, geocaching, territorial marketing.*

### **Introduction**

New Itinerancies have emerged during the last few years as the result of cultural, technological and geographical innovations which created new strolling practices. Many examples illustrate this phenomenon such as: hebertism trails, via ferrata, canyoning raids of all kinds as well as geocaching, a treasure hunt of the postmodern time, topic on which our study will focus on. These new itinerancies offer opportunities in the field of tourism and are therefore not to be neglected in the development or updating of a regional/touristic marketing, in line with the emerging phenomena of consumption. In this study, we will highlight and conceptualize the potential of geocaching for tourism by describing its characteristics from which this new itinerancy takes place. But first, we discuss the managerial context and methodology. We then present some examples of geocaching-tourism successes' alliances. We end our article with several managerial recommendations helping to create and provide a framework for a stimulating experience that can highlight and bring to life the specifics, the wealth of a region, a locality, a place, etc. to the geocacher and, in a more general manner, to the tourist.

### **Managerial context**

Tourism marketing has known a significant development over the last three decades. The rise of e-tourism (Buhalis & Law, 2008) and new technologies' integration such as virtual communities (Wang & al., 2001), social media (Barabel, 2010), blogs (Lin & Huang, 2006) or collaborative websites (O'Connor, 2008) like TripAdvisor have largely contributed to the

sector dynamism where the consumer is always looking for more information (Doolin & al., 2002). In this study, we focus our attention on one field of the tourism marketing : the territorial marketing (also called place marketing) which is defined as "a process whereby local activities are related as closely as possible to the demands of targeted customers" (Florek, 2003). As underlined by Lamarche (2003), stakeholders in the tourism sector have conflicting goals with political-economical trade-offs to realize between three pillars: the development, the promotion and the attractiveness of a territory. On these three aspects, the marketing can play a key role in particular for the promotion strategies of the territory (Dinis, 2004) for local, national and international targets (Milne, & Ateljevic, 2001). Given the multitude of choices available to consumers today, territories and their representatives are seeking to take a clear position on the market and no longer hesitate to implement real branding strategy. On this regard, Pike (2005) emphasizes the small number of studies in the tourism sector even though most tourist destinations use catchy slogans to attract tourists. It is in this managerial context that we propose to consider an activity knowing a great success, the geocaching, to create promising new strategies for tourism development of a territory.

## Methodology

In order to conceptualize the full potential of geocaching for tourism and to offer managerial leads, we have accomplished a comprehensive exploration (Jeffrey & Maffesoli, 2005) of multiple websites associated with the geocaching activity by interposed digital screen. Our exploration of these sites was carried out over the last three years during which we have been able to improve our understanding of this new type of itinerancy and identify the opportunities it opened for tourism. More specifically we start our research by visiting on a regular basis the different sections and hyperlinks suggested on the website geocaching.com, since it makes authority for the geocachers. We have entered numerous queries on search engines, using various keywords. At the beginning, we typed simple expressions such as "geocaching" or "geocacher" and then we were able to refine our requests and queries with specific expressions such as "travel bugs", "geocaching associations" or "caches Gallo-Roman", as our knowledge of the phenomenon was better and better. In total, that's more than fifty sites that have been visited, dozens of videos that were viewed and hundreds of comments that have been read. We were able to identify the main features of geocaching, grouped under three concepts: the treasure hunt, the itinerancy and the game. We were also able to find representative examples of what was and what could be accomplished to develop alliances between geocaching and tourism.

## Geocaching

### A treasure hunt

Geocaching can describe as a treasure hunt of the postmodern time (Boulaire & Cova, 2009), based on the geolocation of objects (called geocaches) which are hidden and have to be found by players (called geocachers). The coordinates of a cache are transmitted by its creator to a website dedicated to the geocaching community such as geocaching.com, the most important one, which counts more than 5 million subscribers. Once uploaded, these coordinates become available to the entire community of geocachers and currently more than 1.5 million geocaches are scattered around the world reflecting the popularity of this new user-made entertainment. As time goes by, many

different types of caches were created including the mystery cache (cache whose coordinates can be obtained by solving a puzzle), the CITO cache (Cache In, Trash Out) theme geocache such as the Gallo-Roman cache, the earthcache ("geoscientific" cache highlighting geological events) etc. There are also caches that can travel and which can be assigned with specific goals such as cover a certain number of kilometers or travel all over several continents: this kind of cache is known under the name Travel Bugs. The community of geocachers has been segmented into multiple associations like those of France ([geocaching-france.com](http://geocaching-france.com)), Italy ([geocaching-italia.com](http://geocaching-italia.com)) or those of Florida ([floridacaching.com](http://floridacaching.com)) or Quebec ([quebecgeocaching.com](http://quebecgeocaching.com)). More and more actors, including tourism-related organizations, have expressed their curiosity and interest in this new activity. Great examples are initiatives taken by various parks in the United States ([Georgia State Park](#)), Canada ([Nova Scotia Park](#)) or associated with trails ([Great lakes area](#)). Geocaching is experiencing an impressive interest from both individuals and organizations. The site [geocaching.com](http://geocaching.com) provides the number of logs available on the website (i.e. comments and consultation of geocache, development of new caches). When we wrote this paper, more than 5 million of logs had been created on this site by geocachers in the last 30 days. The treasure hunt combined with the playable and technological dimensions (the latter one enhancing the playfulness), appears as a winning combination and a great source of motivation for many individuals.

### A new type of technologically assisted itinerancy

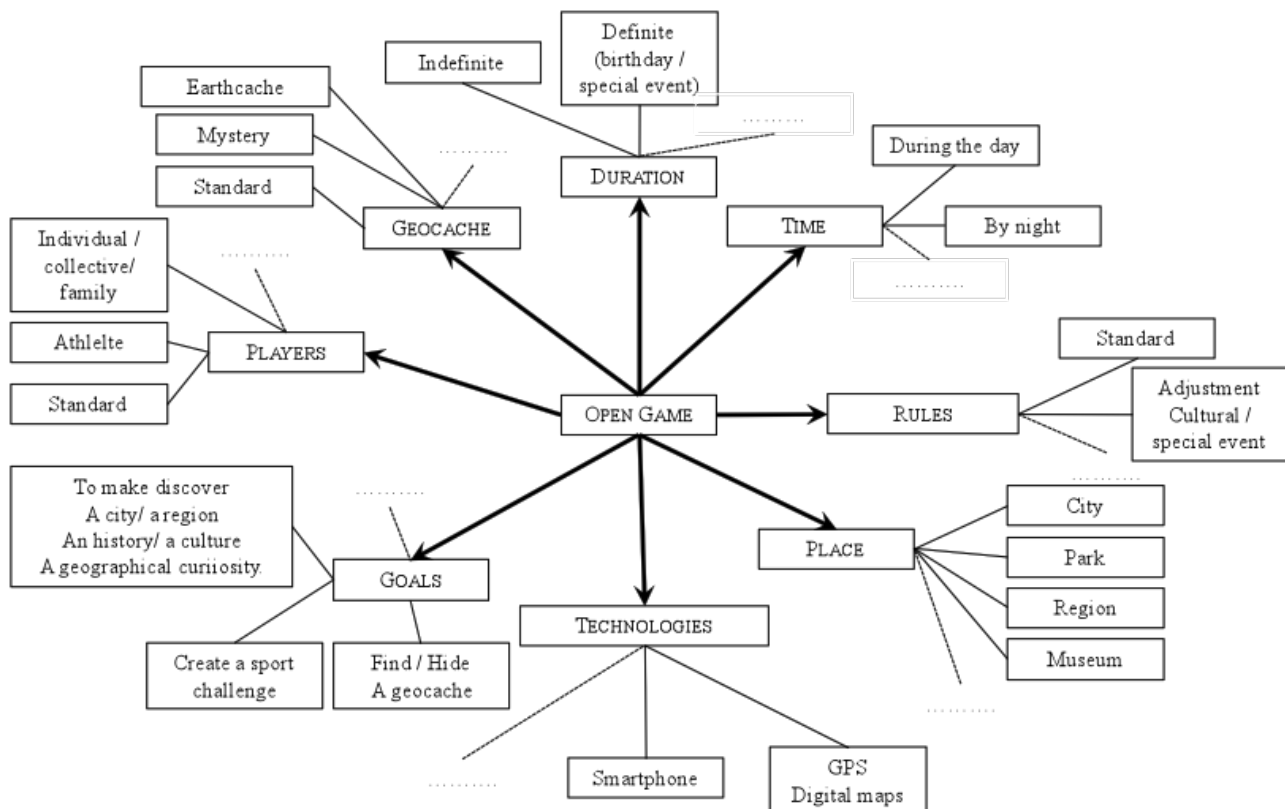
Geocaching can be considered as a type of new technologically assisted itinerancy and can also be presented as a new way to discover as well as to enhance a place : a country, a region, a city. Geocachers rely on location based technologies such as GPS signals which are playing a more and more significant role in the consumers' everyday life, due to their integration in many tools (eg, Smartphone, PDA, GPS ...). The tourist also counts increasingly on these tools to identify or locate services, objects, etc. The universe of location based service (LBS) technologies is large and diverse. Due to the development of Web 2.0 (O'Reilly & Battelle, 2005), digital mapping has taken a prominent place in the interest develop toward the geocaching. When the game started in 2000, positions of the caches were limited to their coordinates (longitude and latitude). Today, digital maps locating caches are freely available on the Internet. Moreover, they can be easily modified and updated, as several authors have shown it, in the tourism sector (Kraak & Brown, 2001; Richmond & Keller, 2003; Boulaire & Hervet, 2010). Figure 1 illustrates how the website [geocaching.com](http://geocaching.com) allows its members to target a cache close to their home (here Central Park on the island of Manhattan), thanks to comments, tags and symbols created by the community of geocachers. This use of the object "map" in its version 2.0 has a significant potential for the tourism industry, according to Nielsen & Liburg (2008) and Boulaire & Hervet (2010). The visualization of geocaches on a digital map is just one dimension of the technologically assisted itinerancy. The proliferation of hardware (PC desktop, Smartphone, iPhone, Blackberry ...) and the development of applications for all mobile operating systems have significantly increased accessibility to the game. Besides, the market for mobile applications gives the opportunity to geocachers to benefit of a technological-customized assistance. The website [geocaching.com](http://geocaching.com) provides a list of 16 different general and specialized applications to enhance the game experience. For example, the application Cachebox available for Smartphone allows users to practice a "paperless" geocaching by posting comments about caches they have discovered, directly from their phones.

**Figure 1. Digital map : Central park & its geocaches**

## A Game

Geocaching is a game which can be played individually and collectively, online and offline. The support it receives from new location based technologies and communication intensifies its playful character. Like any other game, there are rules and goals to observe. In the original version of the game, the goal is to look for or hide a container in various places all over the world whose location is available online. There are also objects related to the game: geocaches but also objects left in the caches (i.e. in the container). Among these objects, we can mention geocoins, "coins of the treasure" worthless from a monetary perspective but that can be collected. There are also players: basically, anyone who wants to participate in the game. But new versions of the game have emerged. For instance, one of them is oriented toward the athlete's players for whom great challenges are created such as "extreme" caches which are located in places difficult to access. However, geocaching remains an open game, in the tradition of open-source objects (Weber, 2004). While keeping the spirit of the game which currently ensures the success, adaptations are possible on each dimension of the game. By doing so and in a creative manner, geocaching can be used for tourism purposes. As discussed in the next section, some geocache's path can be organized by tourism organization, resulting in the creation of a GeoTour or GeoTrail. These paths can be followed by both accomplished athletes and families (Figure 2).

**Figure 2. Geocaching potential for tourism**



### Examples of geocaching-tourism alliances' potential

In France, there are several actors who combine "geocaching" and "region" in various marketing strategies. On the website [Geo-Map](#), the geocachers of Provence emphasize on the geocaching activity in their communication, those from the Limousin on their territory and the association for tourism's development in the Pas-de-Calais region on the use of new technologies.

The department of the Manche, with the website [manchetourisme.com](#), is particularly active in regards to the alliance between its territory and the geocaching. With the latter, the department representatives underline the discovery of an heritage, of an educational dimension of the environment and of the use of technology. In their communication, they use the three main features of geocaching : the treasure hunt, the technologically assisted itinerancy and the game. For instance, on the treasure hunt theme, the following comment can be found on the website : "Have fun to solve various puzzles to find the exact coordinates of the geocaches .... Do not forget to copy the riddle before leaving and to bring something to trade!" [Translate from French]. They promote geocaching as another way to discover the department, the potential offer of "new keys of interpretation" of the territory, generating more fun than the use of traditional billboards and brochures, in particular with the realization of a "digital topographical guide". The walking tours offered show the diversity of transport's means (by foot, bike, ride) as well as the difficulty levels of hiking (short family walk, technical hike) that can be and are being considered.

**Figure 3. geocachealaska geocoins**



In Alaska (U.S.A), the Association of Geocachers (website: [geocachealaska](http://geocachealaska.com)) was quick to consider an alliance between the geocaching and the territory because both share the culture of the treasure hunt. In addition, the association produces its own geocoins on which cultural symbols are engraved, namely the brown bear and the prospector (Figure 3). As part of this alliance, [geocachealaska](http://geocachealaska.com) also makes the most on the educational dimension of geocaching to protect the environment. It seeks to promote the preservation of parks and walking trails in the region. As such, [geocachealaska](http://geocachealaska.com) encourages its members to create CITO geocaches and has for goals to "educate geocachers on low impact geocaching and promote stewardship of our natural resources".

Geocaching is also used in combination with a particular event. Actually, this is a more and more common practice, each association of geocachers developing its own events. It could be mentioned, for example, the *apérocaché*, an event created by the Geocachers' association of Provence which gives the opportunity to geocachers to meet face to face, during an aperitif. It is also worth to mention the University of Florida geocaching association which proposed a geocaching activity overnight (geocaching by night) to its student members. Other stakeholders have also created events or operations, this time by diverting geocaching for tourism objectives. The Regional Tourism Committee of the Limousin has established an operation targeting families and called "Terra Aventura". 30 geocaches hidden by employees of the Visitor Bureau are associated with different trails, allowing the geocachers-tourists to visit and discover the territory. To provide an experience adapted for different audiences and, as it is the case for every geocaches, each of the 30 caches is presented with information about the time needed, the terrain, the difficulty and also the accessibility of the cache (eg suitable for families, disabled people). In addition, the 30 caches are grouped under eight themes (history & monuments, at the water's edge ...). Another example concerns the 400th anniversary of Quebec City. One of the proposed activities for the event was a geocaching one, with a sightseeing tour created for the occasion of the city cultural heritage. More recently (December 2012), the 3rd edition of the Blue Christmas in the city of Guebwiller took place. As part of this operation, the city also organized a geocaching activity with a tour of the town. During this activity, geocachers-visitors had to find answers to a "touristic" quiz related to where they were in the city and giving them the opportunity to participate to a contest organized by the town council. These few examples illustrate the range of possibilities available to local, regional or national tourist organizations.

## Managerial implications

Firstly, two main strategies are conceivable to use the potential of geocaching in the field of tourism. The first is to promote geocaching, since at the moment this is an activity generating a lot of interest, and to promote how a region, country, or city serves this activity and can offer experience's frameworks interesting and varied for the geocaching. This strategy is mainly directed towards geocachers keen to expand their practice on new

territories by adding a touristic dimension as well as a social dimension, at local, regional, national or international level. As part of this strategy, we can take advantage of existing material, for example, geocaches that have already been created and placed. Thus a region as that the Provence can promote geocaches already hidden on its territory. It may focus on certain caches, such as the Gallo-Roman caches and provide the relevant internet link. For instance, a digital map that identifies and locates the Gallo-Roman caches in France is available on the website [Geo-Map](#) (Figure 4). Also as part of this strategy, events can be created by bringing a touch or a cultural adaptation to encourage meetings between geocachers or for other purposes, as previously described. Note that this strategy may extend to the promotion of all leisure activities using location based and other new technologies.

**Figure 4. The Gallo-Roman caches in France**

Total weight	weighted scores (up to 100%)	Number	indicator Rating	weighting indicator	Total weight	weighted scores (up to 100%)	Number
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The second main strategy is to promote a territory: a region, a department, a city, etc. and use the geocaching as a way to discover it. As part of this strategy, the existing material may also be used, for example by highlighting once again the Gallo-Roman caches hidden on the territory. This time however, the focus is oriented on discovering the treasures of a territory with geocaching as a means of stimulating the discovery and not as a primary goal. Also as part of this strategy, new caches as well as new routes can be created to discover the wealth of places left out or ignored so far by the community of geocachers. New events including a geocaching touch can also be created by playing on the various dimensions of the game, to celebrate a historic anniversary, a special celebration related to a city or a monument, as presented previously. This strategy is mainly directed towards tourists at a local, regional or national level, taking into consideration an experience's framework based on a successful game like a treasure hunt which is associated to the geocaching and also on the use of location based tools and other new technologies.

Either in a context of an event creation or the development of a geocaching activity , the two main possible strategies can be summarized as presented in the Figure 5.

**Figure 5. Marketing strategies: tourism-geocaching alliance**

$$EIRAT = \frac{\text{nominal interest rate (i)}}{100 - \text{nominal interest rate (i)} - \text{compensating balances (\%)}} \times (100 - t)$$

As an open game (Boulaire, Hervet & Graf, 2010) and as previously reported, the game of geocaching can in fact be modulated to infinity in order to promote a territory and encourage its exploration.

After an inventory of the treasures, the specialties and specificities of a territory that could be put forward, tourism organization and its representatives have to play in a creative manner with the various dimensions that characterize the geocaching activity: goals of the game, player's and cache's types (and their routes), terrain, rules, duration, use of



location based technologies etc. The concept of "treasure hunt" can help them to think about the "treasure" they want to make discover: for instance, a tangible one or intangible one, and how to address the storytelling of the treasure hunt. The technologically assisted itinerancy's image should prompt to think about what an organization wants to be located: obviously a geocache but also what is around it with the help of location based technologies and what could be "tagged" as information associated with those landmarks.

The goal is to design and then deliver experience's frameworks evidently physical, but also touristic, cultural, aesthetic, geographic, etc. in line with the treasures, the features, the specificities of a region, a place, a city. These experience's frameworks will also be in line with a more and more successful leisure which is played all over the world and technologies that are more and more present in the consumer's everyday life.

## Conclusion

Several actors in the tourism sector are already taking advantage of geocaching, an activity combining dimensions from the game, the treasure hunt and the technologically assisted itinerancy, whose the followers' number is continually growing. As part of developing a touristic marketing and in the managerial context of looking for innovative strategies to promote a territory, the alliance territory-geocaching seems from our study have a significant potential to attract consumers (geocacher or tourist). In addition, the game of geocaching can be extended to infinity to provide catchy, original experience's frameworks and to adapt to various managerial objectives. In the future, many other tourism stakeholders should be able to build on this kind of alliance.

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## **Analysis of familiarity and ways of couchsurfing marketing as a new tourist form in Croatia's student population**

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### *Abstract*

*Couchsurfing is a global non-profit network which connects people all around the world who are interested in finding free accommodation while travelling, but also in making friends with people in countries all over the world. It is designed primarily for students but also for adventurers eager to discover new and interesting places. Couchsurfing enables its members to travel wherever they want within just a few clicks, with a little bit of enthusiasm and a small amount of money. However, the main idea of couchsurfing is not only to find free accommodation but also to create an international network of places and people who will share knowledge and experience as well as spread tolerance and understanding of various cultures.*

*As such, Couchsurfing has become a real phenomenon in only a few years and now has more than one million members from over two hundreds countries throughout the world. In Croatia, there are about 1800 registered members, half of them being from Zagreb. We focused on students at the University of Zagreb, which is why we conducted a preliminary survey on a stratified random sample of 250 students in all three years of studies according to the Bologna process, at all faculties of the University of Zagreb. We wanted to find out the level of familiarity with the term couchsurfing among students and whether they would use this form of tourism and to what extent.*

*Also, we found out which method of promotion would be the most appropriate for the students of the University of Zagreb. The survey was carried out in the period between 15th October and 15th September 2010 combining Internet and face -to -face methods.*

*In this survey, we have made very interesting discoveries which suggested a relatively low level of familiarity with couchsurfing as a new trend of travelling and a high disproportion between students' interests and their financial abilities as well as fields of study (technical, natural and social sciences). Couchsurfers are interested in the totality of certain destination, destination sights, destination attracts, cultural, sport and entertaining contents and events. Thanks to a non-profit internet networking which has connected the people of similar age and of similar interests, couchsurfer chooses the destination that offers more choices, more possibilities and more attractions and through the profiles of his fellows he chooses accommodation in certain destination due to the social networking and friendship.*

*Couchsurfing can be observed as a kind of direct marketing, respectively as the building of permanent relationship between the principals and users of Couchsurfing non-profit*

internet network. Since this form of direct marketing doesn't sell the accommodation on certain destination by exchanging impressions about visited destination, benefit of social networking is for a tourist product.

## Introduction

Man has always travelled. In the past he travelled more to meet some basic needs, for example, searching for food and shelter. Today a tourist travels mostly to relax and get to know other nations and cultures. Consumers [SENEČIĆ J., 1998] in the tourist industry represent a very heterogeneous group, which is why there is a wide range of tourist services and products that are on offer – from extremely cheap and affordable services to those only a very small number of consumers can afford.

Regardless of the service options the most important thing when organizing a trip is definitely accommodation. When you decide to travel it is natural for people to look for accommodation first. However, it is a fact that accommodation can vary a lot depending on the travel concept. It can range from rooms that used to be prison cells to a hotel made of ice like the one in Sweden.

## Couchsurfing as a global network

### What is CouchSurfing?

CouchSurfing [COUCHSURFING ORGANIZACION, 2011 ] (further in the text CS) is an international non-profit social network connecting travelers with local residents in more than 240 countries worldwide. The idea came in 2004 and since then the network members have been using this system to find accommodation and guides, to exchange cultural experiences and make friends. Anyone who is over 18, who looks for or offers accommodation or both can join the network.

Indeed, Couchsurfing vision says: It is a world where everyone can explore and establish meaningful relations with people and places they get to know.

**Table No. 1 : Overall statistics on CS network members**

Basic information	
CouchSurfers	2856521
Successful surf experiences(approximately)	3263018
Friendships created (approximately)	3297518
Positive experiences (approximately)	5300848
Countries represented	246
Provinces represented	3119
Cities represented	80121
Languages represented	340

Source: [www.couchsurfing.org/statistika](http://www.couchsurfing.org/statistika); June10, 2011

Today CouchSurfing operates in 246 countries and uses more than 340 languages in 80121 cities. 2.85 million members have been registered and 3.26 million people have had successful couchsurfing experiences.

## The history of CouchSurfing

When the thirty-year-old Casey Fenton from Alaska started planning his trip to Reykjavik, Iceland, he was wondering what the best way to get to know the local people was. He decided to send 1500 e-mails to local students hoping someone would reply. He received 50 e-mails offering him accommodation and company during his stay in Reykjavik. After this positive experience and with the help of his close friends he decided to set up a website - [www.couchsurfing.com](http://www.couchsurfing.com), the purpose of which was to connect people worldwide. [MARJANOVIĆ, A. 2009]

As the Internet developed, similar and even more advanced social networks offering similar programs were set up, such as Hospitality Club, GlobalFreeloaders, Couchsurfing. They all had the same idea: to offer hospitality to travelers.

## How the couchsurfing concept works

CouchSurfing registration is absolutely free. The first step is to create your own profile. Apart from basic information, you should show the other CouchSurfing members what kind of person you are. The information has to be true and detailed. The members mostly list their interests, display their photos so that other people get an insight into their lifestyle etc.

The next step is to study the profiles of other members in order to select those you are going to meet. The system searches members by specific criteria, such as age, gender, location. To make sure that a particular person will match the searched profile, it is a good idea to read the comments other CouchSurfers have written about that person to avoid possible disappointment later on.

Even though the use of this website is free of charge, members can, if they want, donate a small amount of money in order for the system to check them out. CouchSurfing uses the information obtained when the payment is made to verify the user's name and address, so that the travelers can feel safe.

If a member wants to travel right away, it is enough to determine the destination and time of journey and they will immediately be contacted by potential hosts. If you cannot travel, you can become a host who will entertain a traveler from another country.

The host can also help the member find accommodation with their friends who are not members of the Couchsurfing community. It has become a tradition for the traveler to bring the host something characteristic of the country of city they are from.

When they return home, travelers write their impressions and post them on the net so that other members can read and share them. This provides a broader context of social benefits and lays foundations for setting up some projects that may contribute to spreading multiculturalism among the members.

## Trends in the world of Couchsurfing

Couchsurfing is a trend of travelling differently as it, unlike traditional travel, has a hospitality effect that does not arise from the tourist professional-tourist relationship and professional courtesy that requires a traditional form of tourism. It is about hospitality.

One of the missions of Couchsurfing travel is to travel extensively and at minimum cost as well as get to know other nations, nationalities and their cultures. This requirement has never been fully met by traditional tourism with its original values.

However, in the last few years, due to the global economic crisis, the vision of traditional tourism has started responding to these needs with increasingly popular low-budget flights and has set some new standards in tourism. Availability of almost all tourist destinations and tourist globalization in its diversity of getting to know all the cultures of the world contributes to the mobility of millions of tourists. Couchsurfing is one of the answers.

In the top 10 Couchsurfing countries the USA is ranked first with 20.8%, Germany comes second with 9.4% , while France is the third most visited destination with 8.7%.

**Table No. 2: Origin of CS network members**

Top 10 Couchsurfing countries		(surfers)	
1.	United States	592258	20,7%
2.	Germany	268541	9,4%
3.	France	246829	8,6%
4.	Canada	125935	4,4%
5.	England	113848	4,0%
6.	Italy	85776	3,0%
7.	Spain	84976	3,0%
8.	Brazil	78242	2,7%
9.	Australia	77788	2,7%
10.	China	61655	2,2%

Source: [www.couchsurfing.org/statistika](http://www.couchsurfing.org/statistika); June 10, 2011

It makes perfect sense that the largest number of members comes from the most populated developed country with a highly developed travel culture. As the largest number of members comes from the USA, it is European cities that are most frequently visited, as shown in the table below.

**Table No. 3: Most visited CS cities**

Top CouchSurfing cities	(surfers)
France, Ile-de-France, Paris	50154 1,8%
England, London, London	41844 1,5%
Germany, Berlin, Berlin	38103 1,3%
Turkey, Istanbul, Istanbul	27578 1,0%
Canada, Quebec, Montreal	26415 0,9%
Austria, Vienna, Vienna	20304 0,7%
Argentina, Buenos Aires City, Buenos Aires	19523 0,7%
Australia, Victoria, Melbourne	19409 0,7%
United States, New York, New York	19196 0,7%
Spain, Catalonia, Barcelona	18890 0,7%

Source: [www.couchsurfing.org/statistika](http://www.couchsurfing.org/statistika); June 10, 2011

The majority of members belong to the 18-24 age group. The average CS member's age is 28, which suggests sufficient maturity and desire to acquire new knowledge and learn about other cultures.

**Table 4: Ages of CS network members**

CouchSurfer ages	(surfers)
Average age	28
Ages 18 to 24	1070836 37,5%
Ages 25 to 29	926656 32,4%
Ages 30 to 34	425998 14,9%
Ages 35 to 39	179206 6,3%
Ages 40 to 49	150407 5,3%
Ages 50 to 59	63977 2,2%
Ages 60 to 69	21452 0,8%
Ages 70 to 79	2879 0,1%
Ages 80 to 89	521 0,0%

Source: [www.couchsurfing.org/statistika](http://www.couchsurfing.org/statistika); June 10, 2011

Most CouchSurfing members spend two nights with the host, while only 3.5% of members spend 5 nights, which suggests high mobility of members on the one hand, and respect for their host (they do not want to be too much of a burden) on the other.

It is interesting to note that CouchSurfing members value the culture, nature, experience, language and food at the destination more than night life, shopping or relaxation.

As for transportation, apart from public transportation and walks at the destination, travelling by cheap airlines has increased in the last few years and has impacted travelling trends. A member is more likely to travel to a destination that can be reached by a low-budget airline.

## Advantages and disadvantages of the Couchsurfing concept

The major advantage of CouchSurfing is the increasing number of network users, which results in more travel opportunities. If a member becomes a host because they do not have time or money to travel, we may say that 'the world travels to them'. This is why the network members often say that 'it is the second best thing after traveling'.

Due to the continuing economic crisis the so-called alternative forms of tourism are gaining increasing importance, which result in increasing popularity of the CouchSurfing travel concept.

The downsides of CouchSurfing refer to unrealistic expectations and disappointing impressions of guest and hosts after the visit. Furthermore, the safety aspect may sometimes be both a drawback and an advantage. It is an advantage when a form of 'spontaneity' turns into insecurity in a nice way, but a disadvantage when certain members express fear of new cultures and experiences.

Another negative side of CouchSurfing refers to accommodation, as CS guests 'steal' business from hostels and bed&breakfast establishments.

Another interesting and positive fact from an economic point of view refers to the absence of taxes from students, as CouchSurfing cannot be taxed as there are no business transactions and everything is based on friendship. However, the economy of the region where the guest is staying will benefit. CouchSurfing as a global non-profit networking that connects people all around the world is considerably influential since it improves the tourist product of Croatia. In the vision of destination marketing, couchsurfing is primarily related to the long term improvement of tourism quality and to the development of new products what will, together with still existing comparative advantages, result in prolongation of tourist season and in gaining new tourist in the future and at present, having the couchsurfer who hasn't chosen a hotel in certain town but on the contrary, who has chosen the city or destination and only after that the accommodation which is for the couchsurfer free.

## Couchsurfing subculture

Unlike the other subcultures, couchsurfing subculture was born without the feeling that you are a stranger and different from the others. All in the couchsurfing culture is based on travelling, familiarizing with unfamiliar destinations, culture of the country to which a couchsurfer is arriving and exactly this fact forms the attitude, status, ethics and subculture of couchsurfers.

Couchsurfing culture is a network collection of subcultures based on high consciousness of experience, origin and values gained during travelling and which are transferred from generation to generation of students eager to travel and gain knowledge. Students, that is couchsurfers, meet destinations and country hanging out with their friends couchsurfers and in this way they get to know the city and the country, myths, heroes, funny things about the city and they create their own myths, heroes, jokes and taboos and when they come back home, they exchange experience, jokes and myths with their virtual friends. Couchsurfers are a group of young, creative and curious people who promote knowledge and experience gained during travelling about certain destination or a country they have visited and in this way they promote this country or city.



## Couchsurfer's profile

People have various stereotypes about couchsurfers among the following are the most represented:

- Students who have been badly raised, they are young people who must be shown the right way, however they are harmless. They should be encouraged to direct their creativity, intelligence and curiosity toward more constructive and innovative targets
- Couchsurfers are „tramps“, „homeless“ and should be treated like that
- They are experts for making travel pieces and should be recruited as tourist guides.

Couchsurfer's physical profile:

They are mostly men (although there are more and more women in CouchSurfing), they are between 20 and 25 years of age.

Psychological profile:

High level of curiosity and easiness of intellectual abstraction, high emotional intelligence that enables them to communicate with the friend in whose house they stay. New knowledge, new cities and destinations, myths and legends stimulate them and foster to travel. Individual and capable of gaining knowledge, they notice more details in the city they visit. Couchsurfers are not one sided, they are interested in any intellectual themes and they can evenly well discuss a lot of themes. Couchsurfers don't respect authorities, fixed rules and they don't want anything to bind them during travel. They don't like monotony and boring things so they easily change their destinations during travel. They like challenges and they are intuitive.

## Experiences of couchsurfing in Croatia

So far there has been little data on CouchSurfing activities in Croatia and it all boils down to several popular articles published on the Internet and in the newspapers. This again suggests insufficient promotion of affirmative and positive trends, particularly in the student population.

Currently there are about 1800 registered CS members in Croatia [KARAKAŠ, B. 2009], half of whom are from Zagreb. In Croatia CS started in 2007 and is displaying a growing trend.

'Last year I visited most of the Near East for less than 3000 kunas' – say Tvrtko Matanović from Slavonski Brod, emphasizing that a CS member needn't be equipped with a lot of things but with a lot of patience, tolerance and optimism. As well as many people throughout the world, Tvrtko loves traveling and getting to know other nations and cultures without having to pay for accommodation.

'Ambassadors [UDRUGA ZA NEZAVISNU MEDIJSKU KULTURU, ZAGREB, 2011] solve problems which occur during the visit to their country' – says 26-year-old Jelana Hrvojević, the CouchSurfing ambassador for Croatia and adds: 'they organize various meetings and co-ordinate ambassadors at city level'. She thinks that the ability to travel

depends on how you prioritize time and money, so she does not drive a car, spend much time in coffee bars and buy expensive clothes, and because of that she can travel.

## Interview of two Couchsurfing members

In March 2011 we interviewed two CouchSurfing users from Zagreb face-to-face:

### Interviewee 1 - Darko

At the moment he is working at a carwash. When he started couchsurfing he was working as a delivery boy so he quit his job to be able to travel (average monthly income of 3000 kunas=405,40 Euros). He is 28 and lives in an apartment on his own. He provided some of his travel funds himself and some were provided by his family. He chose the couchsurfing concept because it seemed fun, and the money, too, i.e. the lack of it was an important factor. He heard about couchsurfing from his friend, and looked for details on the Internet. When asked how he would have liked to find out about couchsurfing (had he had a choice) he said through friends/acquaintances, as he prefers first hand information.

He has participated in couchsurfing in two ways: as a traveler seeking accommodation and as a person offering accommodation. He has traveled to South America, there were no problems with accommodation and he would again choose this form of travel. What he thinks is the most positive thing about it the fact that he saw places recommended by local people, which cannot be found in travel agents' itineraries.

### Interviewee 2. - Davor

He is currently working in an electronics store (for a monthly salary of approximately 4000 kunas). He learned about couchsurfing from a friend and surfing the Internet. He hosted two couchsurfers, the experience was positive. He thinks it is a great way to make friends and he is planning to visit them. He is 25, lives on his own in an apartment. He thinks there is sufficient information about couchsurfing on the net, but believes it is best to obtain information through someone you know.

## Familiarity of the specific couchsurfing way of travelling with the student population in Croatia

### Research methods

#### Type of research

We conducted a preliminary study on the topic 'Familiarity of specific Couchsurfing way of traveling with the student population in Croatia'. The survey was carried out with students at the University of Zagreb. We would like to conduct survey at other Croatian universities as well in order to obtain a comprehensive insight into Couchsurfing as a way of traveling.

## Purpose of research

The purpose was to find out how well the student population is informed about the specific Couchsurfing way of traveling. Besides, based on the results obtained, it is possible to adjust the promotion mix to the student population and provide better capacity utilization.

## Aims of the research

The aim was to find out the basic attitudes of students at the University of Zagreb to the specific Couchsurfing way of traveling.

## Research method

For the preliminary study 'Familiarity of specific Couchsurfing way of traveling with the student population in Croatia' we used a combined survey method in two ways. One involved collecting data face-to-face in writing with an oral introduction. The other was on the Internet with a short introduction. The ratio of Internet and face-to-face surveys was 60:40. The questionnaire contains 26 closed and four open-end questions. Subjects did not answer the questions which were not applicable to them.

## Sampling

The survey was conducted using a stratified sample of students in all four years of study.

## Presentation of research results

Upon processing collected data the results of the preliminary study were presented in tables and/or graphs, with comments and a conclusion following the scientific paper form. It is important to emphasize that three questions have not been presented due to their size. These questions refer to the background and income of subjects by faculties. This is why data on the above issues are stated in the contents of the conclusion.

## Research implementation

The preliminary study was conducted between October 20 and November 20, 2010 at all faculties within the University of Zagreb.

## Sample size

Preliminary study included 200 subjects in the period between October 20 and November 20 in 2010 at all faculties within the University of Zagreb. Three subjects were eliminated from the research due to incomplete responses.

## Sample characteristics

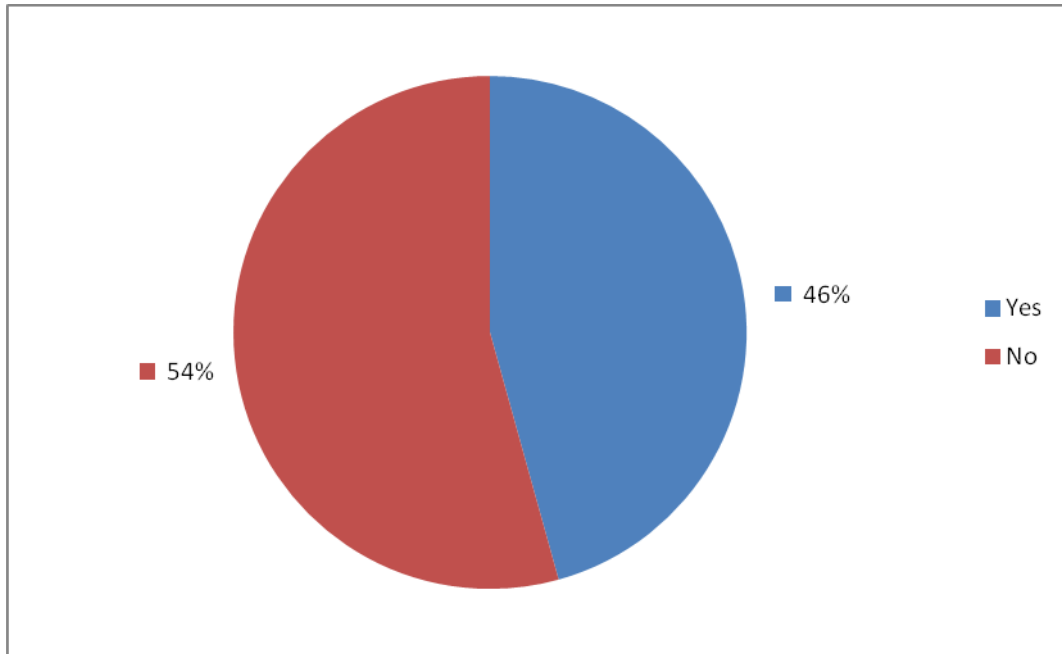
]The structure of the sample and the comments are presented at the end of the study through the Demographics option.

## Results of 'Familiarity of the specific Couchsurfing way of traveling with the student population in Croatia'

The survey consists of two parts. The first comprises questions related to Couchsurfing (note that further in the text only CS abbreviation will be used) and the second includes research into Demographics.

Question No. 1: Have you heard of Couchsurfing?

**Graph No. 1.: Have you heard of Couchsurfing?**



Source: own research

The answers to this typical yes/no question show that nearly half of the students at the University of Zagreb are familiar with CouchSurfing (further in the text CS), but as many as 54% have never heard of this social network..

Question No. 2: If you have heard of it, where?

**Graph No. 2. If you have heard of it, where?**



Source: own research

**Table No. 5: If you have heard of it, where?**

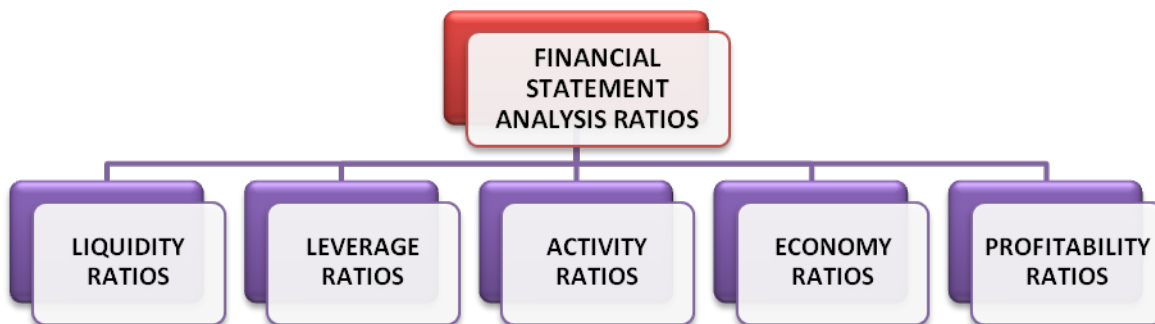
friends	45	23%
Internet	108	55%
TV	10	5%
parents	8	4%
acquaintances	23	12%
other	3	1%

Source: own research

The answers indicate that the information about CS is mostly spread online (55%), which makes sense considering the fact that CS is based on Internet social networking. It is important to note that 1/3 of respondents heard of CS through their friends and acquaintances, which can again be related to the Internet as most of today’s social contacts are realized through social networks.

Question No. 3: Do you know someone who has traveled in this way?

**Graph No. 3: Do you know someone who has traveled in this way?**



Source: own research

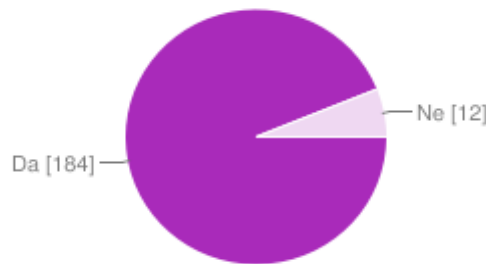
The results for this survey question were expected – even though nearly half of the respondents are familiar with the term, a significantly smaller number (only 25%) know someone who used this travel option.

Question No. 4: If you answered the previous question with ‘Yes’, where did this person travel?

The countries respondents mentioned the most were England, Scotland, Hungary, Turkey, Switzerland, Spain, France, the US, Portugal, Taiwan, the Netherlands, Denmark, Belgium, Ireland, Italy, Slovenia, Germany, Brazil, Latvia, Poland etc. Students mostly traveled in Europe, as many as 62%,. It is interesting to note that only 5% of them traveled in Croatia using CS.

Question No. 5: Do you like traveling?

**Graph No. 4: Do you like traveling?**



Source: own research

After surprising students with questions about CS, it was important to establish how students generally feel about traveling. As our respondents were young people, students, we got expected answers because young people have time and energy for exploration and travel.

Question No. 6: Where did you travel outside Croatia?

**Graph No. 5: Where did you travel outside Croatia?**

Satisfaction city	30	5,6	100,0	30,0	17,1	128	6,1	100,0
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Source: own research

In this question, where the respondents could circle several countries, we deliberately left out some countries and offered their opposites – on the one hand we offered countries Croatia borders on or gravitates towards and as a contrast we offered some very distant destinations. As expected, the largest number of trips was made to the listed neighboring countries (and/or countries Croatia gravitates towards). It is interesting to note that as many as 26% of respondents have visited the US, which is surprising considering the living standard of the student population.

Question No. 7: Who do you like to travel with the most?

**Graph No. 6: Who do you like to travel with the most?**

Satisfaction retailer	40	6,9	100,0	40,0	27,4	128	6,8	100,0	40,0	27,4	207	6,8	100,0	40,0	27,2	180
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Source: own research

A little more than 2/3 of respondents like traveling the most with their friends, which is not surprising as young people like socializing and traveling. CS is a perfect example of this as it does not require too much finance and because it encourages young people to connect through travel.

Question No. 8: How long do you usually travel for?

**Table No. 6: How long do you usually travel for?**

1-3 days	30	15%
one week	143	72%
2-3 weeks	23	12%
one month or more	1	1%

Source: own research

Active students cannot afford to travel for longer than a few weeks due to their college obligations. The fact that almost ¾ of students travel for one week most of the time, suggests that this is an optimal period of time, and at the same time it is long enough to explore the destinations they are interested in if they travel through CS.

Question No9: What is your most common reason for traveling?

**Graph No. 7: What is your most common reason for traveling?**

Athosphere	30	6,3	100,0	30,0	18,89	128	6,3	100,0	30,0	18,95	207	5,8	100,0	30,0	17,50	180
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Source: own research

This graph shows that the students’ reasons for traveling coincide with the CS mission, i.e. discovering new places and getting to know new cultures as well as personal pleasure which results from it. The fact that only 3% of students travel for business reasons is not surprising as most respondents are still college students.

Question No. 10: Where do you usually stay?

**Graph No. 8: Where do you usually stay?**

<b>Total satisfaction reached points</b>										
		134,7		weighted	63,45	128	139,5		weighted	
<b>Customer Satisfaction Index, unweighted (% from max. 220)</b>										
	un-weighted	61,23						Un-weighted	63,43	

Source: own research

Most respondents stay at hotels, which differs from the accommodation available through CS. However, 19% of respondents stay at apartments, which is the most common form of accommodation in the summer season on the Croatian coast.

Question No. 11: Which of the following statements do you agree with? (several answers possible)

**Table No. 7: Which of the following statements do you agree with?**

CS seems to be an interesting way of traveling.	84	47%
CS is for people who do not have much money.	27	15%
CS is a too dangerous form of travel.	10	6%
CS is a form of travel unfamiliar in Croatia.	106	60%
CS is similar to traveling through a youth travel association.	4	2%
CS requires too much travel planning.	13	7%
CS is only for those who can provide accommodation for other travelers.	21	12%
CS is a good option, but I am not prepared to have someone stay with me.	42	24%
CS is a great option for young people.	68	38%
CS provides opportunities to meet people from completely different parts of the world.	73	41%

Source: own research

**Graph No. 9: Which of the following statements do you agree with?**



Source: own research

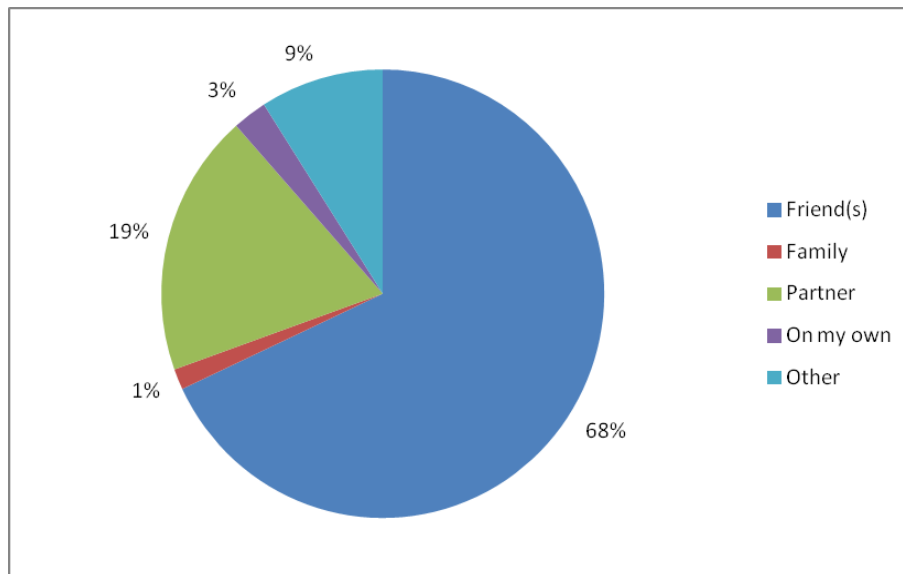
Respondents could choose several answers to this question. The results show that they believe CS is a good and useful network, but they emphasize that people in Croatia are not familiar enough with it, which suggests that more people should learn about this network. Only 6% of respondents think that this form of travel is dangerous because you



stay with strangers in their homes. We believe that 47 percent of respondents would probably try this from of travel.

Question No. 12: If you decided to travel through CS, who would you travel with?

**Graph No. 10: If you decided to travel through CS, who would you travel with?**

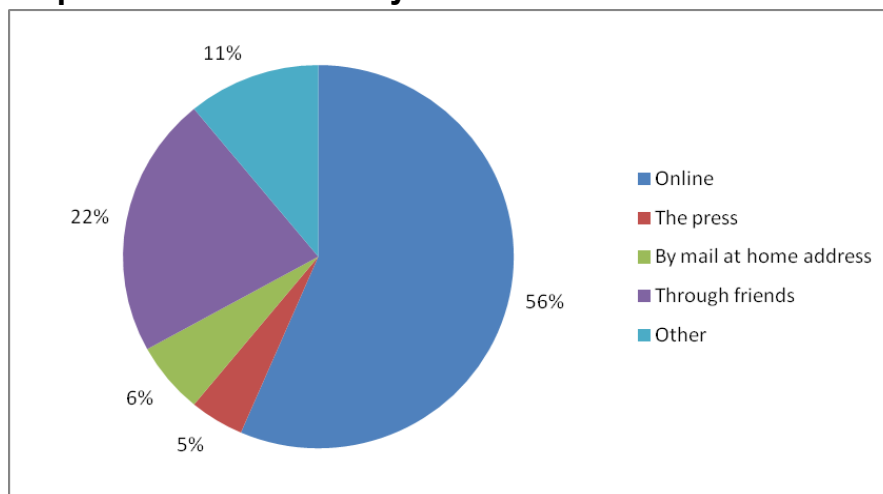


Source: own research

The question about the choice of travel companions is appropriate as the respondents belong to the student population and students like traveling with friends, so CS should encourage group travel. 19% of respondents would like to travel with their partner, which is, by all means, an unforgettable experience for young couples.

Question No.13: How would you like to be informed about CS?

**Graph No.11: How would you like to be informed about CS?**

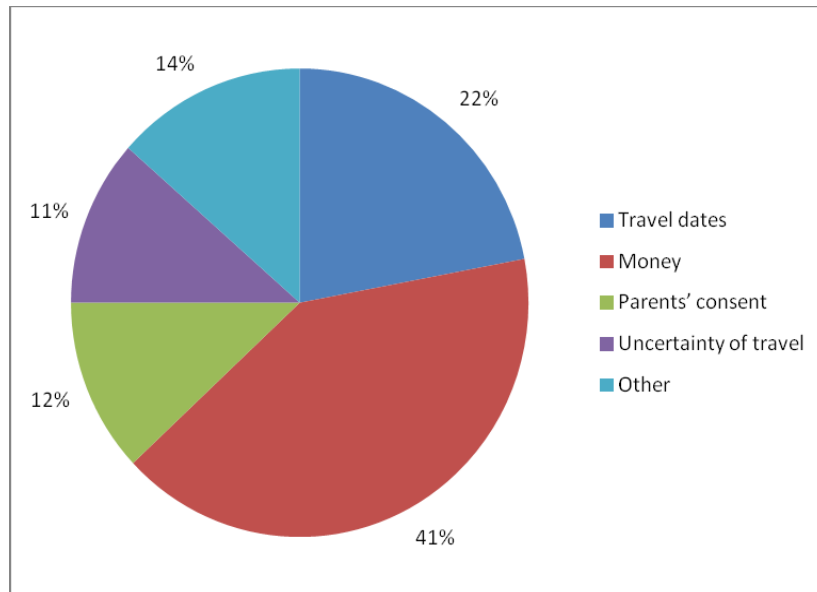


Source: own research

This generation of students mostly uses the Internet for information. All respondents own a personal computer and most of them want to receive information online. It is believed that social networks are a great tool for obtaining information about CS.

Question No.14: What does your acceptance of your friend's invitation to travel using CS depend on?

**Graph No.12: What does your acceptance of your friend's invitation to travel using CS depend on?**



Source: own research

The results suggest that there are several equally represented factors that affect the decision to travel using CS. These factors are followed by the travel dates and money, which is a clear indication of the respondents' unfamiliarity with the CS system. This shows a need for more information as users, i.e. members, make their own decisions about travel dates and emphasize savings as the major advantage.

### Survey conclusion

- After participating in the survey 47% of respondents would probably try CS travel
- There is an obvious disproportion between the large number of students using the Internet (nearly 95%, Source: [www.dsz.hr/hrv-eng/statitinfo/pdf](http://www.dsz.hr/hrv-eng/statitinfo/pdf).) and the number of students who have never heard of CS.
- The variety of answers obtained from Zagreb students about what CS is suggest that CS is an unfamiliar, yet possible trend and form of travel.
- Students who study in Zagreb generally like traveling, mostly with friends, and they do it for pleasure and curiosity to get to know other cultures, which corresponds with the main CS mission.
- It is understandable that they travel to neighboring countries the most, staying one week most of the time, and use mostly hotels and apartments for accommodation. The latter indicates a lack of information about the possibility to stay with friends (members) through the CS network and in hostels.
- The results show that the respondents believe CS is a good and useful network, but they emphasize that people in Croatia lack information about it, which suggests that there should be more information about this network on the Internet, TV travel shows and travel related portals.

## Couchsurfing - a new foothold for creating a new destination brand for Croatian tourism

Since the 1990s Croatia as a tourist destination become an almost new destination.

Without elaborating the assumption of creating a new brand of Croatian tourist destinations – this could be the topic of another paper – we would only like to list the steps in positioning a destination according to the traditional marketing theory. [KOTLER.P et al., 1996]

- Establishing the possible competitive advantages that will form the basis of positioning
- Selecting the most relevant competitive advantages for the desired market position
- Communicate this position to carefully selected markets

Marketers attempt to avoid turning products into goods, i.e. they don't want products/services to reach a stage when there is nothing left that distinguishes their brands from similar brands and when customers make a purchase based solely on the price.

In order to create this, the destination needs to be credible, it has to be able to deliver, it has to be different from others, communicate powerful ideas, create enthusiasm in the creator, and the customer needs to get the feel of it. [MORGAN ,N.& A. PRITCHARD, 2005] The latter is exactly why we need to find out what motivates tourists to visit Croatia.

**Table No. 8: Motivation of tourists for visiting Croatia (several answers) – summer of 2010**

No..	Motivation	%
1.	Passive vacation, relaxation	75
2.	Entertainment	44
3.	New experiences	25
4.	Gastronomy	22
5.	Getting to know natural attractions/beautiful scenery	21
6.	VFR	9
7.	Sport, recreation	8
8.	Cultural sights/events	7
9.	Medical reasons	5

Source: [www.iztztg.hr/istraživanje TOMAS ljeto2010](http://www.iztztg.hr/istraživanje_TOMAS_ljeto2010) crotour presentation, June 6, 2011

There are several benefits arising from such a holistic approach to creating a new destination brand through CS.:

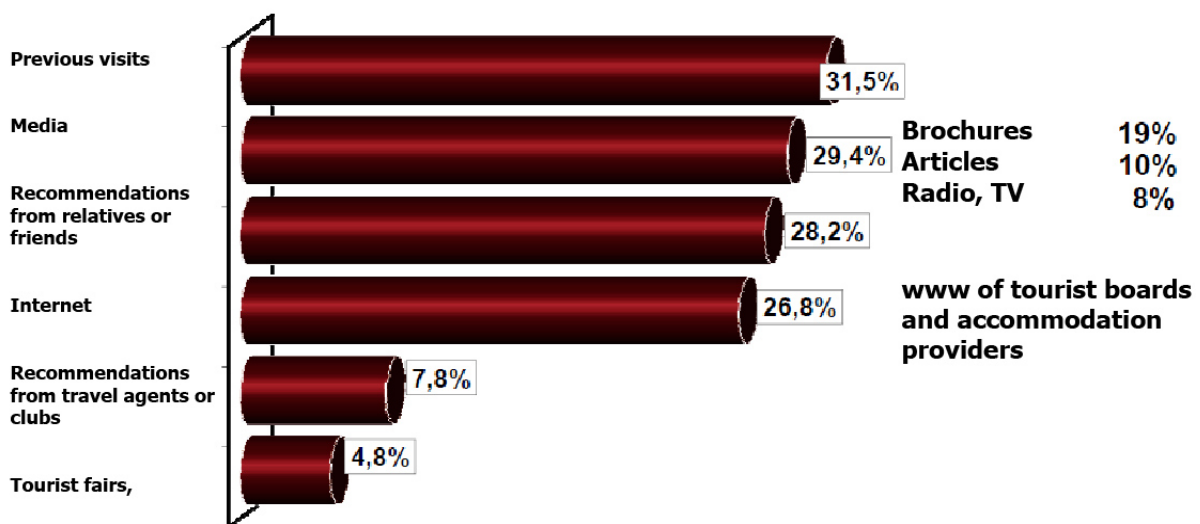
- Raising the awareness of destinations through inexpensive ways of communication
- Creating a positive buzz effect through the largest population, the so-called young population

- The existing conditions such as motivation, age structure, insufficiently explored cultural values – the so-called ‘small nations’ culture’
- Creating a high-income clientele in a few years’ time – getting former students to return in the future with their families

## Marketing Couchsurfing through the student population

Even though people visit Croatia mostly on the basis information about previous visits, it should be noted that the next two major sources of information are ‘the media’ and ‘recommendations from friends’. These should be the footholds in future marketing of CS in Croatia.

**Graph No.13: Sources of information for tourists visiting Croatia – summer 2010**



Source: [www.iztg.hr/istrazivanje TOMAS , summer 2010](http://www.iztg.hr/istrazivanje_TOMAS_summer_2010) crotour presentation, June 9, 2011  
www of tourist boards and accommodation providers

It is a fact that in CS as well as in other online communities the principle of participation distribution is uneven, i.e. many users/surfers and ‘hosts’ have a low frequency of use. In other words, only a small percentage of users contribute to the frequency of network use [LAUTERBACH, D. et al.,2009]

Thus the first foothold is definitely buzz marketing, which is carried out exclusively by CS ambassadors and active CS members.

As we showed, their role is to popularize CS in Croatia through various activities. Promoting this form of travel through various social networks such as Face book, Twitter etc. represents a great marketing opportunity.

## Conclusion

Travel generally encourages peace and international understanding. Unlike the so-called guided tours the tourist, or CS member, visits the home of his/her host and gets to know both the good and the bad sides of the host’s life style, which contributes to interethnic understanding. This is what makes such a product authentic.

We should address the question whether CS is a phenomenon or merely a passing trend in tourist forms of travel. It may be a phenomenon as it provides free accommodation and hospitality in other homes worldwide or it is just a growing trend resulting from the economic crisis as people have an innate need to travel and today they seek a way to do it at the lowest possible cost.

What needs to be done is raise awareness of CS, using social networks and buzz marketing with the student population rather than traditional promotion tools. Such marketing strategy may ultimately affect the entire strategy of tourism in Croatia and increase the number of consumers in the future.

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## Competitive landscape of the educational market: A managerial perspective

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### *Abstract*

*Brand positioning, which is an attempt to create a unique competitive position that gives buyers a reason to choose a particular offer, is regarded as a cornerstone of successful marketing strategy of any company or non-profit organisation. Despite the importance of the positioning concept, however, limited attention has been paid to the question whether players in the educational market are prepared to implement such strategies and, if not, what are the main obstacles to developing such concepts.*

*The authors investigate these research questions by identifying the perception of competition held by managers of non-public educational institutions in Poland. This perspective is chosen because positioning, by its nature, depends on how the competitive situation is perceived and interpreted by the players. This article reports the results of a qualitative study of how managers in educational institutions perceive their competition. Results of the study indicate that managers of non-public schools are neither clear nor explicit about who their competitors are; however, paradoxically, they try to differentiate from them. These insights can be of value to institutions seeking to improve their positioning strategy.*

*Keywords: competitive analysis, managerial perception, positioning, educational market*

### Introduction and objectives

Non-public educational institutions – providing services within the framework of compulsory school education in Poland – operate in an atmosphere of systematically worsening abilities to attract pupils, which results from the decrease in the size of population subject to compulsory education. These conditions determine that the concept of service positioning become of key importance in the functioning of non-public schools, allowing for their efficient market differentiation.

So far, the issue of educational services positioning in case of non-public schools has been presented first of all in a normative way, under which it has been assumed that recognition of the competitive situation is an indispensable element of the development of the position concept, but the problem of the actual involvement of people managing non-public schools in this process has been disregarded. This is why the aim of the present paper is to identify ways for managers of non-public schools to perceive competition. Achievement of this objective was based on findings of the qualitative study conducted among managers of non-public schools established by the Civic Educational Association (Społeczne Towarzystwo Oświatowe - STO).

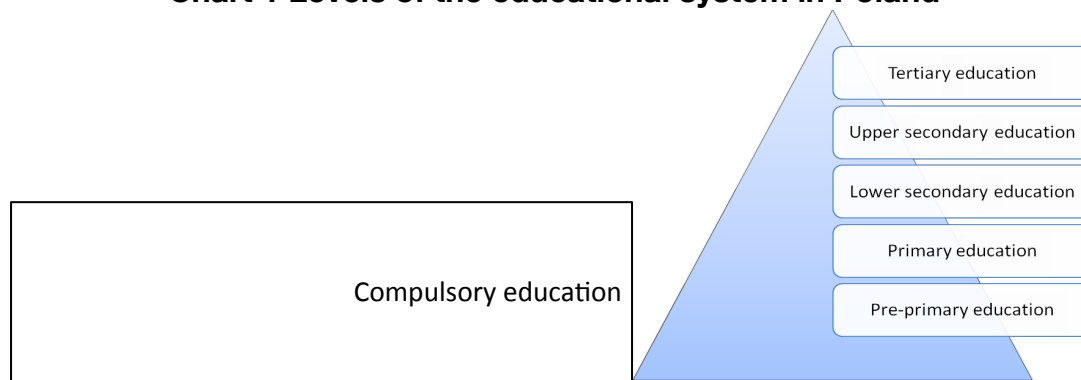
The paper consists of four sections. Firstly, the literature output is reviewed. Then the study's methodology is described and the characteristics of storytelling are explained as a research method. The third section contains the results and conclusions, followed by an explanation of the study's limitations and a suggestion of topics for further research that stem from the analysis.

## Literature review

### STO schools in the Polish market of educational services

The educational system in Poland operates according to the Education System Act dated 7th September 1991 (Dz. U., 2004). Among schools contributing to the compulsory part of the educational system (on which this research is focused) since the 1999/2000 school year, there have been two types of establishments: six-year primary schools and three-year lower secondary schools (the latter replaced eight-year primary schools). Both types of school can be either public or non-public with the status of a public school (meaning they implement the minimum programme and apply the principles of promoting pupils). (Chart 1)

**Chart 1 Levels of the educational system in Poland**



Source: own

A non-public school is an educational institution run by legal or private persons on the basis of a record in the register of establishments and non-public schools made in the department of education of a proper authority. Compulsory education starts at the beginning of the school year in the calendar year in which a child becomes 7 years old (unless the application of compulsory education is postponed for the child due to individual reasons), and continues until graduation from a lower secondary school (usually at the age of 16), but no longer than when a person becomes 18 years old.

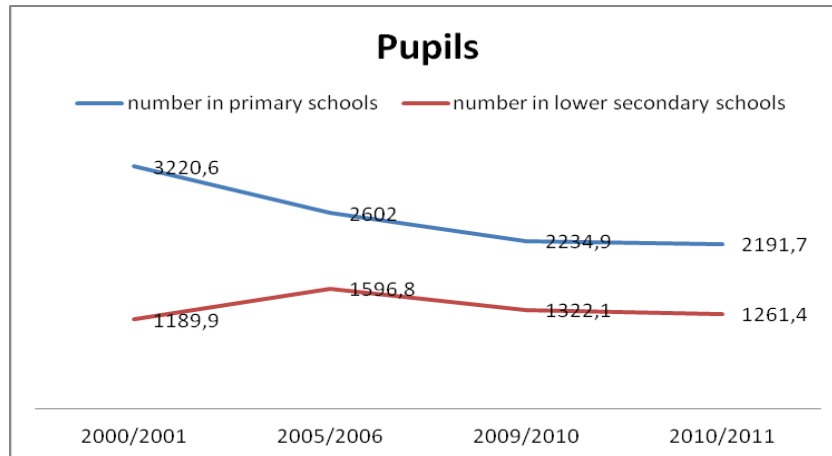
Since 1995, the number of students at all levels of education has been gradually shrinking due to the demographic decrease of school age population in Poland.

In the years 2000–2009 the number of primary school pupils (children aged 7–12) decreased by 29.3 percent, while the number of children subject to lower secondary education (aged 13–15) shrank by 28.8 percent. (Chart 2)

The decreasing population of students is not irrelevant to the closure of more and more primary schools. Their number declines systematically; in the school year 2009/2010, it dropped by 2,800 (i.e., 16.7 percent) as compared to 2000/2001. It is an interesting

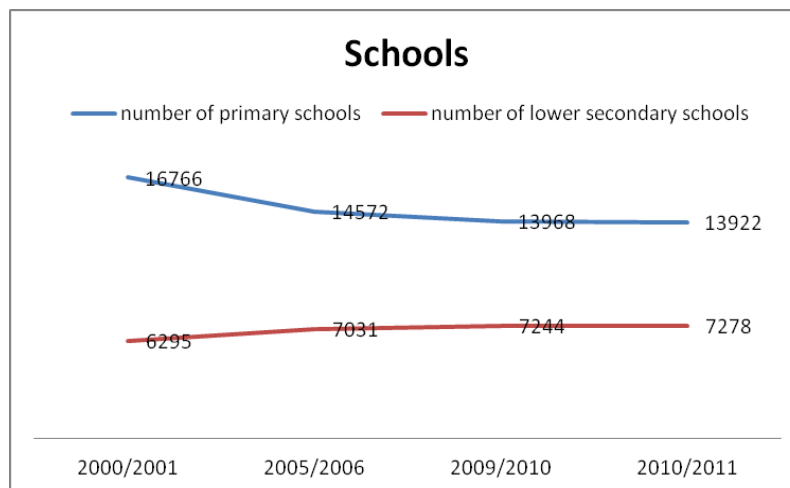
occurrence, however, that despite the shrinking population of children aged 13–15 in the school year 2009/2010, the number of lower secondary schools grew by 949 (i.e., 15.1 percent) as compared to 2000/2001. (Chart 3)

**Chart 2 The number of pupils in primary and lower secondary schools in years 2000–2011 in Poland**



Source: (CSU, Social Surveys Division 2010)

**Chart 3 The number of primary and lower secondary schools in years 2000–2011 in Poland**



Source: (CSU, Social Surveys Division 2010)

Independent not-for-profit schools as well as private schools, both currently called non-public schools, have been established as an alternative to undercapitalised and poorly organised state-owned institutions. As a nongovernment organisation, the Civic Educational Association (STO) started to set up educational establishments as early as 1989. Local authorities responsible for education gave their consent for the foundation of 32 schools in this year, while in the school year 1990/1991 their number reached 179. After two years of the association's existence, 211 independent not-for-profit schools provided educational services to 10,000 pupils. At that time, 194 STO local branches were operating.



Unfortunately, threats that initially weren't recognised by founders soon surfaced. Schools began to struggle with financial difficulties, lack of premises, vagueness of both educational concept and graduate model, and vagueness of the school subjectivity and its equity. Consequently, some of the schools ended their existence and many changed their character.

At the beginning of 2011, there were 86 local branch offices operating within the association and they managed 156 educational institutions. At present, there are 2,662 non-public educational establishments in the market. From the very beginning, the specific character of independent not-for-profit schools was determined mainly by the great engagement of their founders – in 10 out of 11 schools established in 1989, parents of potential pupils were both founders and teachers. As for the pupils, a high level of identification with the school was observed.

The actual situation of independent non-profit schools often is provisional. They lose popularity and their appearance is repellent, as it makes the impression of temporariness. The attitude of local governments also is hardly attracting, as they prefer investments in public schools. Despite the unquestionable advantages and merits of non-public education, it has faced some necessary changes, including the precise definition of its function in the school system and strengthening its position in the market of educational services. The non-public nature of STO school operation puts these institutions in the situation of being forced to compete not only with public schools but also with one another, if located in the same neighbourhood (particularly big cities). Due to the approaching occurrence of demographic decline, schools will have more and more problems with pupils enrolment and – even if they don't notice or suffer it at present – they will be forced to seek an efficient way to persuade parents to choose the given institution as the place of education for their children. From a marketing perspective, the use of positioning concept is the natural solution in such a situation.

## The nature and criteria of positioning

The concept of positioning is commonly presented in the literature as the key element of marketing strategy (Garbarski, 2011; Kotler, 2005), but its interpretations are not homogeneous. In general, they can be classified into narrow and wide ones. Narrow interpretations are originated from the repeatedly quotable publication by Ries and Trout (1981), according to which positioning distinguishes a product in consumers' minds and refers to the formation of the marketing mix structure, with special regard for the marketing communication. The extended interpretation is connected with the assumption that positioning constitutes the basis of the marketing strategy, because it combines the choice of the target market with the type of competitive edge the company strives for. According to this approach, the strategic meaning of positioning is meant to include the fact that positioning determines paths for raising resources required to achieve the chosen strategy (Attia and Hooley, 2007).

Considering the more comprehensive character of the wide approach, which notes not only the tactical meaning of positioning but also its strategic importance, including competitive conditions, such approach was adopted in this paper. We acknowledge that positioning serves the organisation's offer in taking the unique position – as compared to competitors' offers – in the buyers' minds, thanks to which they make a decision to purchase it.

In practice, positioning is accomplished through the utilisation of certain features of an offer that are defined as the positioning criteria. Just like the apprehension of the positioning concept, the matter of its criteria has been the subject of controversy (Blankson and Kalafatis, 2004). In the present paper, the authors lay on the empirically verified typology of positioning criteria, presented in Table 1.

**Table 1. Typology of positioning criteria.**

Positioning criterion	Characteristics of the offer
Top of the range	Upper class, Top of the range, Status, Prestigious, Posh
Service	Impressive service, Personal attention, Consider people as important, Friendly
Value for money	Durability, Warranty, Safety, Reliability
Attractiveness	Good aesthetics, Attractive, Cool, Elegant
Country of origin	Patriotism, Country of origin
Brand name	The name of the offering, Leaders in the market, Extra features, Choice, Wide range
Selectivity	Discriminatory, Non-selective, High principles

Source: (Blankson and Kalafatis, 2004)

Authors also acknowledge that the use of the positioning concept in the operation of a non-commercial organisation, such as non-public school, depends on how the competitive conditions are perceived.

### Perception of competition

Perception of competition is here understood as the impression on the character of the competition, recognised in the organisation, incurred by its members and affecting the decision-making process in the organisation. It may proceed on three levels: referring to the competitors' present actions, their future actions and future reactions (Montgomery et al, 2005). In practice the perception of competition depends on mental constructions, developed by managers with reference to the complex conditions of competitive environment. In general they make certain simplifications in the process of diagnosing the situation of their organisation, because they are unable to process all pieces of information or they don't have access to this information (Krzyżanowska, 2011). Their perception can be therefore exposed to two types of distortion, resulting from underestimating or overestimating competition as the factor influencing the given organisation (Deshpandé and Gatignon1994).

Taking the nature of educational services and the characteristics of STO institutions into account authors formulate a hypothesis on distortions in perceiving competition by persons managing STO establishments. These distortions consist in underestimating competition and are demonstrated by the occurrence of the following: (1) 'winner blindness' syndrome – manifested when decision makers recognise their rivals' behaviour insufficiently due to their previous market successes, (2) escalating attachment to previous decisions – manifested by the belief that decisions that were appropriate in the past would also suit the future, (3) excessive confidence in foresight – resulting from the belief in one's ability to anticipate the rivals' behaviour, (4) limited perspective – being the

effect of the fixed way of analysing problems that doesn't allow to identify new phenomenon (Krzyżanowska, 2011).

### Research approach and methodology

In order to identify the way competition is perceived by non-public educational institutions, the storytelling method was utilised. Storytelling is the research method based on the analysis of stories produced by members of a given community (Hopkinson and Hogg, 2006, p.156).

The story in the storytelling method is defined by three aspects: time, meaning and social aspect (Hinchman and Hinchman, 1997). The time aspect means firstly that the story is placed in a certain time, and secondly, that the fixed chronology of events is observed. The meaning aspect regards determination of the story's purpose, while the social aspect refers to the construction of the story by somebody, for somebody.

Storytelling is used widely in social sciences and also beside them. Descriptions of this methods and its utilisation can be found in psychology (e.g. Bruner, 1986; Sarbin, 1986; Polkinghorne, 1988, 1991,1996; Gergen and Gergen, 1988, McAdams 1996), sociology (e.g. Ezzy, 1996; Somers, 1994), anthropology (e.g. Ochs and Capps, 1996), linguistics (e.g. Labov and Waletzky, 1997/1967), as well as in the fields of law, medicine, psychiatry, psychoanalysis, social work and education (Riessman, 1993).

The potential of storytelling also has been appreciated in marketing – at first mainly in service marketing, where clients' experiences were expected to serve better development of service (Stern, 1998), as well as in consumer behaviour, where the clients' stories allowed learning more about the process of purchase decision making and their relationships with brands (Brown, 1997; Brown and Reid 1997; Grayson 1997; Hirschman, 1988, 2000; Stern, 1995; Thompson, 1997), and later also in strategic marketing, among others as the dominant logic of the organisation (Deighton, 2004, pp. 19–20).

Adopting the criterion of the story narrator, we have either first order or second order narratives (Carr, 1997). The first order narrative means the firsthand story, the collection of a lifetime history, the experience of one particular person, who presents his or her own viewpoint to the researcher. The analysis of the first order narrative can take the form of analysing the autobiographic story, where the researcher is both the author and the hero of the narrative. The second order narrative refers to stories heard or imagined; it may present myths or events not necessarily experienced by the narrator, who, however, has a certain opinion about them. The analysis of the second order narrative can apply to people, objects and organisations in both individual and social aspects (e.g., a group of clients, group of competitors, etc.) (Elliott, 2005).

In the research process, stories can be used in many ways, according to the adopted research perspectives – positivist and interpretivist. The positivist approach is identified with objectivism. It sees one objective truth that can be discovered by science. Positivism encourages emphasis on functions of objects and perceiving the world as a rational, well-organised place with the past, present and future clearly defined. The interpretivist approach emphasises the meaning of the symbolic subjective experience. According to this approach, every individual creates his or her own meanings, and this is why there are neither good or bad answers, while the world we live in is made of pastiche or collage of pictures (Solomon, 2006, p. 55).

The research plan was developed on the basis of the interpretivist perspective. The main objective of this approach is to understand processes, occurrences and behaviour in a certain framework of context and time. The narrative analysis is characterised by the following features: (1) it is aimed at exploring occurrences, (2) it is flexible, (3) it is held in the respondents' natural environment.

The research has been conducted with the use of the concept by Czarniawska (2004) referring to the narrative analysis as the process with a number of stages to be passed through by the researcher who analyses practice approaching certain theories on this basis.

**Table 2. Stages of narrative analysis**

Course of action	Process characteristics
1. Decide the type of story to be collected	Positivist or interpretivism perspective; first order or second order narratives, purpose of research, real event or myth
1. Identify the source of stories	Definition of informants, respondents, participants
1. Choose context for storytelling	Method of data collection: interview, questionnaires; time and location
1. Provoke storytelling	Settlement of different stimuli and prompts
1. Collect the stories	Determination of the data collecting means – written, oral, taped, diaries ...
1. Analyse/interpret stories	Analysis of relationships in time, analysis of structure and content – who says what and how?
1. Write up stories	Development of cases, coded categories
1. Put together your own story	Theory building/generation
1. Set it against/together with other stories	Definition of limitations and contribution of research in theory creation and development

Source: (Czarniawska 2004)

The actions undertaken within the process of narrative analysis in the study are presented in Table 3.

**Table 3. Adopted stages of narrative analysis**

Course of action	Adopted research process/proceedings
1. Decide the type of story to be collected	Interpretivist approach, purpose – perception of business environment (consumers' and competitors' behaviour)
1. Identify the source of stories	Managerial staff in STO schools
1. Choose context for storytelling	In-depth interview with medium level of structuralisation
1. Provoke storytelling	Questions sent to respondents with the request for detailed answers in written, books offered as a reward
1. Collect the stories	Collection of written stories
1. Analyse/interpret stories	The content analysis – both qualitative and quantitative
1. Write up stories	Development of categories and research description
1. Put together your own story	Formulation of conclusions
1. Set it against/together with other stories	Definition of limitations

Source: Self-study based on: (Czarniawska, 2004)

During the research, the second order narration was used. A school or school group (primary school and lower secondary school) being the STO member was chosen as the subject of the research, with a school manager or deputy manager as the collection unit. The request for participation in the research was sent to the entire general population of 75 institutions meeting the research criteria, i.e., excluding kindergartens, music schools and adult schools. The number of received answers was 35, out of which 12 qualified for the next stage of research due to their compliance with the assumed conditions of the research method. Among respondents there were representatives of both small establishments (60 pupils) and big institutions (more than 200 pupils), from large urban complexes and small towns, located all over the country (Białystok, Bielawa, Gdańsk, Jelenia Góra, Częstochowa, Ostrołęka, Warszawa, Tychy, Zielona Góra). Respondents also were diverse in terms of their managerial experience (from 2 months to 21 years in the school manager's chair).

## Findings and conclusions

In the course of the research, 12 extensive written elaborations referring to the questions put by authors of the study were collected. The questions touched two topical issues: buyers' behaviour connected with the choice of school, and imaginative notions on the current competitive position, as well as the competition impact on the school's operation. The managers of STO institutions declared they were well familiar with the process of choosing the school by parents and pupils. The part of respondents supported their opinion about this issue by quoting the results of questionnaire surveys, conducted among pupils' parents, for example:

'according to questionnaire surveys carried out among parents of our pupils small-sized classes, safety and high level of teaching are main reasons of choice'.

In order to identify in the narration the most often repeated criteria of choice the quantitative text analysis was performed, combining similar or congenial statements. The findings of the analysis are presented in Table 4.

**Table 4. Main criteria of the school choice from parental perspective according to school managers**

Criterion Occurrence number	Criterion Occurrence number
Educational offer 28	Pupils' performance 21
Safety 13	Individual approach 8
Care 8	Cosiness/Privacy 6
R e l a t i o n s h i p s 5	Teaching staff 4
Location 4	Acquaintances' opinion 3

Source: own

The following features were indicated as the most important criteria of choice: educational offer, variety of extracurricular activities, high level of teaching (pupils' performance and examination results), as well as safety. Individual opinions emphasised the importance of prestige, a specific trend towards choosing a non-public school, mainly in case of smaller towns.

According to the school managers acquaintances' opinions are the main source of information both for parents choosing the school for their children, and for pupils themselves:

'they find their way to us being attracted mainly by the friend's recommendation'; 'word of mouth is the best one'; 'opinion of other parents and pupils is the most important'; 'gossip news'.

Web pages, and sometimes profiles in social media, serve as the additional sources of information.

In the opinion of school managers parents and pupils intending to choose an independent non-profit school consider most often 2–3 institutions; hardly ever is only one school taken into account. Such shortlist includes an independent non-profit school, a local public school, and sometimes also another non-public institution, but this depends on the availability of the latter in the neighbourhood of decision-makers' residences:

'in my opinion, two: public and non-public one'; 'not more than two schools and mainly non-profit ones'; 'at least three'.

A significant number of managers perceive the school's distinguishing features being identical with the major criteria used by parents and pupils when choosing a non-public school. In the forefront there are as follows: teaching level, results achieved by students

during exams, safety provided by the school (among others through its privacy/cosiness), as well as the wide offer of extracurricular activities to be chosen according to individual preferences. Few institutions use outward communication to inform about their distinguishers – if so, such information appears on the school webpage, and sometimes in local media.

Managers of 10 institutions mentioned their school's mission, while in two others the work on it was currently in progress, respondents reported. What can be mentioned as the common denominator of these missions is that a great emphasis is placed on the formation of values among pupils:

'Yes, we have our mission and values play a huge role in it'; 'We educate pupils in the spirit of universal moral values, tolerance, humanistic values, patriotism, solidarity, democracy, freedom and social justice'; 'We exist in order to accompany our pupils in their way to self-recognition and self-fulfilment, in the ambience of love, wisdom and respect for freedom'; 'our school is a school based on values'.

Opinions about the competition impact on the operations of surveyed institutions were divided among their managers. In general, three following approaches to competitors and to the assessment of their influence on schools can be found: (1) competitors are ignored (4 opinions), (2) competitors are noticed, but their impact is regarded as minor (4 opinions), (3) competitors are noticed and their impact is regarded as considerable (4 opinions). Ignoring rivals is associated with self-perception as the different category:

'we don't experience competition, because we are the school supplementing the educational offer of other schools in the region'; 'we don't rather notice it, for three years we have had no problem with enrolment'; 'each school has its profile or determinants, I don't like competing'.

The small impact of competitors, including both public and non-public institutions is connected with apprehension of changes in the environment by respondents, however also with their underestimation, at least for the time being:

'new institutions that focus on didactic base have been established, they are not a competition yet, we have a greater experience, but over time they may become a serious competitor'.

The considerable impact of competition is experienced by weakly equipped establishments, operating without their own base. Their managers pay attention at more attractive conditions of studying in public schools and lack of tuition fee, which in certain locations is the significant factor lowering the tendency to choose a non-public school:

'parents think it makes no sense to pay for their child's education, if they can have it for free in a public school'.

The perception of competition by managers of STO institutions is quite narrow. Only one respondent indicated the possibility of change in the competitive situation of the managed school in the near future, while others focused on the current landscape. Furthermore, only institutions located in the direct neighbourhood of the surveyed schools were taken into account by their managers. The analysis of narratives submitted by STO schools' managers allowed authors of this study to accept in part the previously

formulated hypothesis about the occurrence of distortions in perception of competition by persons managing institutions associated in STO. Underestimating or even ignoring competition appears in respondents' declarations; however, such behaviour doesn't prevail. Referring to the previously defined reasons underlying distortions in perception of competition, mainly two of them can be found in the managers' answers: escalating attachment to former decisions and limited perspective. It is particularly evident in the stories of respondents with more than 10-year experience in school management.

Managers paying attention at competitors, but indicating their small influence on the institution's activity were usually highly aware of the school's distinguishers in the market of educational services. In the analyzed elaborations nearly all distinguishing features being the basic criteria of positioning appeared, with the special regard to quality, reliability, brand, individual solutions. Although aware of the distinguishers' importance in the process of school choice, managers of STO institutions communicate outward such features rather seldom, assuming to some extent that a good product, such as they have, sells itself. Even if they communicate the above, it is mainly supported by word of mouth. The schools' aspirations, manifested in their missions, are focused first of all on the intrinsic development of their pupils. None of the analysed missions included elements mentioned by managers as distinguishers of their institutions. As a matter of fact, all the missions were quite similar.

While identifying obstacles to effective implementation of the positioning concept by the non-public STO institutions the attention should be paid at the following: lacking need (hitherto schools haven't had problems with enrolment), resource barriers (lack of their own base, necessity to focus on survival), mental barriers (attachment to past actions). Of course, the study findings can be neither generalised nor extended to the entire population of non-public schools; however, the research conducted by authors of this paper allow for exploration of problems and occurrences concerning the issue of schools' functioning in the environment of increasing competitiveness. The basic recommendations for managers of STO institutions can be set as follows:

- Managers should make the perspective for assessment of competitive position of the school longer (a longer-term planning is therefore necessary)
- Managerial staff ought to pay more attention at observation of competitors' behaviour
- Managers should select 1–3 basic features distinguishing their school from competitors
- Distinguishers of the school are required to be communicated outward in straightforward way and perhaps reflected in the school's mission.

### Limitations and further research

The size of surveyed group is the basic limitation of the conducted research. Despite incentives in the form of a book prize, a significant number of school managers weren't encouraged to participate in the research. Reaching a larger group of respondents would permit examining defined issues from a wider perspective. Nevertheless, even with the participation of only 12 representatives of STO institutions, the authors managed to achieve both cognitive goals that had been initially set and practical research.

Further research should be conducted in order to verify previously formulated hypotheses with the use of quantitative methods and to confront the managers' notions with buyers' opinions. The competition among educational institutions in the Polish market is expected



to harden due to the demographic situation. The issue of the competition perception and adequate reaction to the competitors' actions will therefore grow in importance.

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## Using Delphi methodology in information system research

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### *Abstract*

*The Delphi methodology is a proven tool in information system research. It is a flexible research technique to explore new concepts within and outside of the information systems body of knowledge. The Delphi method is an iterative process to collect and distill anonymous judgments of experts using a series of data collection and analysis techniques interspersed with feedback (Skulmoski et al., 2007, p.1). It is well suited as a research instrument when there is incomplete knowledge about a problem or phenomenon. This method works especially well when the goal is to improve our understanding of problems, opportunities, solutions, or to develop forecasts (Skulmoski, et al., 2007, p.1). It can also be used as judgment, decision-aiding or forecasting tool (Linstone and Turloff, 1975).*

*This paper provides an overview of the Delphi methodology and guidelines for the development a deployment of a research process using this method. On the example of the latest and future development of social media in the personnel marketing environment, this paper provides some input about the deployment of this method. The findings will aid information systems managers to address the communication challenges and opportunities that new technologies and media present.*

*Keywords: Delphi Methodology, Information System, Social Media, Web 2.0*

### Delphi Methodology in information system research

The Delphi methodology as a proven tool in information system (IS) research (Skulmoski et al., 2007, p.2; Okoli and Pawlowski, 2004, pp.15-28; Holsapple and Joshi, 2002, pp. 477-490; Mulligan, 2002, pp.647-658; Hayne and Pollard, 2000, pp.73-86; Schmidt et al., 2001, pp.5-36; Brancheau et al., 1996, pp.225-242). It is an iterative process to collect and distill anonymous judgments of experts using a series of data collection and analysis techniques interspersed with feedback (Skulmoski et al., 2007, p.1). According to Okoli and Pawlowski (2004, p.18) this method is very valuable for research problems especially due the following reasons:

1. This study is an investigation of factors that would support the usage of web 2.0 technology in personnel marketing to transmit corporate culture. This complex issue in a new and fast developing field requires knowledge from people who understand different technological, social and economic issues there. Thus, a Delphi study answers the study questions more appropriately
2. A panel study most appropriately answers the research questions, rather than any individual expert's responses. Delphi is an appropriate group method, which does not require the experts to meet physically.
3. Although there may be a relatively limited number of experts with knowledge about the research questions, the Delphi panel size requirements are modest.

4. The Delphi study is flexible in its design, and amendable to follow-up interview. This permits the collection of a richer data leading to a deeper understanding of the fundamental research questions.

As in particular the field of social media is very young with uncertain developments in the near future, this research methodology may be an appropriate way to gain information about the current status quo as also predictions about the future developments.

## Secondary research

The first step of any research investigation is a thorough review of the current published literature. This is essential to gather state of the art know-how. Although there can be found many information and literature about personnel marketing and new potential social media vehicles, the direct connection between those two fields remains uncertain. Thus primarily research is needed to answer the research questions stated in chapter 1.

## Delphi methodology

The Delphi methodology was developed at RAND Corporation in the 1950s to elicit expert opinions on future trends in specific areas of study (Dawson and Brucker, 2001, pp. 125-140; Dalkey and Helmer, 1963, p.458).

“The Delphi method is an iterative process used to collect and distill the judgments of experts using a series of questionnaires interspersed with feedback. The questionnaires are designed to focus on problems, opportunities, solutions, or forecasts. Each subsequent questionnaire is developed based on the results of the previous questionnaire. The process stops when the research question is answered: for example, when consensus is reached, theoretical saturation is achieved, or when sufficient information has been exchanged.” (Skulmoski et al., 2007, p.2). It is a method for structuring a group communication process to facilitate group problem solving and to structure models (Linstone and Turloff, 1975). The Delphi method can be used when there is incomplete knowledge about a problem or phenomena (Adler and Ziglio, 1996; Delbeq et al., 1975). The method can be applied to problems that do not lend themselves to precise analytical techniques but rather could benefit from the subjective judgements of individuals on a collective basis (Adler and Ziglio, 1996) and to focus their collective human intelligence on the problem at hand (Linstone and Turloff, 1975). Also, the Delphi is used to investigate what does not yet exist (Czinkota and Ronkainen, 1997; Halal et al., 1997).

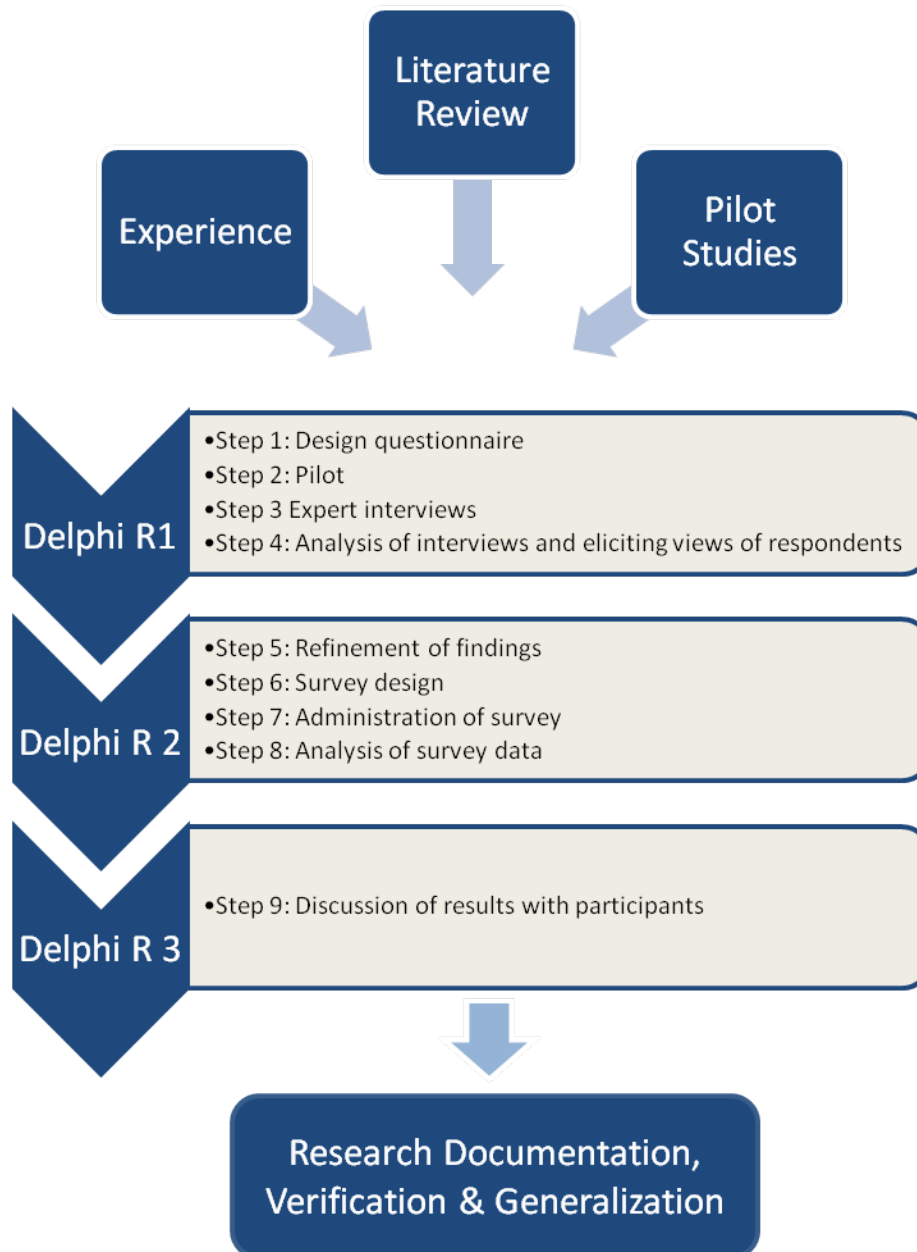
Even if the method has undergone continued development since the 1950s, the basic characteristics identified by Dalkey and Helmer (1963, p.458) remain the same (de Meyrick, 2003, p.9). Rowe and Wright (1999, pp.353-375) described the following Delphi method's key features:

1. Repeated individual questioning of the experts allows participants to refine their views.
2. Anonymity of Delphi participants, with avoiding direct confrontation of the experts with one another. This allows the participants to freely express their thoughts.
3. Controlled feedback to the experts to inform them about the other expert's opinions, and provide the opportunity for the participants to clarify their views.
4. Statistical aggregation of the responses to allows a quantitative analysis and interpretation of data.

## Delphi process

The typical Delphi process has been comprehensively reviewed (Adler and Ziglio, 1996; Delbeq et al., 1975; Linstone and Turloff, 1975). Therefore, figure 1 presents an overview of the Delphi methodology that will be used in the research project. Appendix 4 provides detailed information about the explicit steps within the Delphi process.

**Figure 1: The Delphi process (own drawing)**



## Delphi participants

As the Delphi method focuses on the identification of expert opinions, it is very important to choose the appropriate experts. Gutierrez (1989, p.33) defines these experts as “group of knowledgeable people: those who can provide relevant input to the process, have the

highest authority possible, and are committed and interested". According to Adler and Ziglio (1996) the Delphi participants should meet the following four requirements:

1. Knowledge and experience in the research field
2. Capacity and willingness to participate
3. Sufficient time to participate
4. Effective communication skills

For the consideration of the sample size, there are no definite rules applicable. However, Skulmoski et al. (2007, p.10) offer a range of factors that should be preconceived.

- "Heterogeneous or homogeneous sample: where the group is homogeneous, then a smaller sample of between ten to fifteen people may yield sufficient results. However, if disparate groups are involved (e.g. an international study), then a larger sample will likely be required and several hundred people might participate (Delbecq et al., 1975). Although, a word of caution needs to be extended to the new researcher: heterogeneous groups can greatly increase the complexity and difficulty of collecting data, reaching consensus, conducting analysis, and verifying results.
- Decision quality/Delphi manageability tradeoff: there is a reduction in group error (or an increase in decision quality) as sample size increases. However, above a certain threshold, managing the Delphi process and analyzing the data becomes cumbersome in return for marginal benefits.
- Internal or external verification: the larger the group, the more convincingly the results can be said to be verified. However, a smaller sample might be used, with results verification conducted with follow-up research. For master theses, often a single Delphi study will often suffice"

The participants will be chosen based upon their prominence in research and practice. They are already very well known by the author but all will be chosen on the basis of their position and expertise in the professional service sector, and therefore qualifying them as experts or oracles (Dawson and Brucker, 2001, pp. 129-140). According to exhaustive discussions with my supervisors and professors it was decided that the sample of twelve participants should be sufficient for this research.

## Number of iterations

One discussion point about the usage of the Delphi method is often the number of iterations. Linsonte and Turoff (1975, p.88) state that the process might take five iterations but is usually reduced to three. "Most commonly, three rounds proved sufficient to attain stability in the responses; further rounds tended to show very little change and excessive repetition was unacceptable to participants." (Linsonte and Turoff, 1975, p.229). Watson (2008, p.105) and Delbecq et al. (1975) agreed that a Delphi study has typically two or three rounds of contact with the experts in which comments are first elicited, then summarised and returned for further discussion.

## Mode of interaction

The researcher can chose from different communication types to interact with the participants. Although, conducting this research by paper and pen is still an option, the usage of email and internet-based methods have accelerated the process, and shortened

the distribution and response time (Watson, 2008, p. 106). The quick turnaround times support to keep the commitment of the participants, and therefore the participation high (Skulmoski et al., 2007, p.11). The advantage for the researcher is that the data are already available in a digital format and therefore comfortable to use with avoidance of transcription errors.

## Testing the model

The quality of testing a construct can be determined by three factors: Objectivity, Reliability and Validity (Berekoven et al., 2006). Objectivity is accomplished if the test results are not affected by the tester. Reliability is defined as “the degree to which measures are free from random errors” (Peter and Churchill Jr., 1986) and is accomplished if any repetition of the test yields the same results. Validity describes the conceptual accuracy of a measurement. High validity is achieved by a high level of congruence of the measuring instrument and the latent variables of the hypothetical construct. Finally the validity is confirmed by the degree to which the theoretically established connections between factors are approved by the empirical data (Bagozzi and Phillips, 1982).

For the measurement of reliability and validity several criteria were established in the field of psychometrics and marketing research. The advantages and disadvantages of those criteria will be discussed in detail prior to the research and a multitude of these criteria will be used in order to ensure the maximum level of validity.

## Potential limitations of the methodology chosen

As all research projects have their limitations there are still some undiscovered fields which have to be reviewed. Even if the major benefit of the Delphi method is that the expert views are anonymous, it has also a negative facet. “The respondent may no longer feel committed to the issue and change their input merely to conform to the group position and bring the process to an end sooner, not from being genuinely convinced by the inputs of the other respondents.” (de Meyrick, 2003, pp.10-11). This behaviour is also known as “artificial consensus” (Gutierrez, 1989, p.33). Another limitation of the methodology, again due to the participants, could be that the chosen experts in the process have often an influence on the actual outcome and use the results to influence policy decisions. (de Meyrick, 2003, p.13).

The findings identified are not necessarily characteristic for all industries and the entire audience population. Despite the fact that, according to the reviewed literature, a lot of companies are already using social media, the model needs to be validated cross industry. This is especially true for professional service companies with huge hiring figures and technical/engineering focused industries with the hiring demand of internet savvy candidates. For example, a high saturation of the usage of Web 2.0 technology can be seen in industries such as automotive and IT (Beck and Hesse, 2010). There are a number of additional issues for future research to consider. For example; is the social media model relevant for low paying jobs or jobs where “internet savvy” is not a precondition? Furthermore, the technology infrastructure needs to be considered. Some countries may not have appropriately developed technology to embrace social media. Additionally social media may not be appropriate from a cultural perspective in some countries. Finally, there has been little research carried out to understand how universities are working on capitalise the usage of this media. Finding the answers to some or all of these



questions will help to give a more complete understanding of the use of social media for recruitment purposes. All this will require further research to identify the missing gaps.

## Contribution to knowledge

This paper presented an overview about the Delphi research methodology and explained why this is a powerful tool in particular within Information system research. The Delphi method will be applied for gaining more insight in the academic fields of social media and personnel marketing. It aims to develop and test a conceptual framework model of using social media for personnel marketing. As this is a relatively new and innovative field, there is a gap of academic research and a lack of prescriptive solutions that explain how to utilize Web 2.0 technology in an effective way. It helps to build a fundamental guideline and proven concept to capitalize social media to attract, recruit and retain talents.

Concluding, the present study promises new insights in the academic fields of social media and personnel marketing by combining two relevant aspects:

1. Identification of relevant Web 2.0 technology
2. Capitalizing social media from employer perspective

Thus, the results of this study will be beneficial to the current state of research in the academic fields of social media and personnel marketing and therefore will contribute to the body of knowledge.

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## **Innovative business model in the parquet industry. An Italian leading company: Margaritelli S.p.A. and its brand Listone Giordano.**

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### *Abstract*

*The paper aims at analyzing the role of business model innovation for enterprises operating in supplier-dominated industries. In particular, it is possible to consider that innovation in these industries doesn't mean to better the existing products any more but acquiring new skills, above all, in the management of research and development, marketing and retail and being able to directly and effectively manage all phases and activities of the value chain.*

*The methodology adopted to investigate this growth strategy is the case study. The paper, in fact, analyzes the experience of Margaritelli S.p.A., an Italian enterprise leader in the European parquet industry. This enterprise, after developing and introducing a radical product innovation – the multilayer parquet – that has highly modified the industry competitive dynamics, has invested in international retailing, to better explain the high quality level and the technology content of the new product to the final consumer. Moreover, this strategy has been supported by a non-conventional communication policy directly to consumers – and not to retailers – in order to shift from a push strategy (based on industrial marketing activities) to a pull strategy (based, instead, on consumer marketing activities).*

*Finally, from a theoretical point of view, it is possible to point out that retailing strategies with combined investments in brand and communication can represent components of new competitive business models, in order to develop organizational, technological and marketing systematic innovations.*

*Keywords: Business Model Innovation, Brand, Retailing Network, Internationalization, Market-Pull Strategy*

### **Introduction**

The main feature of the Italian entrepreneurial system is usually outlined in economic and management literature as the predominance of small firms, which operate in traditional sectors, and are often organized in industrial clusters. The industrial district, therefore, has long been the competitive habitat of those small businesses that, in benefitting from the effects of Marshallian agglomeration on external economies, have been able to activate pathways of growth, also internationally (Becattini, 1991, Becattini and Dei Ottati, 2006).

In recent years, however, in a context of increasing globalization and technological innovation, small business districts have suffered serious competitive setbacks. As a result manufacturing districts have seen dynamics of reorganization, hierarchization, and

polarization have occurred, which involve leading medium-sized enterprises. These firms are capable of pursuing significant internationalization strategies, not only in terms of exports, and not only limited to Western markets, by putting technological and product innovation strategies into place (Cainelli et al, 2006, Varaldo and Ferrucci, 1996). These “new” subjects have indeed been able to open paths of internationalization based on foreign direct investment, institute international retail networks, establish international retail networks, and generate innovation in terms of product, design and style, through outsourcing, or in collaboration with their own internal creativity and marketing workshops (Antonietti and Cainelli, 2008, Corò and Grandinetti, 2001).

In management terms this process of change has necessitated that these companies acquire new skills, not only in terms of manufacturing, but, above all, in the management of research and development, marketing and retail. In other terms, by putting the focus on the product, a concept typical of the “industrial artisan”, in which innovation is principally understood as the ability to produce high quality products, and to make adjustments and improvements to existing products. What can be increasingly seen is the emergence of what could be classed as “system” innovation, in which it is not possible to separate and segment between the different areas of technology, markets, distribution and communications. In the framework of this new approach, innovation therefore means being able to directly and effectively manage all phases and activities of the value chain (Porter, 1985).

It is in this context that this paper aims to provide empirical evidence of how the competitive challenge, even in a seemingly traditional sector, with a significant number of European competitors, can be faced with success. Indeed, Margaritelli S.p.A. and the Listone Giordano brand constitute a textbook example of a company that has become the market leader in its field.

## Methodology

In terms of methodology, the approach used was that of the case study (Yin 2003), carried out over a period of several years, from 2009 up to the present, through subsequent in-depth analysis sessions (Leonard-Burton, 1990). Specifically, two separate research activities were planned and conducted. Firstly, a desk analysis of documented sources was undertaken, involving sectorial reports, corporate documents and articles from newspapers and specialized economic journals, in order to construct a general profile of the company, and define, in the framework of the dynamics that characterize the sectorial and territorial context, the main phases of its development. Secondly, several interviews were carried out with both company owners and management, in order to identify the specific details of the activities undertaken, the changes made in different functional areas, the strategic and operational actions carried out as a result of changing competitive conditions and, finally, the results arising from the adoption of such initiatives (Eisenhardt, 1989).

## The case study

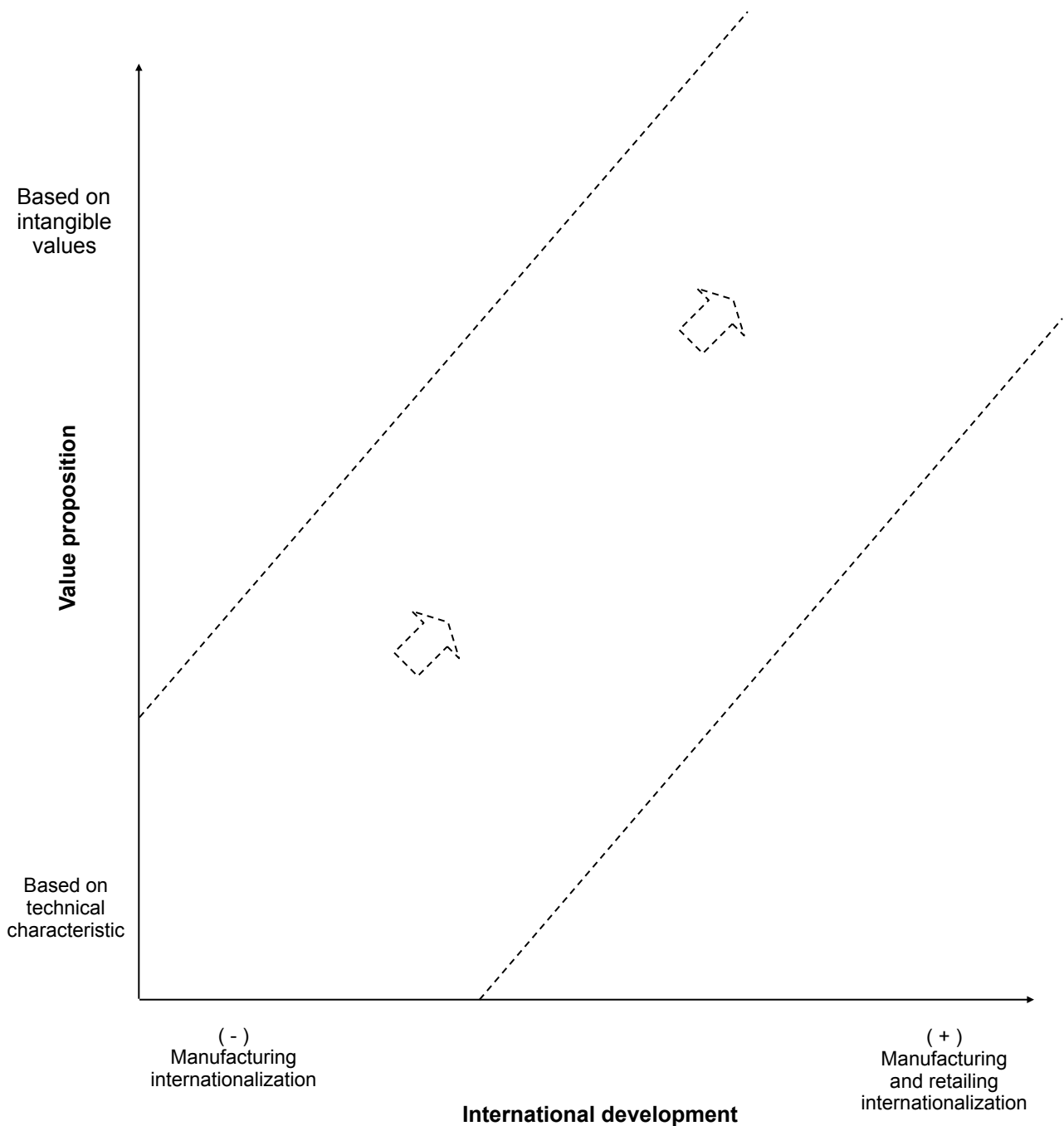
Margaritelli S.p.A. is a large family owned multi-business group operating in a range of areas, from wood flooring to interior furnishings, and railway sleepers to safety barriers for road works and industrial vehicles. In 2010 the company had an occupational structure consisting of 977 employees and a turnover of more than 163 million euros, of which 84.2 million euros were from the sector of wood for the home, 48.3 million euros the railway

equipment sector, and 30.6 million the industrial vehicle sector. These activities may appear to be completely autonomous in terms of organization and management, but, at the same time they are characterized by a common shared business vision, oriented towards continual innovation in technology and marketing.

In the context of business activities, the core sector is clearly the parquet segment, a strategic business area characterized by low barriers to entry, mature manufacturing technology, and manufacturing expertise spread wide across the country, as well as many other areas of Europe, which results in intense competition. While it may have shared similar characteristics, at the moment when it identified its business strategy Margaritelli S.p.A. invested intensively in order to achieve a leadership position, becoming the leading innovator and anticipator of market trends, and forcing its competitors to take on the role of followers.

This competitive positioning derives firstly from the high degree of internationalization in production and distribution networks, with the implementation of foreign direct investment dating as far back as the 1960s, beginning with the acquisition of forest basins in France, and continuing thereafter with the direct control of new sources of supply located in South America and, secondly, from a strong focus on innovation in technology and retail. In this context Margaritelli SpA has succeeded in developing a business model in which the traditional levers of marketing are revisited and reinterpreted in a markedly innovative way.

**Fig. 1 Business Model Innovation of Margaritelli S.p.A.**



## Product innovation

Product innovation is one of the main strategies that has characterized and determined the current leadership position of the company. For Margaritelli this concept represents a continual path of corporate philosophy, the contents of which are in constant renewal. In particular, product innovation takes on different meanings in the various experiences of the company, each of which may be attributed to specific phases of the lifecycle of the product itself (Levitt, 1965, Cox, 1967, Rink and Swan, 1979).

## Technological innovation

The first product innovation that could be defined as scientific/technological occurred in 1984, the year in which the company revolutionized the market for parquet flooring with the creation (and filing of the patent) of the Listone Giordano plank, a revolutionary two layer wooden floor developed with the support of innovative technology. This phase saw the introduction of a new product in a segment previously characterized by floors manufactured exclusively from solid wood. Listone Giordano introduced two part flooring: a lower support, in five layers of birch, to ensure the wood does not warp, and an upper layer consisting of five millimetres of solid wood. From a technical point of view this ensured the ideal balance between the natural stress on the upper layer and the resistance of the supporting technology. Margaritelli was therefore the company that invented and brought to market a radical innovation in the mid-1980s (Freeman and Perez, 1988), the multilayer parquet flooring that still represents the technological standard in the wooden flooring industry (European Federation of the Parquet Industry, 2011). This product innovation was the result of collaboration with Prof. Guglielmo Giordano, at the time professor of wood technology at the University of Florence, and founder of the CNR Institute of Wood Research. His insight offers the definitive solution to the problem of dimensional stability for parquet flooring, allowing for the creation of listone planks that combine their high aesthetic value with the functionality of being absolutely indeformable. In honour of the inventor of this technological solution the Listone Giordano brand was launched, allowing Margaritelli to introduce the concept of two-layer parquet, and very quickly become the leading company in the market for high-end wooden flooring.

This propensity for scientific-technological innovation is not limited to the finished product, but also extends to working methods. Scientific research, aimed at an understanding of issues related to the study of wood and its application technologies, allows the company to introduce process innovations related to the activities of cutting, drying, coating, and laying parquet flooring. These are fundamental technological innovations that led to the registration of approximately twenty patents during the development of Listone Giordano parquet. It appears to be evident that product innovation is enhanced, in terms of the appropriability regime of the ownership, by technological innovations concerning production processes. It follows, therefore, that even in a traditional sector, such as wood, the insights gained through innovative knowledge are strengthened by the integration of product and process innovations (Abernathy and Utterback, 1982) that allow the company to strengthen its competitive advantage over time.

## Health initiatives and environmental sustainability

The second product innovation is represented by the development of intangible assets, intrinsic to the product itself. In a market such as that of multilayer parquet, which has reached the phase of maturity, Margaritelli continues to innovate and differentiate their products from competitors through strategies designed to safeguard health and environmental sustainability. These aspects are intangible values, as they do not manifest themselves in the form of material characteristics or technical performance, and cannot therefore be immediately perceived by the end user. They do however constitute qualities that, once transmitted, augment the added value attributed to the product (Bedek, 2011).



In relation to health related initiatives, the company has adopted policies which allow for the achievement of significant results, including: zero solvent emissions, thanks to the use of non-toxic and odourless green materials, and above all, innovations developed in the process of finishing wood flooring; the reduction of formaldehyde emissions, with values ten times lower than the safety threshold set by the strictest European regulations; and the control of radiation emissions, with the adoption of a system of rigid self-discipline that requires strict testing and extremely restrictive limits.

As regards environmental sustainability, the company started a process aimed at the preservation of their forest resources some time ago, among the first results of which was the attainment of FSC (Forest Stewardship Council) and PEFC (Programme for Endorsement of Forest Certification schemes) certification of the oversee its supply chain, namely the ability to control the sourcing of raw materials and traceability throughout the entire production process. This policy first led to the certification of all European species, and is also implemented at present at the international level, so as to ensure the realization of an eco-sustainable product. Indeed, on the basis of its wealth of expertise in the field of forest management, acquired during a half century of activity in France, and consolidated through the creation of pilot schemes in Italy, the company intends to implement new initiatives in developing countries, where the conditions exist to make long-term investments in the environmental field. In particular, Listone Giordano is already present in some South American countries, Bolivia and Argentina, where it is preparing and implementing plans for international cooperation aimed at the eco-certification of tropical timber species. With the involvement of institutions and local communities, the company has started a major project for the surveying and sustainable management of forests that will affect, it is estimated, an area of 50,000 hectares. Through investment in forest ownership and the commitment of skilled human resources, Listone Giordano therefore represents one of the main supporters of the FSC certification process in South America.

## Design innovation

The final type of product innovation is that achieved through design. In contrast with furniture, which to a greater or lesser extent has a design component, parquet flooring was never considered a product “to design”. Also in this regard, Margaritelli was the first company to introduce the concept of design to wood flooring, by initiating a new approach to research and development. The premise for this innovation is the desire to combine the tradition derived from the treatment of wood floors with modern design, and to reinterpret, in a contemporary fashion, a product that was up to now considered traditional, and therefore not subject to aesthetic and functional design. The identification of this new requirement has led to the birth of different relationships with important designers, both Italian and international, who were entrusted with the design of new product lines, each of which is protected by an ornamental model. The Medoc collection, designed by Michele De Lucchi, emerged among these new products, and has achieved significant results since it was first presented to the press and public in 2008, in terms of both market share and critical recognition. Among these achievements can be cited the 2009 ADI (Industrial Design Association) Design Index, the 2010 Innovation Awards, presented by the Presidency of the Italian Republic, the 2010 EDIDA (Elle Deco International Design Award), and an Honourable Mention Award at the Compasso d'Oro ADI in 2011. The success achieved by this new innovation strategy, this original, innovative and unusual way of understanding and interpreting research and development, bears witness to the existence of another frontier of innovation, and therefore an

important new market space, in which the company continues to maintain its leadership role while also anticipating competitive dynamics (Verganti, 2009).

## Retailing Strategies

After revolutionizing the wood flooring market with the introduction of Listone Giordano, Margaritelli S.p.A. continued its path of development through innovation in the distribution system. In 1995 it embarked on a franchising inspired project that led to the formation of a retail network that currently consists of more than 600 stores around the world, all dedicated to parquet and characterized by a strong and coordinated image.

The main factor which encouraged the firm to implement this strategy of internationalization and commercial innovation, with the aim of safeguarding foreign markets, is the requirement to transmit the “hidden” values of research technology and the quality of the new product directly to the final customer. At the moment when the enterprise come to create the innovative Listone Giordano product, as characterized by a higher level of quality and complexity than traditional competitors and marketplace imitations, there also arose the need to promote these differences. In other words, the added value of the new product, positioned at the high end of the market, translates, in distribution terms into the need to communicate this innovation and to offer a better service to the customer, in terms of product presentation, the professionalism of sales staff, specialist advice for the choice of wood flooring, quality of installation, and after sales service. The establishment of a retail network is, therefore, the logical consequence of a development path aimed at the completion of a production chain that starts with the direct management of forests, passes through the production cycle, and arrives at the control of retail. In this manner the quality introduced in the upstream stages of the chain directly reaches the end consumer.

This is how the Alleanza Listone Giordano project was born, a network of stores consisting of independent retailers selected by Margaritelli on the basis of qualitative criteria, such as management skills and entrepreneurship. This distribution network can be divided into two categories: stores that specialize in selling wooden floors, and corners with a shop in shop configuration dedicated to the Listone Giordano brand in retail stores that sell tiles and bathroom fixtures and fittings.

Since 2000, after a trial period in the domestic market, this distribution model has also been extended to foreign markets. While traditional export activities merely involve the sale of a product to independent resellers, in this model this is replaced by agreements with many retailers, in order to build a branded retail network. In addition to parquet, therefore, what is “exported” is the distribution formula, a partnership approach with independent retailers.

The company currently operates in over thirty foreign countries, with stores located in major cities around the world (in addition to a strong presence in Europe, with stores in Paris, London Barcelona, Munich, Vienna, and other major cities, stores have also been opened in Turkey, Israel, Korea, China, Australia, New Zealand, USA, Canada and so on).

**Tab. 1 International retailing network Alleanza Listone Giordano in 2011**

<b>Country/Geographic Area</b>	<b>Number of Shops (Stores and Corner)</b>
Italy	360
Europe	195
Western Europe	160
<i>France</i>	56
<i>Germany</i>	45
<i>Spain</i>	18
Central and Eastern Europe	35
America	27
North America	24
South America	3
Asia	37
Middle East	20
Far East	17
<i>China</i>	9
Oceania	10
Other countries	9
<b>Total</b>	<b>638</b>

An interesting aspect of this international penetration strategy is the increasing presence of Margaritelli S.p.A. in emerging markets in Asia, and the role this area plays for the enterprise. Indeed, some countries such as China, where there are already nine stores, are becoming an important market. The emergence of a new and affluent Chinese middle class, with high spending power, and a preference for Western, and in particular Italian products, is opening up new and important prospects for growth. This social class, which in percentage terms represents a narrow segment of the total population, in absolute terms assumes the role of a large consumer market. For this reason the company envisages a progressive increase in its retail presence in these emerging countries, as part of its strategy regarding the internationalization of retail network.

This policy of investment in international retail strengthens the multinational vocation of the enterprise, demonstrating the importance of expanding business on a global scale, and empowering the company with new sources of competitiveness, such as the overseeing of retailing networks, the benefits of which can be attributed to the original innovative product.

Multiple benefits arise from the supervision of international markets through collaboration with independent retailers. This is, in fact, not only a spatial expansion of the scope of operations, with a consequent increase in sales, but also the development of a capacity to pick up, perceive and interpret signals arriving directly from the market. To this end this network of highly integrated stores operates as a system of sensors that, in coming into

direct contact with consumer demand, can, through the activities of product presentation, sales and technical support, acquire information useful for the understanding of changes in consumer preferences and the competitive behaviour of rival firms. At the same time the transfer of this information to the company can provide the impetus for further research and the adoption of new technological and aesthetic solutions designed to provide effective responses to the demands expressed by the consumer market.

## Communication Strategies

The commercial success and market penetration of the international retail network is also an expression of another background innovation, introduced by Margaritelli with the launch of Listone Giordano and its associated communication policies: the ability to radically change the perception of parquet flooring. From a simple finishing material, as it was hitherto considered by the majority of consumers, parquet has become a true furnishing product. Parquet flooring is no longer the exclusive reserve of the construction industry, but has become a product aimed at the consumer market.

In the first phase, communication campaigns are implemented to outline the technical characteristics of Listone Giordano, a product that has radically changed market standards. For this reason, in order to overcome consolidated buying habits, and the possible obstruction of the distributors, the objective of the communication, which is aimed directly at the consumer in a simple and immediate fashion, is to make clear the various technological innovations of this new product and the benefits it can offer.

In the second phase, however, communication strategies shift their focus onto the intangible values of the product. In this regard the change in distribution and exhibition techniques, through the creation of the first franchise chain in the wood flooring sector, is the direct result of this innovative approach to the market, whereby parquet becomes a design product, destined to add value to the furnishing of the household. In operational terms, this translates into specific marketing policies that aim to affirm the Listone Giordano brand. In particular, Margaritelli creates original and innovative communication initiatives, directed toward increasing visibility and brand recognition by potential and effective consumers, in a language previously unknown among professionals in this sector, and closer to that used in fashion and design. In the choice of media, in addition to print media, the company became the first in the industry in Italy to carry out a television advertising campaign to increase brand awareness. In this way, the Listone Giordano brand has been able to consolidate, especially in foreign markets, its image of style, design, and made in Italy, and thus become a genuine interior design brand.

This approach has been further strengthened by the implementation of cultural initiatives. Through the establishment of the Guglielmo Giordano Foundation, dedicated to the memory of the scholar to whom Margaritelli owes the creation of the patent, and with the aim of promoting historical and technological studies on wood and its various applications, numerous events are staged regarding the use of wood, especially in the field of art and architecture. In this way a strong link has been established between Listone Giordano and culture, which becomes, to all effects, a new lever of communication capable of transmitting intangible aspects from respect and environmental protection to the design of the brand.

The communication strategy of Listone Giordano is going through a third and new phase of development at the moment, with a strong focus on the concept of customer relations.

At a time when the spread of new media and communications technologies are strongly modifying customer relations, it becomes important for the company to support and enhance the reputation of the brand. Indeed, hierarchical relationships, typical of communication patterns in the past, have been succeeded by the horizontal market interactions that are now asserting themselves, based on the firm's ability to build a strong and genuine relationship with the end customer. Based on these assumptions, "This is my forest" was born, the new Listone Giordano communication project that, using new web technologies, proposes to create a community, or knowledge space, for the sharing and dissemination of all these intangibles that can be associated with and attributed to the brand.

## Management Implications

The Margaritelli case provides different points for reflection with respect to the economic and managerial literature on matters related to the determinants of the path of growth for firms.

Firstly, the company has managed to introduce a new conception of the product that has fundamentally altered the competitive logic of an entire industry. In the period before Listone Giordano was conceived, parquet flooring was considered a product destined primarily for intermediaries in the construction supply chain. For this reason, communication policies and methods of distribution were prepared by industrial companies based on a push logic. The relationship with the dealer / installer or the intermediate user plays a central role in the design and development of the product itself, so as to meet the needs of such intermediaries. The introduction of Listone Giordano, has affirmed, instead, a communication logic that pushes the market towards a pull-type attitude, in which the final consumer becomes the new target of the product. This radical change in the dynamics of the parquet flooring market can be attributed to the innovative strategy designed and introduced by Margaritelli in three distinct, but at the same time interdependent, operating environments: the product which, thanks to new manufacturing technologies, can be highly customized with differentiation between the different types of wood used in sizes and finishes; the highly innovative communication policy, in terms of content and the choice of media used, through which the brand, which is identified with the product and the company itself, achieves a high degree of recognition; and retailing that, with the establishment of an international network of franchising inspired stores, comes into direct contact with the consumer to provide highly qualified assistance (before and after sales) and to acquire information on new market trends. The product, communications and retail are, therefore, the pillars of a new form of competitiveness in a logic of complementary strategic investments with the aim of creating systematic organizational, technological, product and marketing innovations (Teece, 1986, Teece et al, 1997).

Secondly, the ability to generate product innovations is normally attributed to two different and distinct drivers. On the one hand there is the concept of a breakthrough technology push, the basic ingredients of which are related to the ability to invest in R&D, as well as appropriate innovative scientific and technological knowledge (Schumpeter, 1939, 1942). On the other, some authors affirm that the market is the fundamental driver of innovation, in particular the demand of certain consumer segments, according to the logic of pull type demand (Schmookler, 1965, 1966). This dichotomous logic has led to a theoretical juxtaposition, especially in traditional industries, that may prove to be unrealistic. Indeed, in the case of Margaritelli, its ability to achieve a competitive

leadership position appears to be due to an organizational and strategic capacity to combine, in a complementary way, the innovative ingredients of a push type technology with pull type demand.

Thirdly, part of the economic and managerial literature on the subject has, in recent years, emphasized the role of focusing on a determinate core business (Hamel and Prahalad, 1990, Barney, 1991) in order to gain and enhance competitive advantage. In other terms, based on a post-Fordist theoretical approach, and thus a reluctance to emphasize the advantages of vertical integration, some authors have gone so far as to theorize about the validity of a competitive formula based on a hollow company (Klein, 1998). The analysis of the Margaritelli case poses conceptual challenges to such theoretical concepts. Indeed, the company has been able to enhance its competitive capacity, seek out and explore new business paths, and exploit its potential to the full through the internalization of its manufacturing and commercial capabilities. All this has been the basis of an increasing projection towards those activities placed downstream in the value chain, as in the case, for example, of a progressive control of distribution networks. It follows that the strategic flexibility of the enterprise is strongly influenced by its structural endowment of skills and competencies accumulated over time. In this light Margaritelli belies the theoretical hypothesis according to which a de-verticalization strategy reinforces a company's competitiveness in the long run (Ferrucci, 2006).

In conclusion, the experience of Margaritelli S.p.A. and its Listone Giordano brand demonstrates that despite increasing competitive pressure from new international competitors, mainly in South-East Asia, there are still competitive areas for Western companies operating in traditional sectors, provided that they are able to protect their market segments with greater added value, as represented by the high quality of goods they produce. In particular, products belonging to traditional sectors à la Pavitt (1984) are currently experiencing a phase of maturity, characterized by an increase in standardization, a homogenization of technical performance, the wide access to manufacturing technologies by new entrants and the resulting increase in production capacity at a global level. These factors, taken together, contribute to a higher level of sectorial competitiveness. In management terms this implies that the opportunity for Western companies, and in particular Italian companies, to activate new pathways of growth is closely linked to, and indeed dependent on, their ability to develop the intangible components of the product, such as sustainability and design.

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## A literature review on corporate social responsibility: definitions, theories and recent empirical research

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### *Abstract*

*Corporate Social Responsibility (CSR) has become a popular research stream in business administrations' theory, as the increasing number of publications and specialised journals indicate. There can be identified numerous attempts in literature to define CSR. In a first step, the paper reviews selected attempts, in order to clarify the basic understanding of CSR. Furthermore, theoretical concepts of CSR will be discussed. Subsequently, empirical studies, analysing the state of implementation of CSR, will be presented. The paper aims to systematically categorise the different research approaches, in order to provide a general overview. Recent studies in Germany indicate that finance departments are almost not involved in CSR implementation. This nourishes doubts of a company wide implementation of CSR.*

*Keywords: Corporate Social Responsibility, Corporate Sustainability, Management*

### Introduction

The concept of Corporate Social Responsibility (CSR) or generally spoken the role of businesses in the society has significantly increased attention in academia but also in practice (Benn & Bolton 2011; Grayson & Hodges 2004; Pearce & Manz 2011). Due to corporate scandals, the financial crisis and environmental threats, the society is much more sensitised, whether business firms have behaved socially responsible or ethical (Buchholtz & Carroll 2008, p 4). Whereas in the past the question, whether corporations have social responsibilities or not, has raised enormous amounts of controversy, Crane & Matten (2010, p 51) note that "it is by now fairly widely accepted that businesses do indeed have responsibilities beyond simply making a profit."

With regard to the social responsibility of firms, a multitude of terms and concepts can be listed such as Corporate Social Responsibility, Corporate Sustainability, Corporate Responsibility or Corporate Citizenship. However, comprehensive and commonly accepted definitions of these terms have not yet been found (Grafström & Windell 2011, p 221). Crane et al. (2008, p 5) state that "few subjects in management arouse as much controversy and contestation as CSR." Crane et al. (2008, p 7) further conclude that the "field of scholarship that CSR represents is a broad and diverse one, encompassing debates from many perspectives, disciplines, and ideological positions."

The paper is based on literature review and the aim is two-folded. Firstly, it aims to discuss definitions and theories of CSR, in order to develop a better understanding of the field of scholarship of CSR. Secondly, the paper tries to categorise and subsume recent empirical research attempts with a focus on organisational aspects of CSR.

## Terminology of Corporate Social Responsibility

The origin of the modern CSR debate can be seen in the 1930s with the arguments of E. Merrick Dodd concerning the role of managers. He states that managers indeed have social responsibilities to society. In 1953, CSR has been further conceptualized as a social obligation by Bowen (Taneja et al. 2011, p 343). Carroll (1999, p 270) even argues that “Bowen should be called the “Father of Corporate Social Responsibility.”” Further, Carroll (1999, p 291) argues that the concept of CSR had a long and diverse history in the literature. Crane et al. (2008, p 4) emphasize that “for a subject that has been studied for so long, it is unusual to discover that researchers still do not share a common definition or set of core principles”. Okoye (2009, pp 613, 624) explains the vagueness of the concept by means of the essentially contested concepts (ECC) theory, developed by Gallie in 1956. She concludes that CSR adequately corresponds with the criteria of the ECC and that there will continue to be various valid conceptions of CSR. Consequently, it seems unfeasible that the diversity of aspects within the CSR debate would develop towards a single universal definition. Crane et al. (2008, p 7) conclude that the field of CSR is lacking of a clear paradigm, however, this may not be seen as a weakness of the field, as it is still in a state of emergence. Contrary, Marrewijk (2003, p 96) argues that CSR, too broadly defined, is too vague to be useful in academic debate and in corporate implementation. Crane et al. (2008, p 7) further state that CSR is located at an intersection of many contributing disciplines, consequently one has to take into account debates from many perspectives and ideological positions. With regard to this, Dahlsrud (2008, p 2) discusses the phenomenon of biased definitions of CSR and argues that it is not possible to develop an unbiased definition and therefore proposes to study the similarities and differences between the available definitions. He has analysed 37 definitions by means of five dimensions: stakeholder dimension, social dimension, economic dimension, voluntariness dimension and the environmental dimension. The analysis revealed that the environmental dimension received significantly lower attention than other dimensions. But when CSR is explained in more depth, the environmental dimension and the social dimension are equally emphasized. There is a 97% probability that at least three of the dimensions are used in random definitions but a systematic of the use of the different dimensions is not apparent. Furthermore, Dahlsrud (2008, p 5) concludes that “it is not possible to separate the definitions into different schools of thought.” He further concludes that “the definitions do not provide any descriptions of the optimal performance or how these impacts should be balanced against each other in decision-making” (Dahlsrud 2008, p 6).

Nevertheless, Hopkins (2007, p 15) states that defining CSR is clearly important and he continues with an insightful discussion of attempts defining CSR. He finally concludes that his proposed definition can be characterised as robust enough to frame the meaning of CSR (Hopkins 2007, p 38). He defines CSR as follows (Hopkins 2007, p 15):

“CSR is concerned with treating the stakeholders of the firm ethically or in a responsible manner. ‘Ethically or responsible’ means treating stakeholders in a manner deemed acceptable in civilized societies. Social includes economic and environmental responsibility. Stakeholders exist both within a firm and outside. The wider aim of social responsibility is to create higher and higher standards of living, while preserving the profitability of the corporation, for people both within and outside the corporation.”

Russell (2010, p 44-50) provides a comprehensive overview on different definitions of CSR. Academic definitions are characterised as being highly theoretical and conceptual.

She argues that “there is only general consensus among scholars on the core of the CSR idea” and further points out that “social responsibility, according to these definitions, refers to idealistic views on organisations performing activities that protect and improve society’s wellbeing beyond the extent required to serve the direct economic and technical interests of these organisations, thus the society at large.” The following table presents selected academic definitions of CSR and also critical questions with regard to these definitions:

**Table 1: Scholars defining CSR (Source: adapted from Russell (2010 p 44-47))**

Scholars	CSR Definitions	Critical Questions/Dilemmas
Bowen (1953)	“What responsibilities to society may businessmen reasonably be expected to assume?” [CSR] refers to the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action, which are desirable in terms of the objectives, and values of our society. “Interest in politics, in the welfare of the community, in educations, in the “happiness” of its employers, and, in fact, in the whole social world about it. Therefore, business must act justly as a proper citizen should.”	What constitutes “reasonable” and “unreasonable” expectations of businessmen? What, if the “objectives and values of our society” are irresponsible? How does business combine “interest in politics” with being an impartial, responsible citizen, e.g. lobbying for controversial legislation?
Frederick (1960)	“Social responsibility in the final analysis implies a public posture toward society’s economic and human resources and a willingness to see that those resources are used for broad social ends and not simply for the narrowly circumscribed interests of private persons and firms.”	Why is “social responsibility” only “a public posture toward... resources”? What about intangible matters of CSR?
Sethi (1975)	“Social responsibility implies bringing corporate behaviour up to a level where it is congruent with the prevailing social norms, values, and expectations of performance.”	How does it address businesses’ influences on “social norms, values, and expectations of performance”?

Carroll (1979)	“The social responsibility of business encompasses the economic, legal, ethical and discretionary expectations that society has of organisations at a given point in time.”	How to balance society’ expectations with business’ responses? Does it imply that business only responds to expectations?
Drucker (1984)	“...the proper social responsibility of business is to tame the dragon, that is to turn a social problem into economic opportunity and economic benefit, into productive capacity, into human competence, into well-paid jobs, into wealth.”	What about non-tangible, non-economic benefits? How to measure these opportunities?
Wood (1991)	Argues that the basic idea of corporate social responsibility is that business and society are interwoven rather than distinct entities.	How does society evaluate business’ social responsibility if, being interwoven, it may be influenced by business’ irresponsibility?
McWilliams and Siegel (2001)	CSR is “situations where the firm goes beyond compliance and engages in actions that appear to further some social good, beyond the interests of the firm and that which is required by law.”	What are the boundaries of “some social good”? How to address potential disparity between different social groups’ understanding of “some social good”?
Kotler and Lee (2005)	“Corporate Social Responsibility is a commitment to improve community well-being through discretionary business practices and contributions of corporate resources.”	Does this exclude business organisations’ internal wellbeing?
Hopkins (2007)	“CSR is concerned with treating the stakeholders of the firm ethically or in a responsible manner. ‘Ethically or responsible’ means treating stakeholders in a manner deemed acceptable in civilised societies. Social includes economic responsibility. Stakeholders exist both within a firm and outside – for example, the natural environment is a stakeholder. The wider aim for social responsibility is to create higher and higher standards of living, while preserving the profitability of the corporation, for people both within and outside the corporation.”	How to define universally acceptable benchmarks of “civilised societies”? How to represent nature as a valid stakeholder? What constitutes “higher and higher standards of living”?

Russell (2010, pp 53-54) further discusses CSR definitions by businesses and society groups. She concludes that these attempts to understand CSR “are more practical, localised and more often focused on sustainability.” Additionally she states that “business’ interpretation of CSR as a definition incorporates more manageable aspects with the motivation of bringing it under the direct business’ control, examination of the actual implementation of CSR emphasised lapses in responsible corporate behaviour”. With regard to the sustainability focus, Marrewijk (2003, pp 101-102) argues that CSR and corporate sustainability (CS) can be used synonymously (see also Montiel 2008, p 264), as he defines both terms as follows:

“In general, corporate sustainability and, CSR refer to company activities – voluntary by definition – demonstrating the inclusion of social and environmental concerns in business operations and in interactions with stakeholders.”

Blowfield& Murray (2008, p 15) argue that, due to the many variables it seems to be impossible to prescribe what mix of responsibilities any company faces. Thus, companies should not look for universal definitions, but should instead build their strategies around the perspective of their stakeholders. As the attempts of Hopkins (2007) and Marrewijk (2003) cover together all five dimensions used by Dahlsrud (2008), these definitions shall be adopted as basic understanding of CSR.

According to Werther& Chandler (2006, p 13) firms operate within the broader context of society. Thus, one has to take into account that societies differ and consequently also what they consider as acceptable. However, Argandoña&Hoivik (2009, p 221) argue that a discussion and explanation of strictly European perspectives and definitions is still lacking.

## Evolution and Theories of Corporate Social Responsibility

Benn & Bolton (2011, p 56) point out that the classification of the evolutionary shifts in CSR practice has become common in describing the stages of CSR development. Frederick (1994, 1986, 1998) has developed the terms CSR1, CSR2, CSR3 and CSR4 which can be illustrated according to Lawrence & Weber (2011, p 53) as follows:\

**Table 2: Evolving phases of CSR according to Frederick (Source: Lawrence & Weber (2011, p 53))**

	Phases of CSR	CSR Drivers	CSR Policy Instruments
CSR1 1950s-1960s	Corporate Social Stewardship Corporate philanthropy – acts of charity, managers as public trustee-stewards, balancing social pressures	Executive conscience, company image/reputation	Philanthropic funding, public relations
CSR2 1960s-1970s	Corporate Social Responsiveness Social impact analysis, strategic priority for social response, organizational redesign and training for responsiveness, stakeholder mapping and implementation	Social unrest/protest, repeated corporate misbehaviour, public policy/government regulation, stakeholder pressures, think tank and policy papers	Stakeholder strategy, regulatory compliance, social audits, public affairs function, governance reform, political lobbying
CSR3 1980s-1990s	Corporate/Business Ethics Foster an ethical corporate culture, establish an ethical organizational climate, recognize common ethical principles	Religious/ethnic beliefs, technology-driven value changes, human rights pressures, code of ethics, ethics committee/officer audits, ethics training, stakeholder negotiations	Mission/vision/values, statements, CEO leadership ethics
CSR4 1990s-2000s	Corporate/Global Citizenship stakeholder partnerships, integrate financial, social, and environmental performance, identify globalization impacts, sustainability of company and environment	Global economic trade/investment, high-tech standards, communication networks, geopolitical shifts/competition, ecological awareness/concern, NGO pressures	Intergovernmental compacts, global audit standards, NGO dialogue, sustainability audits/reports

Among others (e.g. Carroll 1999; Carroll 2008), Lee (2008, p 69) has undertaken a further attempt to analyse the conceptual shifts of CSR in management theory. He identified that the concept has evolved in multiple aspects and termed that as rationalization of the concept. He states “that the level of analysis has moved from macro-societal level to the organizational level, and the ethical orientation has been made more implicit than explicit.” As a result, scholars’ focus in research has moved more on strategic and managerial issues, especially the link between corporate social performance and corporate financial performance (see also Lockett et al. 2006, p 132).

According to McWilliams et al. (2006, p 3) numerous theories have been used in the CSR field. Melé (2008, p 47) has identified three studies, which attempt to classify different CSR theories. These are Klonoski (1991), Garriga&Melé (2004) and Windsor (2006). Furthermore, Bondy (2008, p 14) refers to Meehan et al. (2006) as a fourth study that provides a categorization of CSR theory. However, this study is not seen as relevant for the discussion in this paper.

Klonoski (1991, p 9) divides the CSR debate into three different kinds of theory. The first group, fundamentalism, encompasses all theories in which there is no social responsibility of business or a very limited one. This view adopts the position that the corporation is an autonomous entity, owned and run by a freely constituted group. Hence, it is not a creation of the society and thus has no special and moral obligations apart from increasing profits in compliance with the laws. In the second group, moral personhood and moral agency, theorists reflect the ontological nature of the corporation itself and conclude that they can be held morally responsible for their actions. The third and last group of theories, social institutions, carried the largest portion of the CSR debate. This approach sees the corporation as social institution with social responsibilities (Klonoski 1991, pp 9-16).

Garriga&Melé (2004) have proposed a different approach, in order to categorise the different CSR theories. They distinguish between the theories based on their respective focus on aspects of the social reality (Melé 2008, p 48). The classification looks as follows (Garriga&Melé 2004, pp 52-53; Melé 2008, p 48):

1. Instrumental theories: Assume that the corporation is an instrument for wealth creation. Social activity is accepted only, if it is consistent with wealth creation (e.g. shareholder value approach).
2. Political theories: The social power of the corporation is emphasized, specifically in its relationship with society and its responsibility in the political arena associated with this power. Hence, corporations accept social duties and rights or participate in certain social cooperation (e.g. corporate citizenship).
3. Integrative theories: Argue that corporations ought to integrate social demands as business depends on the society for its continuity, growth or existence (e.g. stakeholder approach, corporate social performance).
4. Ethical theories: Assume that the relationship between corporations and society is embedded with ethical values. Business ought to accept social responsibilities as an ethical obligation above any other consideration (normative stakeholder theory, sustainable development concept).

Windsor (2006, p 93) has identified three competing approaches with regard to the developmental history of the CSR literature. The first set of theories, ethical conception, uses a basic shared principle of impartial moral reflection on tolerating expansive public policy, practicing broad self-restraint and altruism, in order to strengthen stakeholders' rights. The second group, economic conception, argues that no costly responsibility activities should be conducted. Furthermore, "responsibility must be defined in minimalist public policy, to which one may reasonably add customary business ethics." The focus lies on economic wealth creation as the best contribution of business to the general welfare. The third group, corporate citizenship conception, represents a position that encompasses economic and ethical arguments. The citizenship metaphor falls into the conceptual gap between the ethical and economic perspective. However, this position is neither a true intermediate position nor a theoretical synthesis (Melé 2008, p 48; Windsor

2006, pp 102). Taking into account the underlying concepts, the three approaches categorizing the different theories in the research field can be compared as follows:

**Table 3: Categories of theory (Source: own illustration, based on Melé (2008, pp 48-49)) After having discussed theoretical aspects of the CSR literature, the paper continues with an analysis of recent empirical studies.**

Garriga&Melé (2004)	Klonoski (1991)	Windsor (2006)
Instrumental	Fundamentalism	E c o n o m i c conception
Political	Social institutions	Corporate citizenship
Integrative	Moral personhood and moral agency, social institutions	Ethical conception
Ethical	Social institutions	Ethical conception

## Review of Empirical Research on Corporate Social Responsibility

### Methodology

The aim of the review is to analyse current trends in CSR empirical research with a special focus on studies analysing organizational aspects of CSR.

Lockett et al. (2006, p 118) distinguish between empirical and theoretical types of knowledge. Empirical knowledge can be further divided into qualitative and quantitative knowledge. Furthermore, the paper partly adopts the classification of the research design according to Taneja et al. (2011, pp 347-348): (1) secondary research, (2) questionnaire, (3) focus group, (4) case study, (5) experiment (6) action research. Taneja et al. (2011, p 347) use the category survey, however from the point of the authors, it makes sense to distinguish between questionnaires and interviews. Hence, a seventh category (7) interviews has been added.

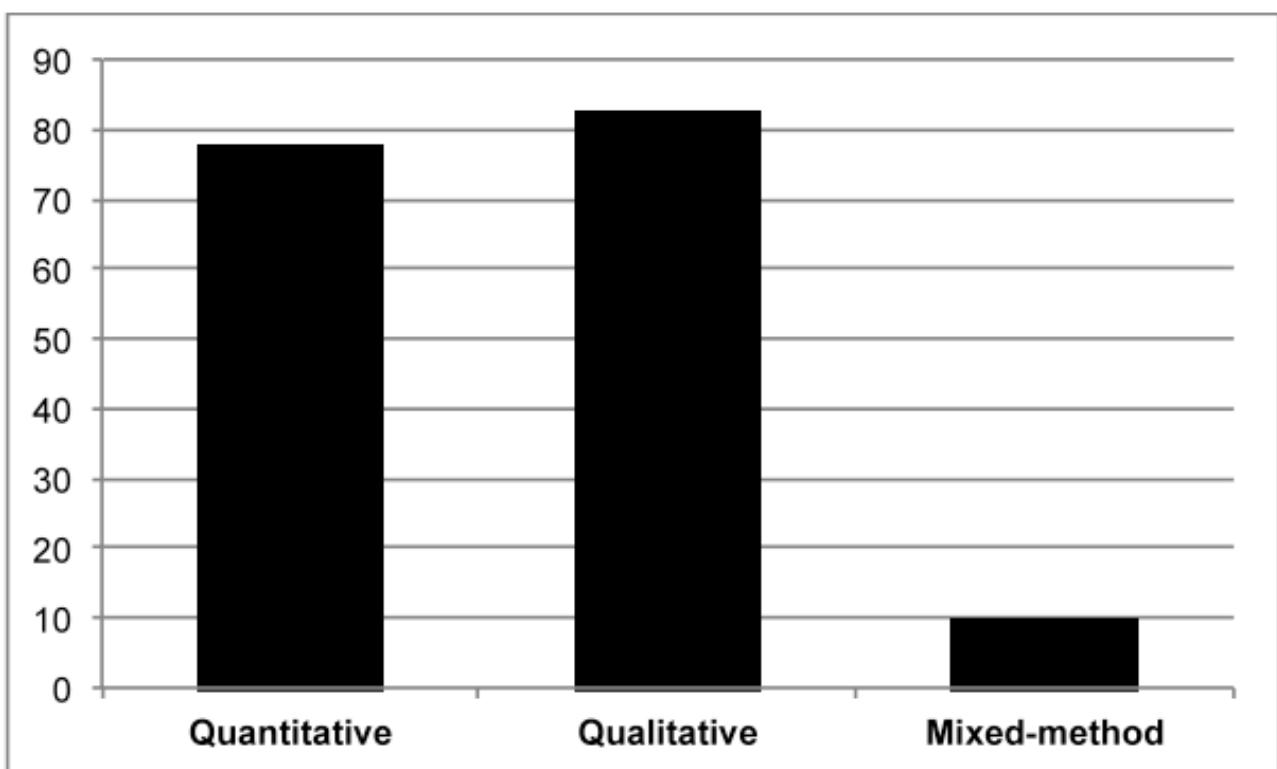
In order to identify relevant studies in a first step the databases Emerald as well as Business Source Premier (only including peer reviewed academic journals) have been used. Additionally, if not covered by the database the following journals have also been individually included in the search process: Accounting, Organizations and Society, Business & Society, Business Ethics – A European Review, Business Ethics Quarterly, Business Strategy and the Environment, Corporate Social Responsibility and Environmental Management, Ecological Economics, Greener Management International, Sustainable Development, Journal of Business Ethics. As the aim is to give an up to date overview on the empirical research activities, the years 2006 to the end of 2011 have been considered. As key words for the search in the databases corporate social responsibility and corporate sustainability have been used. However, the paper does not claim to contain all relevant empirical studies. Due to the enormous amount of studies and dynamic of the research field this is not seen as realistic. Nevertheless, the paper identifies some interesting points of the CSR research agenda.



## Results and Discussion

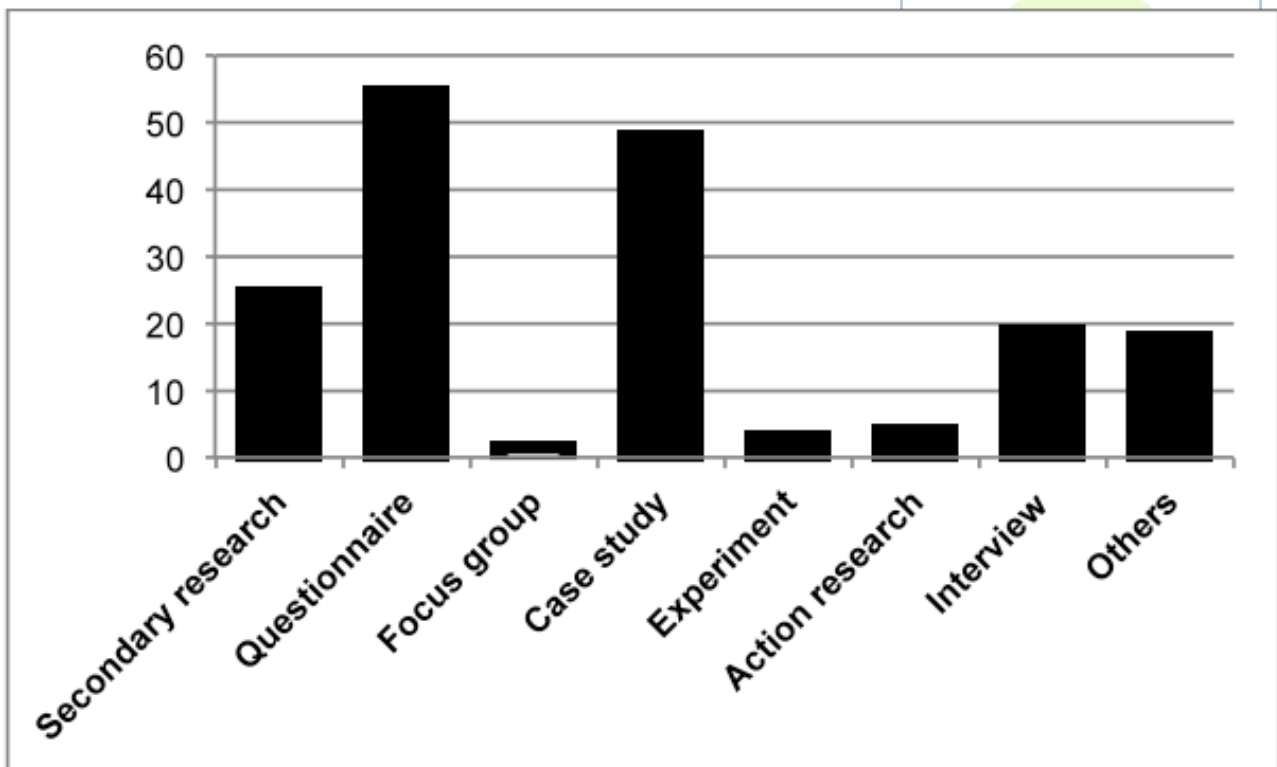
In total, 165 empirical studies have been identified, based on the above described search strategy. In a first the step it seems of importance, whether the studies are in its empirical nature qualitative or quantitative. If the researchers use both types in one study they are classified as mixed-method. Lockett et al. (2006, p 132) have found in their review that, contrary to their expectations, the studies have been overwhelmingly of a quantitative nature. They argue that this is the result of the considerable amount of studies that focus on the business case of CSR and logically analyse the link between corporate social performance and corporate financial performance in a quantitative manner. The results for this review look as follows:

**Figure 1: Nature of empirical studies (Source: own illustration)**



The analysis has revealed that the majority of the studies show a qualitative nature (81). However, a considerable amount of the studies, focusing on organizational and management aspects, follow a quantitative approach (76). Similar to Lockett et al. (2006), the authors would have expected the qualitative approach to be more often applied in comparison to the quantitative approach. Only eight studies apply a mixed-method approach. As a next step, the research design of the studies shall be analysed in more detail. The results can be illustrated as the following figure indicates:

Figure 2: Applied research design (Source: own illustration)



Taneja et al. (2011, p 352) found that focus groups and action researches are not very popular. This result is also confirmed by the present analysis. Whereas Taneja et al. (2011, p 352) identified secondary research as the most common research approach, the present analysis revealed that questionnaires and case studies are the most popular approaches in the CSR domain.

With regard to German situation, the following section discusses empirical studies carried out in Germany in detail.

### Empirical Studies in Germany

A recent study in Germany by the management consulting company Kienbaum analysed the status quo of sustainability at 28 of the largest German corporations. Kienbaum (2010) followed a three step research approach which includes the analyses of sustainability reports, questionnaires and telephone interviews. Their results revealed that about 41 % of the participating companies focus on reporting aspects. Only about 24% state to have implemented CS and manage sustainability in a comprehensive way. Furthermore, they identified in 54% of the companies a difference between the importance of sustainability reported and how sustainability is managed actually. The authors conclude that there is an acute need for action, in order to avoid a loss of credibility. Finally, they found with about 12% a very little importance of the integration of sustainability aims into the remuneration of managers. This lack of importance can be interpreted as an uncertainty of companies about their sustainability aims. However, systems that measure and reward performance and encourage employees are often necessary to increase a company's CSP and consequently also long term CFP (Epstein et al., 2010).

Schaltegger et al. (2010) conducted an empirical study among the 500 biggest corporations in Germany, in order to analyse the implementation of sustainability

management in a comprehensive way. In total, 112 questionnaires were analysed. The study revealed that about 75% of the participating companies have partly or comprehensively linked aspects of sustainability management with core business. However, the question, whether this linkage holds truth for the whole corporation or only selective parts, could not be answered. With regard to the implemented management instruments it has to be stated, that integrated management instruments are rarely used; on the contrary e.g. quality management systems, environmental management systems and environmental audits are quite widely used. There seem to be indications that the application of management instruments is linked to their prominence, so the authors conclude that a simple way to increase to use of sustainability related management instruments is to increase people's knowledge about them. Nevertheless, the authors ask for a stronger cooperation between academics, consulting companies and companies, in order to align better the existing instruments to practice or to develop new management instruments, especially with regard to social aspects. Furthermore, Schaltegger et al. (2010) found that the interaction between stakeholder and companies is mainly based on observance and information providing. An extensive cooperation, integration or even trustful discussions is often seen as a factor of risk. Therefore, it can be observed at best on a rare single case basis but remains all in all relatively uncommon. With regard to a strategic view, the study revealed that German corporations mostly follow an internal-oriented, defensive and offensive approach as well as defensive society-oriented sustainability strategies. The prevalence of internal-oriented and defensive approaches may lead to the conclusion that the overall aim of companies is to reduce potential risks and not to generate new markets or to follow a proactive market-oriented sustainability strategy. A remarkable result is that management control and finance departments are almost not involved in aspects of sustainability management. Taking into account the importance of business support for a comprehensive enterprise-wide implementation of sustainability, this result also nourishes doubts of an enterprise-wide implementation (also Kraus, 2011).

Herzig&Schaltegger (2009) also found that finance departments are involved in aspects of sustainability management to a very low extent. However, the authors emphasize the importance of the information providing function of accounting and finance departments for the management. As management decisions fostering implementation sustainability should base on a comprehensive information base, the authors recommended involving finance departments much more in sustainability aspects. Based on a questionnaire, Deloitte conducted a study among 55 large companies of the consumer goods and retailing industry in Germany. Deloitte (2009) confirms the very low integration of management control departments in aspects related to CS, however, it also found that CS might not be that strongly integrated in a company's strategy as other studies revealed. Whereas reporting about sustainability is of very high importance, 86% of the companies publish CSR-reports, 71% according the GRI guidelines but only 29% of the reports are externally certified. Furthermore, the companies state that especially in production CS is of very high importance, but companies could hardly name the applied standards, management instruments or a code of conduct. The study finally concluded that there is an enormous gap between a high gloss reporting about sustainability and the implementation of CS.

With regard to an international perspective, there can be mentioned a recent survey conducted by KPMG. Conducting a global survey of 378 senior executives KPMG (2011a) found that 62% of the companies have a strategy for corporate sustainability. In comparison to 2008, the number of companies almost doubled. 44% of the executives

see sustainability as a source of innovation and 39% even assume new business opportunities related to CS. However, there can be named three obstacles of implementation (KPMG, 2011b):

- A lack of consistent criteria and approaches to measure and analyse the impact of CS management.
- Missing budgets that allow treating sustainability projects equally to other projects which promise short term profits.
- No mandatory international regulatory frameworks that enable companies to do a long-term and reliable planning.

It has to be stated that the results of the empirical studies should be viewed with caution. Undisputable is, that German corporations attach high value to aspects of sustainability. However, based on the conducted empirical studies in Germany, it is highly questionable that the implementation of CS management instruments is comprehensively carried out. It rather seems that corporations still tend to disclose positive aspects of their sustainability engagement in sustainability reports but have not implemented CS in a company-wide comprehensive manner. To do so, a strong integration of management control departments can be seen as indispensable. To understand the needs of practice and to provide the base for the development of applicable management instruments a comprehensive cooperation between academic and practice is needed. Furthermore, empirical studies in the future may use qualitative research approaches, in order to understand better the vague and complex attitudes of CS.

## Conclusion

The aim of the paper was to provide a general overview on definitions, theories and recent empirical research in the CSR domain. With regard to the terminology of CSR the discussion revealed that the research domain is still lacking of a clear paradigm. As the concept can be characterised as a contested concept according to ECC, one could not expect that a single theoretical base will be agreed on in the near future. The paper identified three relevant attempts in order to categorise the CSR debate. These attempts have been discussed and compared with each other.

Of particular importance for the paper was to provide a first insight into recent empirical research attempts with a focus on organisational aspects of CSR. In total, 165 studies have been identified between 2006 and the end of 2011. With 81 studies a slight majority of the studies show a qualitative characteristic. Due to the vague nature of CSR one could have expected the qualitative research approaches to be more popular, especially when focusing on organisational aspects of CSR. The analysis has further revealed that questionnaires and case studies are the most commonly used research approaches in the CSR domain.

Subsequently, the paper focused on empirical studies conducted in Germany. The discussion of these studies revealed that the implementation of CSR has not yet been carried out in a comprehensive manner. An indication for that might be that finance and management control departments are almost not involved in CSR issues.

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## **Blogtrip # Incostabrava or the use of bloggers as a destination image ambassadors**

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### *Abstract*

*The use of 2.0 web technologies for destination marketing purposes was rising during last years and nowadays the use of social media as marketing tools is an actual hot topic on tourism research.*

*DMO's also tried to exploit these tools in order to attract the so called digital generation, but they faced the problem of credibility and trust. Tourists tend to untrust official information thinking that it is biased. On the other hand the peer to peer tourism information exchange is perceived as a better source because apart of coming from non-official sources it is based on experiences and emotions of individuals.*

*So this paper examines a marketing strategy already applied at the Costa Brava destination that is combining the peer to peer information exchange, so the non-controllable image, with the emission of the official idea of the destination experiences. We call this strategy blogtrip. Instead of inviting traditional press or travel agents, the blogtrip invites relevant travel bloggers that have a positive digital reputation, trying to transform these bloggers into ambassadors of the destination.*

*The main outputs of this paper are the methodological approach used to develop and manage blogtrips, and the measurement of the marketing impact of this strategy. As conclusion this new destination marketing strategy helps to catch the attention of the digital generation tourists.*

### **Introduction**

Destination managers, and above all such destinations' heads of marketing, can no longer base their entire virtual promotional efforts on official websites, and require a profound change in current online promotions (Han & Mills, 2006). Official websites no longer fulfil the current needs or interests of consumers in terms of planning their trip. Tourists are looking for experiences, and although some official websites have included forums or walls where tourists can supposedly leave their opinions, these are often seen as part of the promotional "apparatus".

What is certain is that tourists are after experiences, and that one of the aspects of tourism in general is that it involves an experiential component. This generation of experiences, together with the need on the part of some tourists to share and explain theirs, has created the perfect conditions for the emergence of tools such as travel blogs, which are independent of the destinations. Traditional word-of-mouth has now gone



virtual (Volo, 2010) ("from word of mouth to word of mouse"), allowing future tourists to learn from the experiences of a large number of previous tourism consumers.

Although the impact of such virtual word-of-mouth on the process of deciding whether to choose a particular tourism product or destination has not yet been proven and requires more in-depth research employing new methods (Pan et al., 2007), such virtual communities of user-generated content are creating major opportunities to obtain data for research in the field of tourists' experiences (Volo, 2010)

These effects have prompted various DMOs and heads of marketing to attempt to understand how to use the credibility, trust and relevance of virtual content generated by consumers themselves (Mack et al, 2008; Schmallenger & Carson, 2008). According to Volo (2009), tourists are "mental locations" where the tourism experience occurs, and access to this whole volume of information, and what is more free of charge, represents a unique chance for heads of marketing to observe tourists in their natural mental environment.

## Stories and destinations

Destinations involve a high level of complexity and fragmentation (Lichrou et al, 2010), with narrative recognised as the framework within which marketing and the general consumption process can be understood, in particular in connection with brands (Lichrou et al, 2010). Clearly, the tourism brand concept is closely tied to companies, but above all to destinations.

Consideration must also be given to the existence of stories which prompt tourists to visit a destination and also to satisfy their needs connected with specific values (Woodside, 2005), and often the transmission given by tourists to these stories influences the decisions taken by other people to visit particular destinations (Martin and Woodside, 2011). The creation of micro-stories about a destination by influential and credible tourists through virtual environments, such as blogs or social networks, could then generate a considerable influence on the decision to visit that destination.

It should be remembered that the values and principles of each society are handed down from generation to generation through stories or narratives. They stimulate our imagination, entertain us, and emotionally engage us (Jensen, 1999). It would therefore be fair to say that tourists are already used to stories, and they therefore represent a universal language of communication.

Nonetheless, one global trend in the experience industry involves building a whole business or part of a business on the basis of a story (Mossberg, 2008), and according to the same author this could be applied to a product, an organisation or indeed a destination.

There are multiple links between stories and destinations. For example, Bendix (2002) argues that narrative serves to illustrate how the destination receives tourists through the stories which it itself or others have placed in circulation. Meanwhile, Lichrou et al. (2010) believe that it is the narrative which serves to reveal the dynamic and multi-faceted nature of destinations.

Narratives and stories about tourism experiences have always been popular, whether the real-life accounts of the Grand Tour of the 17th-18th centuries, or fiction such as Jules Verne's popular travel books. Cinema has also served to create narratives, as for example in the case of the Lord of the Rings and New Zealand.

If, however, we ask ourselves why there may be an interest in creating destination stories, we could then turn to the three main arguments suggested by Mossberg (2008). (1) One of the greatest benefits of creating a story is that if one is successful in building the story it then becomes practically impossible to copy, quite aside from the volume of media attention which can be captured.

However, (2) the key argument in creating the story is that if it is successful it will allow tourists to plunge in and so feel the need to live the experience for themselves. Likewise, though, the staff involved must know how to treat and serve tourists in accordance with the history and the prerequisites to be generated.

It would thus seem clear that (3) narrative can be used by organisations or destinations to communicate stories at various levels, such as strategy or marketing.

Those destination brands or names which have been widely employed and shared have become iconic expressions, some of them originating in days gone by long before the existence of tourism. It is important to realise that a part of the experience of a brand or destination is often stored in your subconscious (Martin & Woodside, 2011), but this gradually helps you form the overall image which you retain about that particular brand or destination. Gladwell (2005) concludes that narratives or stories are retained in the subconscious and that these memories emerge instantaneously at the point of decision-making.

Beyond this, though, in the modern world travel magazines or tourism supplements in traditional newspapers now have a great appeal among a general audience. If, though, we turn to the academic sphere in particular, fields such as psychology, marketing or sociology when applied to consumer behaviour are those which have focused their attention on the value of narrative and story in the communication of experiences by tourists (Volo, 2010). It has among other aspects been noted that stories and narratives shared with friends and relatives, whether virtual or not, generate an influence on the image of the destination which they have from the point at which they hear or read the story.

The story or narrative about a destination can lead the same tourist to develop an interest in a future visit to the destination, or otherwise generate interest in another person, or instead generate non-interest.

However, if we question how a destination can build its own story, then the narrative components must be clearly established. The elements of a good story, according to Mossberg (2008) are as detailed below:

- A story is built on fundamental dramatic elements, such as for example the message, conflict, division of roles or actions.
- A good story has credible basic elements.
- In order to feel immersed in a story, tourists need to distance themselves from everyday life.

- A guide can help immerse tourists in the story.
- If tourists feel engaged they may feel themselves immersed in and captivated by the story.

A destination's story is often based on myths and icons. One clear example of the tourism myth would be the island of Ibiza. Everyone can undoubtedly call to mind one of the two myths associated with the island: the hippie lifestyle myth or otherwise the mould-breaking nightlife myth. One example of a tourism icon which everyone can imagine is the Eiffel Tower. It is what everyone identifies with the destination, and which also suggests values such as an industrial tradition, the avant-garde and other aspects. Both myths and icons can become brands in themselves.

The icons could also be people (Martin & Woodside, 2011). For example, in the case of the Costa Brava then Ferran Adrià, considered the world's best chef for five years running, has become an icon for gastronomic tourists, driving the pioneering gastronomic, cultural and continuously innovative value of the destination.

## Blogs as creators of destination stories

### Blogs as a destination marketing resource

Blogs are becoming an important tool for the exchange of information among tourists (Wenger, 2007), and have opened up an avenue by means of which companies and destinations, through their DMOs, can learn about the attitudes of their markets and consumers.

Travel blogs contain a wide range of messages, some intended to explain specific characteristics such as the attraction of certain locations or products, the quality of service received or value for money, while other messages simply express feelings, such as for example movements induced by some experience, sensation of perceived safety, and others.

Blogs can, then, as a source of tourism information, be analysed in order to identify tourists' positive and also negative perceptions. Douglas and Mills (2006), cited by Wenger (2007), also suggest that travel blogs could likewise provide highly detailed information about the attitudes of consumers at the destination.

Communication among consumers is critical in defining and reinforcing the destination's image, even when other sources of information are consulted (Beerli & Martin, 2004). It must be remembered that blogs are seen as opinions free of external or official "censorship", and bloggers are thus perceived as telling the true story (Rak, 2005).

Travel blogs are destined to enjoy growing word-of-mouth influence, and are becoming one of the most popular and heavily employed resources in the online world for consulting consumer opinions (Hitz et al, 2006).

The value of monitoring and analysing blogs lies in knowing how to locate the authors of those blogs that could have the best and greatest influence on your key markets (Wenger, 2007), although it must also be remembered that not everything written on the blogs is managed by the blogger, but rather a substantial proportion of the impact of a blog is generated by the participation and contributions of consumers/blog followers.

According to Mossberg (2008), the way to get a destination to communicate is to have a good guide, bearing in mind that neither the guide nor the organisation can create experiences; only tourists can create their own, but one can generate the prerequisites allowing the experiences then ultimately to be generated (Mossberg, 2008).

## Bloggers as destination ambassadors acting as guides

### Blogs as a possible story builder

We thus find three key values: receptivity to the message (through creation/preparation of the blog trip by the DMO), its incorporation within the person's consciousness, meaning that it will be retained (through the blogger's experience), and dissemination of the trip by the initial recipient (the texts written on the blog about the destination).

### Organisation of a Blogtrip to build the story

The Costa Brava Girona Tourism Board currently has the objective of promoting the Costa Brava and Girona Pyrenees brands on a range of international and domestic target markets. In order to do so it is focused on adapting new technologies and new forms of communication, in particular in line with trends in communication 2.0. Through social networks, its official blog and a presence in shared use applications and locations an attempt is being made to become an inclusive, rapid, agile and interactive destination, allowing users to exchange information and form opinions.

The philosophy of the blogtrip lies within this context. The blog trip aims to show opinion-leaders in the "travel blogger industry" the selected destinations, so as to generate information about the bloggers' experiences across a range of social platforms such as Twitter, travel blogs, Flickr and Facebook.

The participants have the opportunity to explore the Costa Brava destination by means of a pre-designed, fully-paid trip. Over the course of the trip's 7 days the participants can source information and load all of their content into their respective social communication channels. As a result, although the blog trip is similar to a press trip, we will find that blog trips enjoy a greater scope, and also greater credibility.

Comprehensive and detailed planning and ambitious objectives in order to bring on board the entire public and private tourism sector. The project must succeed in bringing on board local tourism offices, hotels, restaurants, chefs, fishermen, artists, museums, singers... Even those who do not need promotion should be directly involved in the action. It is absolutely vital to realise that travellers desire and are seeking an experience; they place no value on and have no interest in the administrative limitations or regional responsibilities of each authority at the destination.

The blogtrip needs to be planned in order to allow the participants to uncover personal experiences and stories which they will, at a subsequent stage, be able to pass on to their readers. This thus serves to create a degree of empathy between bloggers and their readers, thereby also giving greater credibility to the written entries on the blog and heightening the link with the author.

The two main driving forces behind the blog trip will to begin with be the desire to create an innovative, pioneering, active strategy which has not previously been organised in the

region. Meanwhile, there is an interest in personalising the destination, generating stories, icons and accounts which will make the destination more memorable.

The aim with the blogtrip was clearly to achieve brand recognition, and to communicate the attributes and values of the destination, which may be summarised as: Nature, Culture and Gastronomy. The blog trip for this reason involved local narrators who would be able to transmit these values through their own life stories and experiences. It may in summary be stated that the organisation of a blog trip demands the following:

- Organise experiential visits.
- Inspire people to speak about and promote the destination through experiences.
- Involve local agents and personalities in order to give the story authenticity and credibility.
- Focus on content unavailable on any tourism or information website.
- Manage travel time intelligently.
- Schedule free time allowing participants to use this to write texts, upload photos, upload videos...
- Give bloggers time to explore the destination independently and to administer their own experience.
- Generate contact between the bloggers and local bodies and businesses.
- Explain the results in terms of media impact.

Once the generic elements involved in organising a blog trip have been defined, one can then emphasise the two central elements: (1) selection of participants, and (2) definition of the route of experiences to be presented.

To begin with, the selection of participants represent a crucial factor in organising blogtrips. Remember that the aim is for the bloggers to become ambassadors or guides for the destination, and we therefore need (1) to identify the most influential bloggers, (2) those with the potential to reach the broadest audience, (3) and those who can reach the specific audiences which the destination has defined. It is likewise important that (4) the bloggers should be travel enthusiasts and (5) be well-informed regular users of social communication media, aside from their own blogs.

It was lastly decided to invite individuals who fulfilled not only the above characteristics but who had also never visited the destination, the aim being to prevent any pre-established image from conditioning the experience.

Next, definition of the route of experiences to be presented needs to sidestep any clichés about the destination and focus on offering potential standout aspects, which clearly in connection with story-building would make the experience memorable. A programme is thus designed with the aim of finding a story to tell the bloggers each day.

The participants do not know the route in advance: it is gradually revealed day by day. The idea here is to achieve a surprise effect, building expectation on the part of the bloggers but also among their followers, generating traffic peaks and online interest.

### Blogtrip #IncostaBrava: structure and results

The selection of the 16 bloggers was dictated by means of the different criteria established in the methodology. 16 bloggers were chosen with a twofold objective: first to

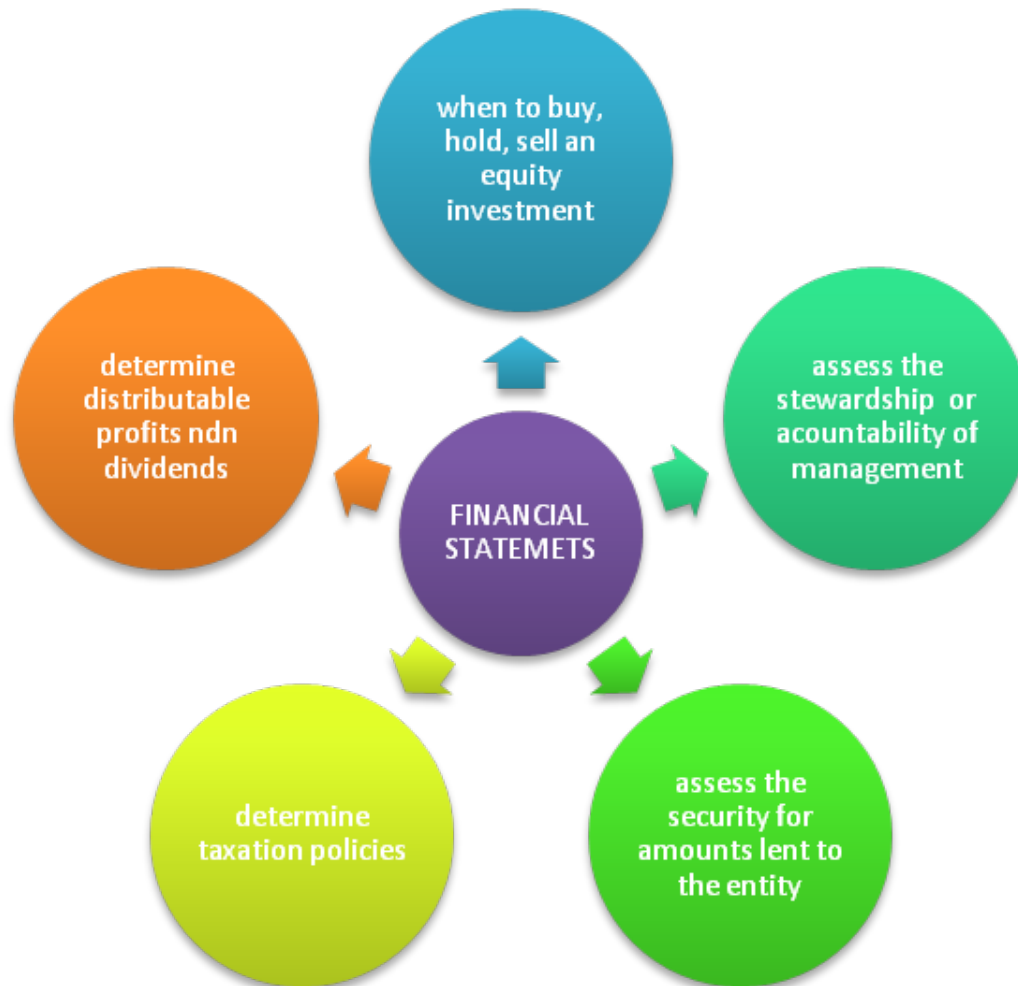
achieve different posts across different demographic and interest segments, and second to generate enough real-time communication in order to succeed in attracting online interest while the action was being performed.

Following accurate analysis the Tourism Board, in line with its own objectives in terms of promotion and dissemination of its geographical area, selected the following bloggers whose names are not directly given, although we do provide the link to their travel blogs.

Country	Blog link
Germany	<a href="http://www.traveldudes.org">www.traveldudes.org</a>
The Netherlands	<a href="http://velvetescape.com">velvetescape.com</a>
Belgium	<a href="http://www.IsabellesTravelGuide.com">www.IsabellesTravelGuide.com</a>
UK	<a href="http://www.europebudgetguide.com">www.europebudgetguide.com</a>
UK	<a href="http://www.insidethetravellab.com">www.insidethetravellab.com</a>
UK	<a href="http://www.john.onolan.org">www.john.onolan.org</a>
Spain	<a href="http://www.buzztrips.com">www.buzztrips.com</a>
Spain	<a href="http://www.buzztrips.com">www.buzztrips.com</a>
Spain	<a href="http://www.wildjunket.com">www.wildjunket.com</a>
Spain	<a href="http://www.youtube.com/viajandocondiego">www.youtube.com/viajandocondiego</a>
Spain	<a href="http://www.tripwolf.com">www.tripwolf.com</a>
Austria	<a href="http://www.tripwolf.com">www.tripwolf.com</a>
EUA	<a href="http://www.andyhayes.com">www.andyhayes.com</a>
EUA	<a href="http://www.blog.brillianttrips.com">www.blog.brillianttrips.com</a>
EUA	<a href="http://www.blogs.nationalgeographic.com/blogs/intelligenttravel/">www.blogs.nationalgeographic.com/blogs/intelligenttravel/</a>

This promotional tool offers an easily quantifiable return far in excess of the Tourism Board's own promotional budget. The main reason for organising this activity is in any event the credibility of the reportage in the eyes of readers or media consumers. In contrast to advertising, the credibility of a feature independently produced by a journalist or media professional offers a degree of reliability which it is impossible to achieve through advertising.

Press trips in general aim to present the invited media with the broadest possible spectrum of available tourism resources in the destination, with the aim that the media should compile information for their subsequent report.



Creation of the programme for the blogtrip #incostabrava bore in mind that the bloggers were looking for personal stories and experiences to tell their readers about, creating an empathy which underpins the credibility of the blog, along with the link to the author.

## Results

The Costa Brava Girona Tourism Board monitored bloggers employing different criteria and measurement tools, such as Tweetreach, Socialmention, openStreetMap, along with extensive monitoring of articles published on the web.

The key index was the bloggers' own publication of posts on the web. Up to September 2011 these bloggers had published a total of 80 posts in their respective travel blogs.

On the basis of the quality of these posts, 23 of them had been selected by the prestigious international travel guide Lonely Planet, and published on its own website.

It is unfortunately impossible to offer precise figures as to the number of visitors to these posts, as Lonely Planet does not provide specific traffic data. The estimated overall result up to September 2011 provided in confidence by the different bloggers was in excess of 527,000 visits.

An estimate based on Lonely Planet traffic could add a further 2,000,000 visits to the published posts. There are also calculated estimates suggesting that the bloggers posted more than 500 photos on the web, using TwitPic, Flickr, panoramio or other tools, with

more than 100,000 visits. We for example have the blogger Brilliant Tips' evaluations of his/her own photos on Twitpic. Some of the photos, such as this image of Girona, have 1650 visits.

The studies performed by TweetReach from 6 to 15 May recorded a total of impacted Twitter users of 490,261.

Total tweet impressions – 17,765,723

The blogtrip and hashtag #incostabrava continue beyond the period of the blogtrip but have been measured.

According to the analysis tool contracted, there were more than 1720 mentions of the blogtrip #incostabrava in the traditional media. A measurement tool was also employed to establish the source of Tweets and Retweets on the web. Maps were generated revealing that the tweets came from more than 25 countries, demonstrating the international scope of the project.

## Conclusions and future research

With regard to the key objective, although literature on the impact of blogs and the creation of narratives refers mainly to the creation of stories by companies and brands, academic trends indicate that blogs are a source of information for destinations which are of considerable value to tourists within their context because of their free opinions based on perceptions and feelings (Wenger, 2007), as we saw in this study, and that narratives are based on these perceptions and feelings to create myths resulting in a destination story.

We can therefore give a positive response to the main objective, and thus believe that a blogtrip can help build a story about a tourism destination.

Compared with other studies about the influence of blogs on the net, one may conclude that "word of mouse" in the articles published as a result of the blogtrip #incostabrava enjoyed considerable opinion-forming power, and employed a language closely tied to experience, emotions and feelings, along with the stories and micro-narratives uncovered in the destination. Other studies have analysed travel blogs (Volo, 2010) in which bloggers simply described their activities and a timeline of their trip, without engaging in-depth in any story or any type of feeling.

Three future lines of research are anticipated. The first deals with extracting the story generated by the blogtrip. To this end we propose an in-depth analysis of the comments on the different articles of each post, tying these to the degree of influence of the blogger. The destination has already scheduled other blogtrips which will allow for comparative analysis in order to ascertain whether the degree of effectiveness is tied to novelty, or the attractions offered by the destination, among other factors.

One other line of research is to analyse whether the local community accepts the story generated through the blog trip, and if this story is relatively consistent with the tourism reality. Along similar lines a measurement of the image gaps generated by the story built externally (via blogs) and internally (issued by the DMO) could offer revealing results.



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## Model to optimize recommendation engines in off-line retail settings

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### Abstract

*The aim of this paper is to investigate the suitability of Recommender Engines for situations in which only binary pick-any customer information is available.*

*Retailers understand that their customers' shopping history can be used to personalize the shopping experience. In e-commerce the usage of Recommender Engines is already well-known. Companies like Amazon led the movement to provide effective customer recommendations systems. Amazon's recommendations are generated from customers' shopping history and compared to others via collaborative filtering. But as valuable data sets are available in the off-line retail setting, personalization is no longer restricted to the online environment. In the past, only recommendations on the base of product categories (items) from the retailer's product hierarchy were used.*

*This paper recommends an extension of the usage of recommender algorithms on data-driven product clusters (items) and the application onto a real-world grocery retail transaction data set of 100000 customers. The new method is bench-marked to other approaches and delivers superior results in terms of predictive accuracy.*

*Keywords: Collaborative filtering; Recommender systems; Market basket analysis; Cross-category effects; Data mining.*

### Introduction

The food retail business environment is characterized by fierce competition and saturated markets. In this context, companies increasingly derive revenue from the creation and enhancement of long-term relationships with their customers. This approach towards customer-centric marketing, coupled with the increased availability of customer-transactional data, has made Customer Relationship Management (CRM) the leading strategy for marketing decision makers and is also reflected in many companies' significant investments in CRM (Coussement, Benoit, & Van den Poel, 2010 according to Reinartz & Kumar, 2002; Teo, Devadoss, & Pan, 2006). Companies realize that their existing customer database is their most valuable asset (Coussement, Benoit, & Van den Poel, 2010 according to Athanassopoulos, 2000; Jones, Mothersbaugh, & Beatty, 2000; Thomas, 2001). Retailers such as hyper- and supermarkets have to either match the

discount prices or stimulate customers' demands through promotions (Huchzermeier & Iyer, 2010, S. 379). The 21<sup>st</sup> century consumer is dynamic, volatile, incalculably and does not fit into a standard scheme (Riekhof, 2008, S. 62). An important trend in the context of CRM is the one-to-one-marketing approach. According to Kolodziej, the establishment of one-to-one-marketing will be one of the most important tendencies of the next years (Kolodziej, 2006). Morschett further observed that personalized customer information allow an adaption of retail marketing in regard to the needs of single consumers as well as to one-to-one-marketing (Morschett, 2006). For the implementation of one-to-one-marketing data a database is utilized.

Retailers understand that their customers' shopping history can be used to personalize the shopping experience, for example by sending every customer an individual coupon with product recommendations that will meet the customer's needs. In e-commerce the usage of Recommender Engines is well-known. Companies like Amazon led the movement to provide effective customer recommendations systems. Amazon's recommendations are generated from the customer's shopping history, and further compared to others via collaborative filtering. But now personalization is no longer restricted to the online environment, since valuable data sets are also available in the off-line retail setting.

In the past, other papers discussed the implementation of a recommender system with collaborative filtering (CF) in off-line retail settings.

CF is originally based on voting scores through which customers express their preferences. However, customers seldom, if ever, vote on the products they use. That is why the CF suffers from sparsity of votes, in fact one of its major problems, and lets companies constantly endeavor to obtain more scores (Lee, Jun, Lee & Kim, 2005).

In order to overcome this problem, some researchers proposed a new CF scheme using market basket data (Mild & Reutterer, 2001, 2003), which can be transformed into a so-called binary user-item matrix, defining customers (users) and products (items) as ones (1 = purchases) and zeros (0 = non-purchases). This scheme has the advantage that there is no need to gather voting scores at all and thus the possibility of evaluating distorted scores can be excluded. However, it usually results in a poor recommendation accuracy (Lee, Jun, Lee & Kim, 2005).

To improve the recommendation performance, Lee et al. (2005) propose a model-based CF scheme which utilizes binary logistic regression models as a classification tool. Through numerical experiments with a real data set, they evaluated the proposed scheme and demonstrated a significant performance improvement.

This paper recommends a more extensive usage of recommender algorithms. While other researchers used product categories as items for the analysis, in this paper the experiment is based on data-driven product clusters as items.

For this research personalized transaction data was made available through the cooperation with a hypermarket chain, which belongs to one of the largest retailers in the world. Through the existing loyalty program of this hypermarket chain, the study was provided with a sample of 100 000 customer data including 33 million transactions from one year.

## Data Driven Product Cluster

In this chapter the creation of a data driven product cluster is explained. The first step is to create a matrix of associations identifying the relationship between the products. This matrix contains all the two-way associations between the articles. For the associations measure Yule's Q will be used. Yule's Q measures the correlation between two possibly related dichotomous events (E1 and E2) given by the formula:

$$Yule's Q = \frac{a*b - c*d}{a*d + b*c}$$

with

a = the number of times E1 happened and E2 happened

b = the number of times E1 did not happen but E2 happened

c = the number of times E1 happened but E2 did not happen

d = the number of times both E1 and E2 did not happen

All two-way associations between all products have to be calculated and transformed into a distance matrix. The result is a two-way association matrix like it is depicted below:

$$X_{..} = \begin{matrix} & x-11 & \dots & x-1p & \dots & x-1P \\ \vdots & \vdots & \dots & \vdots & \dots & \vdots \\ x-l1 & \dots & x-lp & \dots & \vdots & \vdots \\ \vdots & \dots & \vdots & \dots & x-L1 & \dots & x-LP \end{matrix}$$

The distance matrix is then entered into a cluster analysis and while a type-distance wards the minimum variance, clustering is used to combine the products into a cluster. Objects that exceed a defined measure of heterogeneity and prove more alike than others were fused to groups. The distance between the lastly build cluster and the other clusters is calculated with following formula:

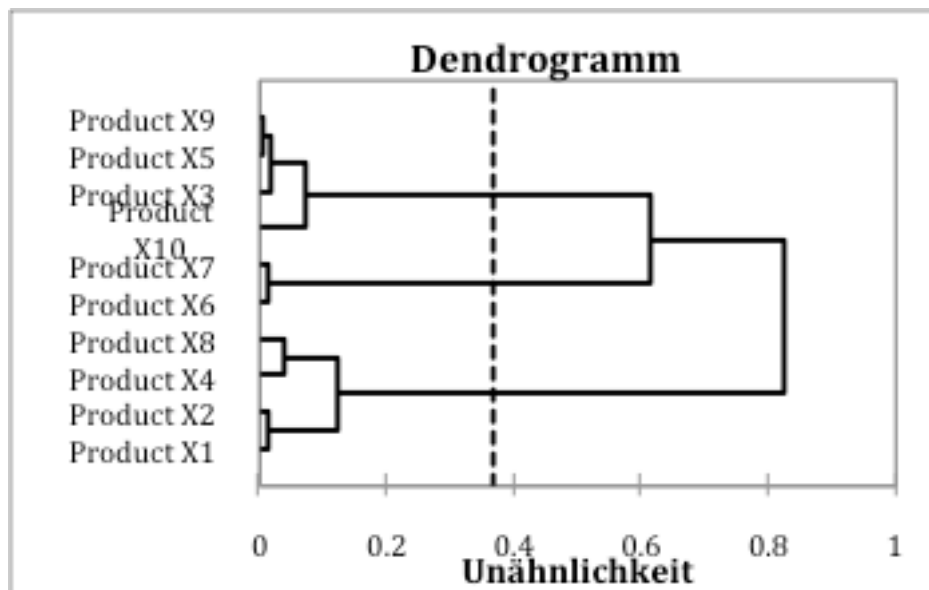
$$D_{R;P+Q} = \frac{1 - NR + NP + NQ}{NR - NP * D_{R,P} + NR + NQ * D_{R,Q} - NR * D_{P,Q}}$$

Target of the ward method is to combine objects or groups that increase the variance as little as possible. The variance criterion (error square sum) which is used as a measure of heterogeneity is calculated for group g like shown in the following equation:

$$V-g = \sum_{i=1}^I \sum_{k=1}^K (x-ikg - \bar{x}-kg)^2 \dots$$

A graphical illustration of the results is shown in figure 1.

**Figure 1: Dendrogram**



The output of this example could show that the products X9, X5, X3 and X10 form product cluster 1, products X7 and X6 form product cluster 2 and products X8, X4, X2 and X1 form product cluster 3.

On our dataset we created 250 different product clusters. The Recommender Algorithm will use the product clusters as items for the calculation.

## Recommender Algorithm

According to Klahold (2009), a referral system is a system which actively recommends a subset of "useful" items to a user in a given context from a given entity set.

Literature emphasizes two "traditional" approaches of recommendation systems, namely the content-based filtering (content-based filtering (CBF)) and the community-based filtering (collaborative filtering (CF)). The context-based filtering (context filtering (COF)) is still not widely referred to in literature due to the relevance of technology in the context of the recommendation systems. In the field of computer science, the concept of context sensitivity 4 (also known as context-awareness) has been used already for some time now. These programs utilize the context of their environment in order to filter relevant information and/or carry out adjustments to the situation of the user (Runte 2000, p. 9).

In non-personalized recommendation systems a recommendation refers to a mass of recipients, i.e. the absolute recommendation is the same for all recipients. Examples for this are all top- and bestseller lists, since these lists reflect the preference values of a

wide range of users. Product configurations that have been mentioned in the course of the concept of personalization are another example for this.

Personalized recommendation systems, however, generate individually appropriaterecommendations; they take the personal preferences of the individual recipient for the given recommendation into account. Personalized recommendations include the techniques of content-based filtering, collaborative filtering, as well as context filtering.

Personalized recommendation systems are the main focus of this work. The paper hereby includes the following algorithms.

## Nearest Neighbors

Instance based classifiers work by storing training records and using them to predict the class label of unseen cases. Nearest Neighbor is one of the most common approaches to CF - and therefore to designing a Recommender System. One of the advantages of this classifier is that it is conceptually very much related to the idea of CF: Finding like-minded users (or similar items) is essentially equivalent to finding neighbors for a given user or an item.

## Bayesian Classifiers

A Bayesian classifier is a probalistic framework for solving classification problems. It is based on the definition of conditional probability and the Bayes theorem. In particular, the probability of a model given the data is proportional to the product of the likelihood times the prior probability. The likelihood component includes the effect of the data while the prior specifies the belief in the model before the data was observed.

## Experiment

For the experiment the Bayesian Classifiers and the Nearest Neighbour Algorithm were used. In a first step items were defined as product categories, and in a second step data driven product clusters were used for items. The results of the two competing approaches are shown in table 1 below.

**Table 1: Hit Rates**

Hit Rate	Product categories		Product Cluster	
	Bayesian Classifier	Nearest Neighbour	Bayesian Classifier	Nearest Neighbour
Average Precision	0,357	0,376	0,532	0,563

The results reveal that taking product clusters as items has proven much more precise than defining items as product categories.

## Conclusion

This paper proposes a new approach towards collaborative filtering (CF), using a binary user-item matrix based on the market baskets and defining items as product clusters. A comparison between the usage of product categories as items and this new approach clearly showed, that data driven product clusters outperform the results of product categories.

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## Short-term financing management

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### *Abstract*

*The purpose and aims of this paper are to explore short-term financial sources, to show, based on lowest cost criteria, how to determine what sources of short-term financing to employ, taking into account the importance of scientifically-based short-term financial management. The company should bear in mind the cost of available sources, the impact of short-term sources on profitability and solvency and decide on the optimal composition of the company's short-term sources from a cost-effective point of view. On the basis of research results, a model of optimal short-term financing has been developed and with this model a company can select the optimal composition of short-term sources from a cost-financing aspect.*

*Key words: short-term sources, optimal composition of current liabilities, the cost of the sources, effective interest rate after tax*

*JEL Classification: C02, G32, G39*

### Introduction

Short-term financing may be used to meet seasonal and temporary fluctuations in a company's funds position as well as to meet permanent needs of the business. Short-term financing management requires decisions about the composition of short-term financing sources and it is convenient to characterize short-term financing sources by their availability, cost, degree of management discretion allowed and security required. Costs are the most important factor and financial managers have to minimize these. The Effective Interest Rate After Tax (EIRAT) is a true measure of the effective cost of sources of short-term financing and it is important to calculate EIRAT for each type of short-term source before deciding on which type to be used.

We hypothesize that by applying scientifically-based short-term financial management and an optimal choice of the company's short-term financing sources from a cost-effective point of view, companies can earn a satisfactory profit as well as a return on investment.

The purpose of this study is to determine how to make optimum use of available short-term financing sources from a cost-financing aspect. In striving to fill in the gaps relating to optimal composition of short-term sources from a cost-financing aspect, the study makes its own contribution to research and thereby to managers. With the aim of completing these gaps, the study will investigate various sources of short-term financing and introduce a new model of optimal short-term financing.

The study will also explore short-term financing of companies in the Republic of Croatia in 2009 along with a dependence between short-term debt and profitability.

The outcome of this study is a model of optimal short-term financing wherein a company can select the optimal composition of short-term financing sources from an economic point of view.

## Literature review

Once the firm's management has decided on its mix of current and long-term assets, it must decide how to finance its current assets. The financial manager can choose from three basic strategies as financing is sought to support the firm's asset needs over its operating cycle. The three strategies include the aggressive strategy, the conservative strategy, and the moderate strategy (Maness and Zietlow, 2005).

The aggressive strategy is a maturity matching strategy where it is important to match the maturity of the source of financing with the duration of the need for cash. The firm maximizes its reliance on short-term financing and minimizes its reliance on permanent or long-term financing and its solvency position will suffer.

The conservative financing strategy uses only long-term sources to fulfill all the firm's financing needs. Under normal financial market conditions, this strategy would be relatively expensive because long-term financing sources are generally more expensive than short-term sources. The reliance on long-term sources provides a greater solvency position (Maness and Zietlow, 2005).

The moderate financing strategy is a blend of the aggressive and conservative strategies. The firms use long-term financing sources to finance their fixed assets and permanent current assets, while short-term sources are used to finance temporary current assets. The solvency position of the firm will not suffer.

Sources of short-term financing can be spontaneous or negotiated financing sources. A spontaneous source of financing is one that occurs automatically as a result of operations (Maness and Zietlow, 2005). Common spontaneous sources are payables and accruals. Accounts payable is a spontaneous financing source since it comes from normal business operations. An accrual is an expense that has been incurred but has not yet been paid as accrued wages and accrued taxes.

Bank loans are an important source of short-term credit. Interest on bank loans may be quoted as simple interest, discount interest or installment interest. When a loan has a compensating balance requirements associated with it, the proceeds received by the borrower are decreased by the amount of the balance. Bank financing may take any of the following forms: lines of credit, unsecured loans and secured loans. Unsecured loan is recommended for use by companies with excellent credit ratings for financing projects that have quick cash flows. Secured loan is loan on a secured basis, with some form of collateral behind the loan. Collateral may take many forms including inventory, accounts receivable or securities.

Commercial paper is unsecured short-term debt issued by a large, financially strong company. Although the cost of commercial paper is lower than the cost of bank loans, commercial paper's maturity is limited to 270 days, and it can be used only by large companies with exceptionally strong credit ratings (Brigham and Gapenski, 1997). The interest rate is less than that of a bank loan and it can be issued only by companies possessing the highest credit ratings. The yields on commercial paper are generally less

than the effective cost of bank lines of credit, which explains why banks have lost a portion of its short-term lending to those companies that can access the commercial paper market (Maness and Zietlow, 2005).

The merits of the different sources of short-term financing should be considered carefully before a company borrows money. The factors bearing upon the selection of the source of short-term financing include: cost, effect on credit rating, risk, restrictions, flexibility, expected money market conditions, the inflation rate, corporate profitability and liquidity positions and the stability of company's operations (Shim and Siegel, 2007).

The cost of short-term financing sources is the most important factor. The effective interest rate is the real rate of interest on a loan, expressed as an annual percentage applicable for the life of the loan. Short-term financing arrangements have several features that cause the stated interest rate on the financing to be different from the effective interest rate. Sources of short-term financing have been explored and discussions about calculating the effective interest rate on some forms of short-term financing have been made but there are still gaps relating to EIRAT and optimal composition of short-term sources from an economic point of view in the existing literature.

## Research

### Methodology

This paper presents results from the empirical research undertaken on a representative sample of Croatian companies with the aim of exploring their short-term financing, financial strategies and, finally, various short-term financial sources from a cost perspective. The empirical research was based on a sample of randomly selected companies in the Republic of Croatia. The analysed sample comprises 66 large companies, 48 medium-sized and 159 small companies and were chosen from all companies that operated in the year 2009 (87,807 small companies, 1,396 medium-sized and 453 large companies).

We analyzed the structure of short-term financing sources used by Croatian companies in 2009 along with a dependence between short-term debt and profitability. Using methods from statistics, we investigated whether there was a relation between short-term debt and profitability expressed in terms of return on assets.

We also analyzed various short-term financing sources from a cost-effective point of view and EIRAT as a true measure of the effective cost of sources of short-term financing. The independent variables which determine EIRAT for various short-term financing sources have been selected and the relations between them have been defined. On the basis of research results we have introduced a model of optimal short-term financing from a cost-effective point of view which is a system of mathematical equations for calculating EIRAT for different short-term financing sources.

## Results of analysis

We analyzed the structure of short-term financing sources used by companies in the Republic of Croatia in 2009 along with a dependence between short-term debt and profitability and various short-term financing sources.

### Structure of short-term financing sources used by Croatian companies

Taking into consideration their size in the Republic of Croatia in 2009, the structure of current liabilities in companies has been analyzed and presented in the Table 1.

**Table 1. Structure of sources of short-term financing in Croatian companies in 2009 (in million of Euros)**

Companies	Small	%	Medium-sized	%	Large	%
Liabilities						
Bank loans or finance company loans	21.08	27.52	82.51	37.30	1,914.78	43.20
Accounts payable	33.82	44.14	94.19	42.58	1,118.94	25.25
Accruals	7.29	9.51	22.50	10.17	158.73	3.58
Short-term commercial paper	0.15	0.20	1.70	0.77	122.46	2.77
Other current liabilities	14.27	18.63	20.30	9.18	1,117.00	25.20
Total current liabilities	76.61	100.0	221.20	100.0	4,431.91	100.0

Source: Author's calculations

Small and medium-sized companies mainly use accounts payable for financing their current assets, while large companies mainly use bank loans or finance company loans. Small companies with liquidity problems may stretch their accounts payable. However, two disadvantages of this are the relinquishing of any cash discount offered and the probability of lowering the company's credit rating. Accounts payable may be less costly than a bank loan, but if stretching occurs continually, the company may suffer from a reduced credit rating in the future.

We note that with an increase in size of companies there is a corresponding increases in the share of bank loans or other financed company loans in their total liabilities while the share of accounts payable in total liabilities decreases. A small amount of capital and reserves have an adverse effect on small and medium-sized companies which lowers the collateral required by lenders and their borrowing capacity. Consequently, the approach of small and medium-sized companies to bank loans is limited by insufficient equity. Big companies that have large and frequently recurring short-term or seasonal needs for funds have flexibility and sufficient equity to arrange for large amounts of funds through regular banking channels and bank loans.

The amount of commercial papers issued by large companies in the Republic of Croatia in 2009 is a low percentage of current liabilities (2.77%). Large companies with the highest credit rating should use commercial papers more for financing their current assets and avail of their advantages. Croatian companies should choose commercial papers because the cost of bank financing exceeds the cost of commercial papers. Since the cost of commercial papers is less than through bank or finance company borrowing

and no security is required, and since the percentage of commercial papers to debt financing is low, additional commercial papers should be issued by large companies that have a very high credit rating and a prestigious reputation.

### Relation between short-term debt level and profitability

We investigated whether there was a relation between short-term debt level, which compared total short-term liabilities to total assets, and profitability and analyzed the dependence between short-term debt and profitability. We hypothesize that there may be a negative correlation among them coupled with the fact that an increase of short-term debt triggers a decrease of profitability expressed in terms of return on assets.

The level of short-term debt and return on assets in companies, taking into consideration their size in the Republic of Croatia in 2009, has been analyzed as seen in the Table 2.

Table 2. Descriptive statistics of short-term debt ratio and return on assets in Croatian companies in 2009

Companies	Small	Medium-sized	Large
Short-term debt			
Arithmetic mean	53.05	29.70	35.55
Standard deviation	28.86	21.04	24.26
Coefficient of variation	53.94	70.86	68.24
Return on assets			
Arithmetic mean	0.06	0.015	0.021
Standard deviation	0.17	0.076	0.081
Coefficient of variation	311.68	498.41	379.48
Correlaton coefficient	-0.71	-0.93	-0.51

Source: Author's calculations

The average value of short-term debt for small companies during the observed period is 53.05, while the average value of Return On Assets (ROA) is 0.06 .

The standard deviation of short-term debt for small companies (28.86) is higher compared to the standard deviation of ROA (0.17). The largest standard deviation has been noted with the level of short-term debt for small companies and shows how widely members of a related group diverge from the average. Coefficient of variation for ROA is 311.68 and shows that a relative dispersion is significant. Coefficient of variation for ROA is higher than for short-term debt and shows that the variability of ROA is higher than the variability of short-term debt for small companies. The correlation coefficient is -0.71 which confirms that the correlation between short-term debt and ROA is negative and moderately strong. The negative correlation between variables short-term debt and ROA may be an indication that a change in the level of short-term debt is not associated with a consistent and equivalent change in the value of the return on assets.

The average value of short-term debt for medium-sized companies during the observed period is 29.70, while the average value of Return On Assets (ROA) is 0.015. The standard deviation of short-term debt for medium-sized companies (21.04) is higher compared to

the standard deviation of ROA (0.08). Coefficient of variation for return on assets is 498.61 and shows that a relative dispersion is great. Coefficient of variation for short-term debt is lower than coefficient of variation for ROA and shows that consistency of short-term debt is higher than consistency of ROA for medium-sized companies. The correlation coefficient for medium-sized companies is -0.93 which confirms that the return on assets is correlated negatively and strongly with the variable short-term debt, thus suggesting that an increase in the level of short-term debt triggers a decrease in return on assets.

The average value of short-term debt for large companies during the observed period is 35.55, while the average value of Return On Assets (ROA) is 0.021. The standard deviation of short-term debt for large companies (24.26) is higher compared to the standard deviation of ROA (0.081). Coefficient of variation for ROA is 379.48 and shows that a relative dispersion is significant. Coefficient of variation for ROA is higher than for short-term debt and shows that the variability of ROA is higher than the variability of short-term debt for large companies. The correlation coefficient is -0.51 which confirms that the correlation between short-term debt and ROA is negative and moderately strong. The negative correlation between variables short-term debt and ROA means that as values of short-term debt increase, the values on the return on assets tend to decrease in a predictable manner.

We confirm that during the observed period the correlation between variables short-term debt and return on assets for Croatian companies is negative and an increase in the level of short-term debt triggers a decrease of profitability expressed in terms of return on assets.

## Effective cost of sources of short-term financing

The procedures used to convert different terms and conditions for various types of short-term financing sources into a comparable Effective Interest Rate After Tax (EIRAT) are analyzed, focusing on independent variables which impact on EIRAT. We have analyzed the following financing sources: simple interest bank loans, bank loans with discount interest, bank loans with compensating balances, bank loans with discount interest and compensating balances, secured bank loans, installment loans and commercial papers.

### Simple interest bank loan

The independent variables which have an impact on EIRAT are nominal interest rate and profit tax rate. The principal is labeled as not relevant variable for EIRAT and is excluded. EIRAT can be expressed in terms of these independent variables as follows:

$$\text{EIRAT} = \text{nominal interest rate } (i) \times (1 - t) \quad (1)$$

where

t - profit tax rate expressed as decimals

i - nominal interest rate expressed as percentage.

### Bank loan with discount interest

The independent variables which have an impact on EIRAT are nominal interest rate and profit tax rate. The relationship between these variables might be expressed as the following:

$$\text{EIRAT} = \frac{\text{nominal interest rate (i)}}{100 - \text{nominal interest rate (i)}} \times (100 - t) \quad (2)$$

where

t - profit tax rate expressed as percentage

i – nominal interest rate expressed as percentage.

### Bank loans with compensating balances

The independent variables which have an impact on EIRAT are nominal interest rate, compensating balances (%) and profit tax rate. EIRAT can be expressed in terms of these independent variables as follows:

$$\text{EIRAT} = \frac{\text{nominal interest rate (i)}}{100 - \text{compensating balances (\%)}} \times (100 - t) \quad (3)$$

where

t - profit tax rate expressed as percentage

i – nominal interest rate expressed as percentage.

The analyses can be extended to the case where compensating balances are required and the loan is on a discount basis. The independent variables which have an impact on EIRAT for a bank loan with discount interest and compensating balances are nominal interest rate, compensating balances (%) and profit tax rate. The relationship between these variables might be expressed as the following:

$$\text{EIRAT} = \frac{\text{nominal interest rate (i)}}{100 - \text{nominal interest rate (i)} - \text{compensating balances (\%)}} \times (100 - t) \quad (4)$$

where

t - profit tax rate expressed as percentage

i – nominal interest rate expressed as percentage.

On the basis of research results we can formulate the corresponding generalized model which includes all components for calculating the real cost of short-term loans with simple interest, discount interest and compensating balances.

$$\text{EIRAT} = \frac{\text{nominal interest rate (i)}}{100 - \text{nominal interest rate (i)} - \text{compensating balances (\%)}} \times (100 - t) \quad (5)$$

where

t - profit tax rate expressed as percentage

i – nominal interest rate expressed as percentage.

### Installment loan

The independent variables which have an impact on EIRAT are nominal interest rate and profit tax rate. The relationship between these independent variables in order to produce EIRAT can be defined mathematically as:

$$\text{EIRAT} = \frac{\text{nominal interest rate (i)} \times 2}{(1 + 1/12)} \times (1 - t) \quad (6)$$

where

t - profit tax rate expressed as decimals

i – nominal interest rate expressed as percentage.

### Secured bank loan on the basis of one collateral

The independent variables which have an impact on EIRAT are nominal interest rate and profit tax rate. The relationship between these variables might be expressed as the following:

$$\text{EIRAT} = \text{nominal interest rate (i)} \times (1 - t) \quad (7)$$

where

t - profit tax rate expressed as decimals

i – nominal interest rate expressed as percentage.

### Secured bank loan on the basis of two collaterals

The independent variables which have an impact on EIRAT are the principals of both loans, nominal interest rates of both loans and profit tax rate. The relationship between these independent variables in order to produce EIRAT can be defined mathematically as:

$$\text{EIRAT} = \frac{\text{principal (1)} \times \text{interest rate (i1)} + \text{principal (2)} \times \text{interest rate (i2)}}{\text{principal (1)} + \text{principal (2)}} \times (1 - t) \quad (8)$$

where

t - profit tax rate expressed as decimals

i1, i2 – nominal interest rates expressed as percentages.

### Commercial papers

The independent variables which have impact on EIRAT are nominal interest rate, cost of issuance, principal and profit tax rate.

EIRAT can be expressed in terms of these independent variables as follows:

$$\text{EIRAT} = \left( \text{nominal interest rate (i)} + \frac{100 \times \text{cost of issuance}}{\text{principal}} \right) \times (1 - t) \quad (9)$$

where

t - profit tax rate expressed as decimals

i – nominal interest rate expressed as percentage.



The existing structure of short-term financing sources in companies under review is not a result of considering the best composition of short-term financing sources from a cost-effective point of view and the decision in accordance with EIRAT as a real cost of financing.

Efficient short-term financial management assumes formulating a short-term financing strategy, choosing the appropriate financing instrument from among all short-term financing instruments available, computing the effective cost of short-term financing sources and determining the optimal composition of short-term financing sources from a cost-effective point of view.

To determine an optimal decision from among a number of short-term financing sources from the aspect of costs, managers should take into consideration the cost of all available sources expressed as a comparable EIRAT and the source that has the lowest EIRAT should be chosen. Companies can minimize the sum of costs associated with short-term financing and trigger an increase of profitability.

The results support the hypothesis that by applying scientifically-based short-term financial management and an optimal choice of the company's short-term financing sources from a cost-effective point of view, companies can earn a satisfactory profit as well as a return on investment.

### Model of optimal short-term financing

On the basis of research results we introduce a model of optimal short-term financing from a cost-effective point of view. The model of optimal short-term financing is a system of mathematical equations that describe the relationships among different independent variables in order to produce an Effective Interest Rate After Tax (EIRAT) as a measure of real cost of financing for various short-term financing sources. This model is a mathematical model designed to determine an optimal decision from among a number of short-term financing sources from the aspect of costs and involves the following equations for calculating EIRAT for different bank loans and commercial papers:

Bank loan with simple interest, discount interest and compensating balances

$$\text{EIRAT} = \frac{\text{nominal interest rate (i)}}{100 - \text{nominal interest rate (i)} - \text{compensating balances (\%)}} \times (100 - t) \quad (10)$$

Installment loan

$$\text{EIRAT} = \frac{\text{nominal interest rate (i)} \times 2}{(1 + 1/12)} \times (1 - t) \quad (11)$$

Secured bank loan on the basis of one collateral

$$\text{EIRAT} = \text{nominal interest rate (i)} \times (1 - t) \quad (12)$$

Secured bank loan on the basis of two collaterals

$$\text{EIRAT} = \frac{\text{principal (1)} \times \text{interest rate (i1)} + \text{principal (2)} \times \text{interest rate (i2)}}{\text{principal (1)} + \text{principal (2)}} \times (1 - t) \quad (13)$$

### Commercial papers

$$\text{EIRAT} = \left( \text{nominal interest rate (i)} + \frac{100 \times \text{cost of issuance}}{\text{principal}} \right) \times (1 - t) \quad (14)$$

In order to make an optimal choice of short-term financing sources it is necessary to compare the EIRAT of all available sources and a short-term financing source should be chosen for which the minimum value of EIRAT is attained. We must make sure that in our choice of optimal short-term financing source from a cost perspective this minimum is met:

EIRAT of an optimal short-term financing source = minimum

This model can be tested and used in practical calculations by using different and all available short-term financing sources. Numerical results obtained by using these equations should be considered and compared so that the financing source that results in minimal Effective Interest Rate After Tax (EIRAT) should be chosen.

Benefits that can be derived from the model of optimal short-term financing include the following:

- Consideration and comparison of all available sources regarding costs are easier by using the given model.
- The optimal selection of short-term financing sources from a cost perspective can be made.

### Conclusion

We analyzed the structure of short-term financing sources used by Croatian companies, along with a dependence between short-term debt and profitability of observed companies and we also analyzed various short-term financing sources from a cost-effective point of view.

An Effective Interest Rate After Tax (EIRAT) represents the real cost of financing and to determine what sources of short-term financing to employ it is important to take into consideration the cost of all available sources and choose the source in accordance with EIRAT. We have analyzed procedures for calculating EIRAT for different short-term financing sources in order to define independent variables which determine EIRAT and investigate if there is a possible correlation between them.

On the basis of research results we introduce a model of optimal short-term financing and this model can be used to determine the optimal composition of the company's short-term financing sources from a cost-effective point of view under known and certain

business conditions. Its objective is to minimize the sum of costs associated with short-term financing and to trigger an increase of profitability.

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## Shopper Satisfaction Monitor in a border area

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### Abstract

*For the city marketing departments it is very important to know what satisfies and dissatisfies shoppers. This knowledge is much more interesting for smaller cities on the country site, not very far away from bigger cities.*

*Therefore the aim of this research is to establish a shopper satisfaction monitor for smaller and bigger cities from 40.000 to 200.000 inhabitants in a border region. In springtime 2011 we have started with the research on the Dutch site, in autumn we have done the same research in Germany in three smaller cities with 40.000 inhabitants. In the next years we establish a satisfaction monitor for all cities in the region of Aachen/Heerlen and Venlo/Mönchengladbach with 40.000 to 65.000 inhabitants. Shoppers can choose between 15 smaller cities with a shopping area in two countries. The main questions in our research are:*

- *What satisfies dissatisfied shoppers for shopping in smaller cities?*
- *What are the strengths and weaknesses of the cities?*
- *How loyal are shoppers?*
- *Are shoppers in some cities more loyal than in other cities and why?*

*In the next year we propose to establish a shopper satisfaction Monitor for the western region of Nordrhein-Westfalen (Germany) and the region Limburg (The Netherlands). These monitors will cities encourage developing a new competitive strategy and city marketing departments help to realize a successful shopper strategy.*

*Keywords: C/D Paradigm, Customer Satisfaction Index, shopper satisfaction, Shopper cluster analysis*

### Introduction

Customer satisfaction has a big attention not only in the marketing literature, it has a big influence for retailers, for service companies and for cities itself.

“...customer satisfaction has been embraced by practitioners and academics alike as the highest goal of the company” (Peterson, Wilson, 1992, p. 61). According to Bruhn many customer satisfaction index exist, but it is rather difficult to compare one measurement with other measurement (Bruhn, 1998, p 271). This paper reports the result of a survey in three smaller cities in the border area of The Netherlands and Germany to measure the shopper satisfaction instead of customer satisfaction. The objective of the survey was to learn first:

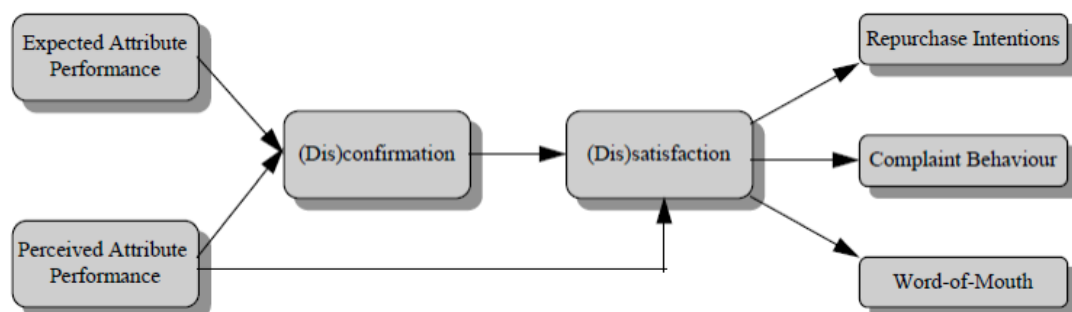
- to identify the intentions of shoppers coming in the inner city,
- to identify why shoppers are satisfied or dissatisfied with the city,
- to identify the satisfaction / dissatisfaction drivers
- to measure the customer satisfaction (CSI) of the respondents.

The survey shows what factors influence satisfaction and dissatisfaction of shoppers. The difference of shoppers and customers is that customers have already bought a product or a service. Shoppers are interested in shopping. The shoppers were asked via street interviews. In order to be able to identify changes and to identify an evolution over time it is necessary to require the survey to realize once a year.

## The model of Confirmation/Disconfirmation Paradigm

In the past decades in the literature a lot of books and researches were published about the construction of customer satisfaction. Anderson, Fornell (1995), Beerger, Mens van (1997), Kaapke, Hudget (1998) have done first researches about customer satisfaction. Satisfaction is defined by Bloemer and De Ruyter (1998, S. 501) as „The outcomes of the subjective evaluation that the chosen alternative (the store) meets or exceeds expectations“. An important component of satisfaction is the image of the retailer (store image) and the city itself. Bloemer and De Ruyter (1998, S. 501) define store image as: „The complex of a consumer’s perceptions of a store on different (salient attributes).“ The image of a retailer business and the image of a city have a significant influence on both: Satisfaction with the retailer and overall shopper satisfaction with the city. This aspect may, in particular in the German-Dutch border region plays a crucial role to the purchase decision. The Confirmation/Disconfirmation Model has consistently been evaluated in a lot of empirical research and is established by Oliver (Oliver, De Sarbia (1988)). A growing number of studies have shown a direct influence of expectations and perception of shoppers and a growing number of studies have shown a direct influence of performance and shopper satisfaction. According to De Ruyter et al. there is influence of performance of cities and retailers and shopper satisfaction (De Ruyter, Bloemer, Peters, (1997)). So (dis)confirmation is a cooperation between expected attribute and perceived attribute. If there is a gap between expectation and perceived performance there will be dissatisfaction and the shopper will no longer come to a city for shopping. Is the perceived performance bigger than the expected, the shopper will be satisfied and come back for shopping. In both situations, satisfaction or dissatisfaction, shoppers will change complaint behaviour, repurchase intentions, or the behaviour of the world of mouth.

**Figure 1: Expectancy Disconfirmation Model (Walczuch, Hofmaier, 2000, p.4)**



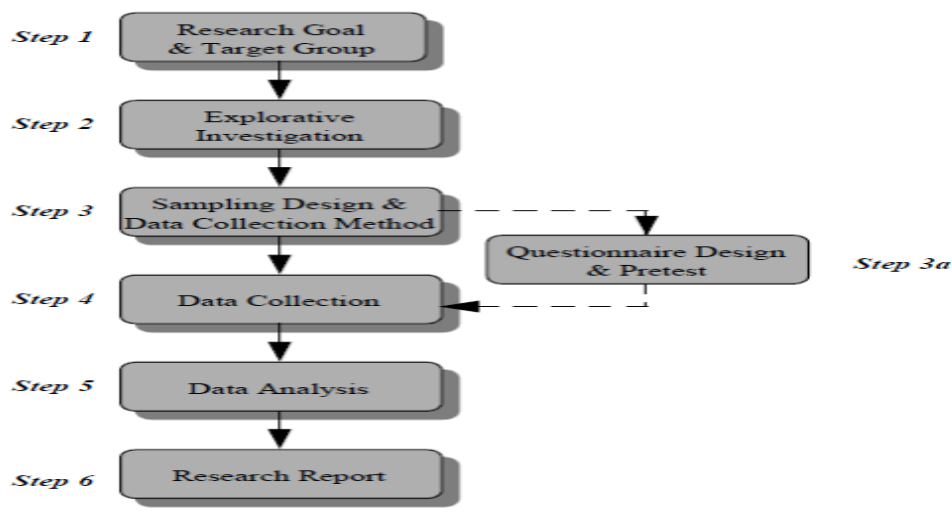
The scope of the paper has been restricted to shopper satisfaction with retailers in a city and the city itself. The causal relationship between shopper satisfaction and loyalty has been the topics of a large number of studies (see Anderson and Sullivan, 1993, Mittal, Ross and Baldasare 1998, Mittal, Kumar and Tsiros, 1999) have already shown. In particular, Bloemer (1993) and Bloemer and Kasper (1995) show how complex relationship is. Bloemer and Kasper define shopper loyalty as a component of

commitment. Commitment is a dimension of loyalty (Bloemer and Kasper, 1995, p 312) and distinguishes between true and spurious loyalty. As part of shopper satisfaction Bloemer and Kasper (1995, p 313) and Bloemer and De Ruyter (1998, S.499 ff) developed a typology and differentiate between latent and manifest satisfaction. Manifest satisfaction is present, when the shoppers do an explicit comparison between expectations and perceived performance. If this is not the case, there is latent shopper satisfaction. The different according to the mental effort is, that a shopper provides in the evaluation of a service and the consciousness level of happiness is the comparison between the latent and the manifest satisfaction (Bloemer and Kasper, 1995, pp. 311 ff; Bloemer and De Ruyter, 1998, pp. 499ff.). Thereby latent confidence is defined as "the result of non-implicit evaluation which is elaborated upon", however, manifest satisfaction as "the result of an evaluation which is well elaborated upon" (Bloemer and Kasper, 1995, p.315, Bloemer and Poiesz , 1989, p.43-48).

### Shopper Satisfaction Measurement in a border region

The measurement of shopper follows the steps described in marketing research. Figure 2 gives an overview of all steps of the research process.

**Figure 2: The research process (Homburg, Rudolph, 1995, p. 43-50)**



This paper will focus on steps 3a to step 5 - Data Analysis. A common problem with shopper satisfaction measurement is that there exist a large amount of different approaches. The customer satisfaction measurement can be classified in two major classifications. - The objective and the subjective method. This paper is focused on the objective measurement of shopper satisfaction. The theory behind with paper is the C/D paradigm as mentioned before and the measurement will go on the attribute-specific method. Attribute-specific methods are especially suitable for standardized, timely and cost-effective measurements of features, which are usually expected by the shopper. The shopper satisfaction can be measured directly and indirectly. According to Bruhn and Grigoroudis (Grigoroudis E., Siskos Y. 2009) if the measurement of shopper satisfaction is measured directly, the methods include the measurement of city performance, retailer performance and its importance. The method includes the measurement of the importance's and the satisfaction/(dis)confirmation of the shopper and directly measure satisfaction (Bruhn, 2008). As implies, the analysis of the city performance only analysis the influence of the performance of the city. The analyse takes not (dis)confirmation into

account and is therefore incomplete from a theoretical viewpoint. Making use of the Confirmation/Disconfirmation method, shoppers have to rate their satisfaction with different sets of pre-specified combinations of city, retailers and atmosphere attributes sets. Attribute combinations are constructed in a way that they differ at the individual attribute level between groups. Via statistical analysis like cross table analyses, factor analyses and cluster analyses the relative importance of the different attributes is assessed after the questioning has been conducted. This method of measurement allows separate assessment of (dis) confirmation and performance. The following hypothesis were written down:

- H1 The greater the satisfaction of shopper with the infrastructure of a city, the greater their satisfaction with the city as a shopping destination.
- H2 The greater the shopper satisfaction with retailers in a city is, the greater their satisfaction with the city as a whole instead of purchasing.
- H3 The greater the shopper satisfaction with the atmosphere of a city, the greater their satisfaction with the city as a whole instead of purchasing.
- H4 The greater the satisfaction of shoppers with a city is, the greater their loyalty.
- H5 The greater the commitment with a city, the greater the loyalty with the city
- H6 The greater the loyalty of a shopper to a city, how greater the shopper retention rate.

For this hypothesis a model was created according the confirmation/disconfirmation paradigm from Walczuch, Hofmaier.

## Shopper survey procedure and sample

An empirical study was conducted in three smaller German cities with oral interviews based on standardised questionnaires and 542 respondents. A pre-test with 60 respondents was done for the weighting factor measurement of the shopper satisfaction index for city infrastructure, city retailer and the atmosphere of the city itself. To be sure the sample is representative, quota sampling was undertaken, taking into consideration the age and gender distribution of shoppers. The market analysis includes local survey research to fully understand the uniqueness of the particular market and its shoppers. The shopper surveys provide information on when, where, why, how and for what shoppers go shopping. Each respondent was asked about his importance's and satisfaction of the infrastructure of the cities, the retailers and the atmosphere of the city itself. It was also ensured that each respondent was shopping in these cities, so that the respondent is able to evaluate the locale-shopping situation.

## Operationalization and measurement

In order to collect information as part of the survey random, passers-by were interviewed in the three town centres. However, it was taken to ensure that female and male pedestrians equal weight in the survey were received. All age groups were considered. Not all passers-by had German citizenship. Overall, the survey found in the three cities following compilation.

**Tab. 1: Nationality**

		Erkelenz in %	Heinsberg in %	Hückelhoven in %
valid	German	82,8	96,0	83,9
	Others	17,2	4,0	16,1
	total	100,0	100,0	100,0

It was ensured that the distribution of subjects reflects the demographic distribution of the population.

**Tab. 2 gender**

	Erkelenz in %	Heinsberg in %	Hückelhoven in %
v a l i d Female	51,6	54,1	52,8
Male	48,4	45,9	47,4
Total	100,0	100,0	100,0

For the research it was necessary to interview single-person and multi-person households. Here was taken a representative sample too,

**Tab. 3 Breakdown by households**

		Erkelenz in %	Heinsberg in %	Hückelhoven in %
valid	Single Person Household	26,6	23,7	24,4
	More -Person Household	73,4	76,3	75,6
	Total			

Respondents comply with the distribution of population in the survey area. The sample applies to the distribution of one- and multi-person households as well. The biggest group of respondents was 25-64 years old. The proportion of over 64 years was rather low. The age of respondents is summarized in the following table:



**Tab. 4: Breakdown by Age**

		Erkelenz in %	Heinsberg in %	Hückelhoven in %
valid	16-24	27,3	27,5	23,9
	25-40	24,2	34,5	35,6
	41-64	39,1	30,9	26,7
	65-74	7,8	5,3	7,8
	75 and older	1,6	1,9	6,1
	Total	100	100,0	100,0

The researchers also pay attention to a balanced survey by gender so that the representativeness of the study is ensured. The largest share of respondents came by car in the city. The number of shoppers going by car to the city, dependent from the number of parking areas in the downtown area. However, a relatively high proportion comes walking in the inner cities. By the railway siding in Erkelenz some shoppers come by train to the city center. However, this number of shoppers is very low.

### Empirical results

After the descriptive statistic a factor analysis was done. The KMO- and Bartlett- Test gives the following results of the research for all shoppers in the research region.

**Tab. 5: KMO- and Bartlett-Test<sup>a</sup>**

Measure of sample suitability for Kaiser-Meyer-Olkin.	,626
Bartlett's test of sphericity	Approximate Chi-Square
	319,876
	df
	78
	Significance according
	to Bartlett
	,000

a. In the phase of analysis, only cases are used, which is nationality = German.

The most important factors coming for shopping for shoppers are:

- Shopper can combine holiday feeling with shopping (The city itself).
- The retailer (quality).
- The atmosphere and the cleanness of the city.

The three factors explain 65,991% of all factors for shopping decision. If there is a gap between shopper expectation and what they get this will influence shopper satisfaction or dissatisfaction.

Tab. 6: Rotate Component Matrix<sup>a,b</sup>

	Components		
	The city itself	Retailer	Atmosphere of city
Take care for children	,773		
Combination shopping and leisure	,744		
Safety	,733		
Compactness of the city	,710		
Expert advice retailer		,896	
Quality of products		,852	
Value of money		,758	
Service of the retailer		,718	
Architecture of the city			,886
City is clean			,736

Extraktionsmethode: principal component analysis.

Rotation Method: Varimax with Kaiser normalization

a. Rotation converged in 5 iterations.

b. In the phase of analysis, only cases are used, which is nationality = German.

Next step was to measure the shopper satisfaction in all cities. The measurement of the customer satisfaction index was done according to Töpfer ( Töpfer, A. 1998, Bruhn M., 2003 and 2008). A pre-test was done for the weighting factor of the main factors “The city itself”, “Quality of retailer”, “atmosphere of the city”. The CSI was measured weighted and unweight. The weighting factor is important; it belongs to the importance of the shopper commitment. But the weighting factor has no influence of the ranking itself (Allen, D. R., 2004, p. 204). The result is shown in the table below:

Tab. 7: Customer Satisfaction Index (CSI)

	Factor-weighting	Erkelenz					Heinsberg					Hückelhoven				
		Indicator Rating	Weighting indicator	Total weight	Weighted scores (up to 100%)	Number	Indicator Rating	Weighting indicator	Total weight	Weighted scores (up to 100%)	Number	Weighting indicator	Weighting indicator	Total weight	Weighted scores (up to 100%)	Number
Satisfaction city	30	5,6	100,0	30,0	17,1	128	6,1	100,0	30,0	18,6	207	5,8	100,0	30,0	17,6	180
Satisfaction retailer	40	6,9	100,0	40,0	27,4	128	6,8	100,0	40,0	27,4	207	6,8	100,0	40,0	27,2	180
Atmosphere	30	6,3	100,0	30,0	18,89	128	6,3	100,0	30,0	18,95	207	5,8	100,0	30,0	17,50	180
Total satisfaction reached points				weighted					weighted					weighted		
		134,7		63,45	128	139,5			64,98	207	132,0			62,22	180	
Customer Satisfaction Index, unweighted (% from max. 220)	un-weighted	61,23					Un-weighted	63,43				Un-weighted	60,00			

Last but not least a cluster analysis was done. The results were shown in the next table. The results are important for retailers, because retailers can show differences from one shopper cluster to another. City marketing departments Last but not least a cluster analysis was done. The results were shown in the next table. The results are important for retailers, because retailers can show differences from one shopper cluster to another. City marketing departments can analyze what kind of activities are interesting for what kind of cluster. According the factors of the factor analysis three general clusters were carried out. The first is the cluster with expectations to the city. The second cluster with expectations to service in generell and the third with expectations to the retailer. For all cluster the satisfaction with product and service (advice including) are most important.

**Tab. 8: The general shopper cluster in the region**

case	Cluster
Architecture of the city	1
City is clean	1
Special service bicycle's	2
Cafes and restaurants	1
Shopping in safety environment	1
Events	1
Take care for children	2
Compactness of the city	3
Combination shopping and leisure	1
Safety	1
Quality of products	3
Expert advice retailer	3
Friendly and good service from retailer	3

Next step is clustering the shoppers in groups of age and to describe the cluster of shoppers. So target groups can visualized and concrete actions for concrete groups of shoppers can be done. In the research six different target groups were identified.

In Tab. 10 the differences from one cluster to another cluster and a short description of the cluster is shown.

**Tab. 9: Shopper cluster in the research region**

age	Drivers for satisfaction ranking	Discription of the Clusters
16-24	1. Atmosphere of the city, 2. Good shopping, 3. Events in the city	The fun smart shopper
25-40	1. Atmosphere of the city, 2. Expert advice from retail employees, 3. Events	The smart shopper
41-64	1. Atmosphere and kindnes of the city, 2. Good and clever shopping 3. Resting places in the city	The clever shopper
65-74	1. Secure shopping with good advice 2. Good and cheap shopping 3. Events in the city, 4. Atmosphere of the city	The good, inexpensive and safe shopper
75 and older	1. Secure shopping and entertaining 2. Atmosphere of the city 3. Good value for money 4. Clarity orientation of the city	The free-time shopper with a high level of ambition

## Discussion and conclusion

One central research issue was to identify the factors for shopper satisfaction in the research-region and to measure the shopper satisfaction in smaller cities. The discussion in the report was, what was most important for shoppers and what makes them satisfied. The research shows that it is possible and necessary to measure the satisfaction in smaller cities. The CSI helps city marketing departments to compare competitors in the main factors of shopper satisfaction. From the shopper perspective different perceptions satisfaction factors were aggregated by factor analysis. Again there are three general factors for shopper satisfaction. The first one is the satisfaction with the retailers, the second one is the satisfaction with the infrastructure and the third one is the atmosphere in the city itself. Shoppers combine shopping, leisure and holiday time. In smaller city's it is important for shoppers meeting friends by shopping. The social factor is the main point that people go shopping in smaller cities. So the attractiveness of a city is a combination between the attractiveness of the product offer, the service quality of the retailer, the attractiveness of the environment and the atmosphere in the city itself. There is a big competition for smaller cities on the countryside. Smaller cities are in competition with the bigger cities in the region, but smaller cities are in competition with the smaller neighbor cities in the region. On the one hand shopper like shopping in the own city, because of the social factor and to meet friends is much more easier. To go shopping in the home city cost not much time for daily shopping. On the other hand, if the home city is not very attractive (price, quality of the products, atmosphere), shopper go for daily shopping to the next more attractive city and do not come back for a long time. Smaller cities on the countryside have a big competition to bigger cities in the region, therefore for retailer in smaller cities it is important to focus on the target group which is living in the city.

Especially for non-daily shopping there is big competition to bigger cities in the region for shoppers. Besides the differences of attractiveness to bigger cities, it seems, that smaller cities have to develop competitive strategies to bigger and smaller cities in the region. The strategies has to be develop with the same factors which shopper use to compare the cities, the retailers and the atmosphere of a city. A customer satisfaction index in a border region helps city-marketing-departments and retailers to focus on successful competitive strategy against smaller neighbor cities and bigger cities in the region.

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## Educational offer and its positioning: A comparison of the perception of customers and managers

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### *Abstract*

*While customer preferences and their impact on positioning strategy have received substantial interest within marketing, the compatibility of customers and the company perception of non-business offers have received significantly less attention. This study examines non-public education in the context of the abovementioned problem. This is because the decreasing number of potential students of non-public educational institutions forces their managers to pay special attention to the problem of differentiation from competitors. What do parents as customers of non-public educational institutions strive for? Are the managers aware of these needs and expectations and, if so, how do they use this knowledge? Are the perspectives of customers and managers of non-public schools analogous? To answer these research questions, the authors have conducted both qualitative and quantitative research among parents and qualitative research among managers of selected schools. The authors also have analysed websites of selected institutions, particularly in terms of positioning communication. The research result is a mutual confrontation of the two perceptions. Conclusions are used to sketch directions of the positioning strategy for non-public institutions in the educational market in Poland.*

*Keywords: services, positioning, educational market, perception*

### Introduction and objectives

The future of non-public schools, offering services within the compulsory part of the educational system in Poland, depends on their ability to distinguish themselves in the market of educational services. This market is characterised by greater intensity of competition because since 1995 the number of students at all levels of education has been gradually shrinking due to the demographic decrease of the school-age population. In the years 2000–2009, the number of primary school pupils (children aged 7–12) decreased by 29.3%, while the number of children subject to lower secondary education (aged 13–15) shrank by 28.8%. The decreasing student population is not irrelevant to the closure of more and more primary schools. Their number declines systematically; in the school year 2009/2010, it dropped by 2,800 (i.e., 16.7 %) as compared to 2000/2001. It is an interesting occurrence, however, that despite the shrinking population of children aged 13–15 in the school year 2009/2010, the number of lower secondary schools grew by 949 (i.e., 15.1 %) as compared to 2000/2001 (CSU 2010).

Under such circumstances, the pupil enrolment becomes a challenge – particularly for non-public institutions (Krzyzanowska, Tkaczyk 2012). In order to achieve goals in this field, the development and consistent implementation of the positioning concept for schools and their offer becomes essential. The efficient positioning strategy is determined by the recognition of buyers' needs and the competent use of this knowledge for

differentiation of the offer. Against this background, the question arises whether non-public schools in Poland are prepared for action in accordance with specified recommendations.

The aim of this paper is to answer the following questions: What do parents as customers of non-public educational institutions strive for? Are the managers aware of these needs and expectations and, if so, how do they use this knowledge? Are the perspectives of customers and managers of non-public schools analogous? To answer these research questions, the authors have conducted both qualitative and quantitative research among parents and qualitative research among managers of selected schools. The authors also have analysed websites of selected institutions, particularly in terms of positioning communication. The research result is mutual confrontation of the two perceptions. Conclusions are used to sketch directions of the positioning strategy for non-public institutions in the educational market in Poland.

The paper consists of four parts. In the first one, the complexity of the service offer development is described. The authors refer to the service-dominant logic that shows inseparable connections between tangible and intangible elements of offers. In order to build a foundation for identifying the level of compatibility of offers available on the market with advantages sought by purchasers of educational services, the service multilayer concept is evoked. The authors identify its characteristics and present the meaning of the offer positioning concept in the context of competitive advantages. The second part of the paper focuses on the research methodology. The third part contains: results of the qualitative study referring to expectations of parents as buyers of educational services, results of the quantitative research regarding expectations toward schools and their assessment, results of the qualitative study conducted among school managers together with website analysis, and conclusions on the level of preparedness and actual implementation of positioning strategy by surveyed schools. In the fourth part of the paper, the study's limitations are described and suggestions for possible further research are formulated.

## Educational offer as a service

The service activity of non-public schools is understood by the authors as a service – in the contemporary, wide meaning of this term. Services in the classic approach often were perceived as a kind of an offer being separate from tangible goods and initial attempts of defining this term notably contrasted service features with tangible goods characteristics (e.g. Smith 1969, Say 1964). The echoes of such perception of services also can be found in early marketing definitions, where the contrast with tangible goods was emphasised. For example J.M. Rathmell in his often quoted article 'What is meant by service?' (1966), paid attention that in case of services: price was determined differently from products; relationships with buyers were established on the basis of trust in a service provider rather than the immediate quality verification (as it was in case of a product); marketing activities were diversified depending on the branch; services, unlike tangible goods, could not be stored and were more difficult in terms of standardisation and assessment. The market reality showed, however, that contrasting services with tangible goods was not justified, because it became a common practice to combine them both in one offer, with the main difference lying only in the proportion of both elements. Services thus can be either the key element of an offer (service product) accompanied by tangible goods, or the supplement of benefits (customer service) offered to buyers of tangible goods (Lovelock, Wirtz 2007, Heapy 2011). In contemporary marketing, the



distinction has been made between two perspectives of service understanding: wide and narrow. In the wide approach, the meaning of service grows because it is defined as the use of specialised competencies (emerging from knowledge and skills) for the achievement of mutual benefits by entities participating in joint activities. Tangible goods and services are not treated as alternative types of products, but as mutually connected elements. Services have a superior meaning – they are always part of an offer for buyers, while tangible goods can constitute a go-between in transferring benefits offered to consumers ((Vargo, Lusch 2008). The existence of the interaction between an enterprise and purchasers – meaning that both parties offer each other a certain value (Vargo, Lusch 2004)–results in the conclusion that the value for buyers is not independently created by the enterprise, as it is assumed in the traditional approaches, but it arises as the effect of cooperation with buyers (co-creation of value); the enterprise offer the value proposition, but only buyers define (or even verify) this value in the process of use (value-in-use) (Ballantyne, Varey 2008).The explanation of the above role of service in creation of value for buyers can be found in the concept of two kinds of resources that enterprises can apply in the process of achieving their goals. In this concept, the following resources are classified (Vargo, Lusch 2004, Constantin, Lusch 2010): (1) tangible resources, in case of which enterprises take actions resulting in an effect desired by purchasers (operand resources), (2) intangible resources – knowledge and skills that are used for activating tangible resources (operant resources). Both mentioned resources are hierarchically interdependent, as intangible resources are of superior nature to tangible ones – they determine the way of using the latter. The service, as related mainly to intangible resources, constitutes the indispensable element of the value creation process, while the strategy, which is rightly noticed by Normann and Ramirez, ‘is the art of creating value. (...)is (...) definition of the way of combining two recently most important resources: knowledge and relationships, or putting it in other words, enterprise’s competencies with [needs of – M.K.] buyers.’(Normann, Ramirez 1993).

In the narrow approach, services are perceived as the activity undertaken by one party for the benefit of another, usually connected with the performance of a certain action in a certain time and bringing changes noticeable by service recipients themselves or with reference to objects or assets belonging to them. The nature of exchange including services consists in the following mechanism: in return for money, contributed time and effort service recipients buyers obtain from service provider (enterprise) benefits resulting from enabling an access to certain goods and equipment, effects of completed work, professional skills, participation in network, but in general they don’t become owners of any element of an offer (Lovelock, Wirtz 2007). The above definition can be supplemented by saying that services may be provided not only by enterprises but also by other organisations – for example non-public schools being subject of this analysis – and they may be used for satisfying both individual and collective needs.

Service recipients gain today a stronger position in relationships with providers, thanks to the access to greater information resources and opportunities for contact with other buyers. They use the above for active search of information on offers and influencing them, among others thanks to social networking sites (Rust, Huang 2011).

The educational service belongs to services directed at people’s minds (mental stimulus processing) according to categories defined by Lovelock and Wirtz(Lovelock, Wirtz 2007). Services of this kind are usually connected with the high level of buyers’ involvement, because they meet buyers’ essential needs. This involvement consists in cautious decision-making, where two following stages are the most important: recognition of

opportunities for satisfying needs and assessment of these opportunities by purchasers (Lovelock, Wirtz 2007). The above consumer behaviour makes the service provider consider both complexity of buyers' needs and their hierarchy. Thus the value proposition designed by a school must address and integrate three components, as defined by (Lovelock, Wirtz 2007): (1) core product, which is the central element that supplies the principal, problem-solving benefits customer seeks; (2) supplementary services that augment the core product by facilitating its use and enhancing its value and appeal; and (3) delivery processes which are used so the customer can get both the core product and the supplementary services. The extent and level of supplementary services often play a role in differentiating and positioning the core product against competing services. Consumers usually make their buying decisions on the basis of the evaluation of alternative service offerings and the perceived differences between them. However, the attributes that distinguish competing services from one another are not always the most important ones especially if many service organisations are able to supply them. Therefore, as argue Lovelock and Wirtz (2007), it is important to identify determinant attributes, i.e., those that actually determine buyers' choices among competing alternatives.

Having the above attributes identified, an organisation gains foundation for developing the positioning concept. It plays a pivotal role in marketing strategy of an organisation (Garbarski 2011, Kotler 2005), because it links customer analysis and competitive analysis, i.e. the choice of the target market and the type of competitive edge the company strives for. The strategic importance of positioning also is meant to determine paths for raising resources required for the achievement of the chosen strategy (Attia, Hooley 2007, Ries, Trout 1981)

The full meaning of positioning is demonstrated in the context of competitive edge, understood as: 'whatever value a business provides that motivates its customers (or end users) to purchase its products or services rather than those of its competitors and that poses impediments to imitation by actual or potential direct competitors' (Christensen 2010). Positioning is the transitional stage on the path leading to the achievement of a competitive edge. The practical opportunities for competitive advantage depend on whether managers (1) periodically engage in systematic information gathering regarding customer-perceived competitive advantage and (2) monitor competitors' conduct and their abilities to imitate successful positioning.

## Research approach and methodology

In order to accomplish the assumed goals, the authors applied both qualitative and quantitative research. The clash of buyers' and managerial staff's perception was possible thanks to the use of various research methods. Diversity of methods is one of the possible types of triangulation, the so-called methodological triangulation, which – apart from theoretical triangulation, researcher triangulation, data triangulation and interdisciplinary triangulation – is used in marketing research (Janesick, 1994, p 214-215) in order to minimise errors made by researchers in the process of data collection and analysis.

The perception of buyers of educational services provided by non-public institutions was explored with the use of two focus group interviews with the parents of children of two selected schools located in Warsaw and associated in the Civic Educational Association (STO). These schools were chosen from institutions whose managers declared willingness

to partake in the survey. The FGI participants included 15 female and 5 male respondents. Additionally, on the basis of the collected information a questionnaire was prepared for CAWI research, conducted through [webankieta.pl](http://webankieta.pl). The questionnaire was emailed to all pupils' parents in two selected schools (320 families). 156 answers were received, out of which 149 qualified for further analysis (including 108 from female and 41 from male respondents). The objective of qualitative and quantitative research conducted among the pupils' parents was to set criteria for choice of non-public educational institution, as well as its strengths and weaknesses.

The perception of educational service providers was explored with the use of in-depth interviews with 12 managers and deputy managers of schools associated in STO all over the country. During the research the second order narration was used. A school or school group (primary school and lower secondary school) being the STO member was chosen as the subject of the research, with a school manager or deputy manager as the collection unit. The request for participation in the research was sent to the entire general population of 75 institutions meeting the research criteria, i.e., excluding kindergartens, music schools and adult schools. The number of received answers was 35, out of which 12 qualified for the next stage of research due to their compliance with the assumed conditions of the research method. Among respondents there were representatives of both small establishments (60 pupils) and big institutions (over 200 pupils), from large urban complexes and small towns located all over the country (Białystok, Bielawa, Gdańsk, Jelenia Góra, Częstochowa, Ostrołęka, Warszawa, Tychy, ZielonaGóra). Respondents also were diverse in terms of their managerial experience (from 2 months to 21 years in the school manager's chair).

In order to verify declarations made by the school managers the website analysis was conducted covering web pages of institutions represented by the interviewed managers. First of all the authors examined the presence and the formulation of the school's mission, as well as possible distinguishing features and positioning criteria to be found on the main page.

## Findings and conclusions

In the qualitative research carried out among the parents of children from the selected institutions, the questions regarded mainly sources of information used for choosing a school, criteria of choice applying to both primary and lower secondary school, as well as identification of advantages of the chosen schools as compared to others. In addition, the parents were asked to indicate weaknesses of the chosen institutions.

As for the sources of information used for choosing a school for a child, nearly all the respondents were unanimous in saying that their decision was determined by the school's good reputation in the local environment. Opinions about schools were collected from friends and acquaintances through word-of-mouth and internet forums.

'my neighbour had a son in this school and was very contented'

'many people living in the neighbourhood expressed favourable opinions about the school on the local forum'

Other important sources of information included official websites of the Ministry of National Education and rankings published in the press.

'I checked all the rankings and this school was the best in my neighbourhood'

Nearly all the respondents checked schools' websites and had meetings with their managers before their children were enrolled.

'I hesitated to choose a non-public school, but I was definitely convinced after the meeting with the manager'

Among main criteria of choice the following were mentioned by the respondents:

- Child's safety at school
- Atmosphere – child's comfort and self-feeling at school
- Number of pupils in classes
- Level of teaching.

'what is the most important for me is the atmosphere, the freedom of expression, encouraging discussion among students'

'the key issue is the number of students in the class, in the local public school classes include 30 children, here only 15'

'safety is quite important, I feel more confident knowing that my child is here under good care'

Strengths of the chosen institutions were highly correlated with the criteria used for the school's choice. The respondents mentioned the following features:

- Cosiness/privacy
- Good atmosphere
- Individual approach to pupils
- Safety
- High level of teaching.

Among weaknesses the interviewed parents indicated as follows:

Organisation of extracurricular activities

- Adjustment of teaching programs to pupils' abilities
- Classrooms' equipment
- Availability of sport and recreation activities
- Technical condition of classrooms and infrastructure

The parents' opinions about chosen institutions differed depending on their attitude and criteria of school's choice declared by the respondents. Upon the analysis of the parents' statements the typology of respondents was made, classifying three main types:

- Claim-oriented parents
- Protective parents
- Busy parents

The attitude of claim-oriented parents is characterised in the best way by the remark made by one of the respondents: "I pay and I demand". These parents are strongly focused on the offer and the level of teaching. Before they choose a school for their children, they check rankings and exam results. They like to exercise control over the teaching process and they are very annoyed by the technical condition of school premises and insufficient equipment of classrooms.

Protective parents' choice regarding school for their children is determined by such features as cosiness, nice atmosphere, safety. Good relationships between children and

their colleagues and teachers are more important than the classrooms' equipment. Before making a decision they discuss it with friends and search for information on internet forums. They are perturbed by the learning overload and the atmosphere of rat race promoted by claim-oriented parents.

Busy parents have no time to spend it with their children. They are happy to pay for the school, if they are not bothered. When choosing a school they pay attention at after-classes care, safety, school's working hours, extracurricular activities.

'it's important for me to have all extracurricular activities on the spot. I don't have time to drive my child to other locations'

Among weaknesses, they often mention too short duration of after-classes care and availability of extracurricular offer, including sport activities.

The quantitative research was focused on examining importance of particular criteria of school's choice and confronting it with the assessment of two selected institutions. In both cases, 5-level scale of evaluation was applied. No significant distinctions were observed between parents representing two schools. Differences in the respondents' opinions were connected with the level of education – depending whether children were in primary school or in lower secondary school. For example for parents having children in primary school contacts with teachers were more important than safety, emphasised by parents of pupils in lower secondary school.

More than 88% of respondents declared their satisfaction with the chosen school. Nearly 12% were dissatisfied with the decision they had made.

The relevance of particular criteria adopted by parents in the school choice decision-making as compared to their assessment is presented in Chart 1.

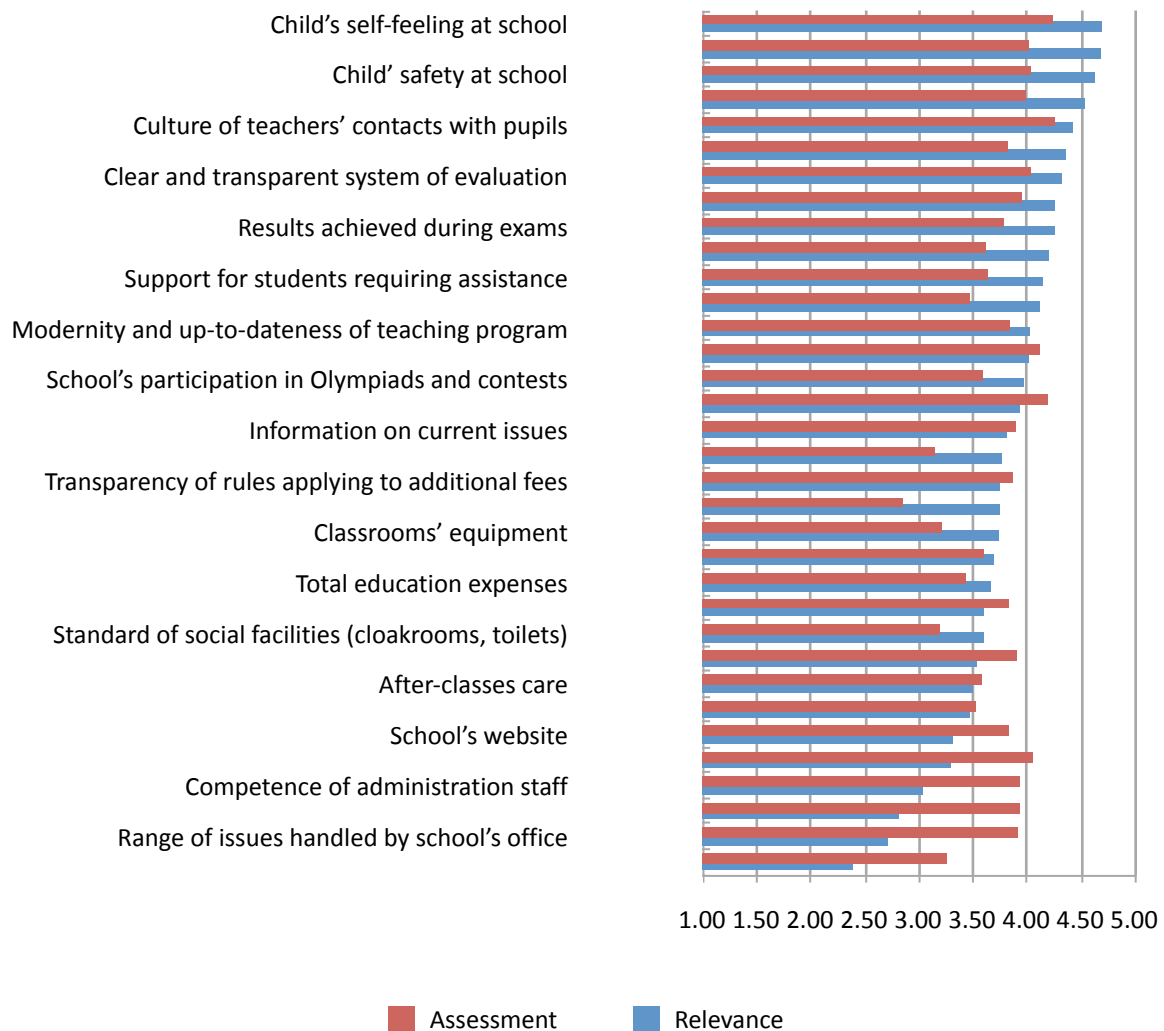
The most important criteria taken by parents into account when choosing a school for their children include:

- Child's self-feeling at school
- Teachers' ability to convey knowledge
- Child's safety
- Teachers' engagement in teaching process

The least important criteria include the range of operations and availability of the school's office and the presence of a small shop at school.

Such features as contacts with teachers, in case of both parents and pupils, self-feeling at school and number of students in classes were the most highly appreciated by parents and therefore able to serve as competitive advantages. All the above elements create the school's good atmosphere that is expected by parents.

Chart 1. Relevance and assessment of factors determining school choice by parents



Source: own

Analysing the parents' preferences toward schools and their assessment it can be stated that in the majority of cases the choice made by respondents corresponds with declared expectations. On the basis of the study results the structure of parents' population was estimated according to the previously defined types. In the quantitative research claim-oriented parents made up about 10%, protective parents represented 30%, while busy parents constituted 60% of all respondents.

Upon the analysis of qualitative and quantitative study results, the image of three components of service, preferred by parents, was developed. It is presented in Figure 1. Figure 1. Service components according to preferences declared by parents of pupils attending non-public STO schools

### delivery processes

- Number of pupils in classes
- School's working hours
- Location and condition of premises

### supplementary services

- Foreign languages
- Special interest groups
- Sport activities

### core product

- Atmosphere
- Safety
- Knowledge and skills

Source: own

The managers of STO institutions declared they were well familiar with the process of choosing the school by parents and pupils. The part of respondents supported their opinion about this issue by quoting the results of questionnaire surveys, conducted among pupils' parents.

The following features were indicated as the most important criteria of choice: educational offer, variety of extracurricular activities, high level of teaching (pupils' performance and examination results), as well as safety. Individual opinions emphasised the importance of prestige, a specific trend towards choosing a non-public school, mainly in case of smaller towns.

According to the school managers acquaintances' opinions are the main source of information both for parents choosing the school for their children, and for pupils themselves. Web pages, and sometimes profiles in social media serve as the additional sources of information.

A significant number of managers perceive the school's distinguishing features being identical with the major criteria used by parents and pupils when choosing a non-public school. In the forefront there are as follows: teaching level, results achieved by students during exams, safety provided by the school (among others through its privacy/cosiness), as well as the wide offer of extracurricular activities to be chosen according to individual preferences. Few institutions use outward communication to inform about their distinguishers – if so, such information appears on the school webpage, and sometimes in local media.

The interviewed managers were asked to identify profiles of parents having children attending to their schools. In their answers, respondents often pointed to two or three dominant types of parents:

'There are three groups of parents. The first one is that being focused on effects and safety of their children, while the second one is focused on all criteria and the third one is interested only in keeping children outside home as long as possible, because parents work hard'.

'One group of parents includes people whose occupation allows paying for school without detriment to the standard of living. People who don't have time for bringing up their children and believe that paying for school is enough to provide them with raising, care and education. They are usually not very involved in the school's issues and hardly cooperative. The other (dominant) group includes parents being aware that a non-public school creates better conditions for their children's progress, individual approach, development of personality. These parents are willing to cooperate with school in various areas, and first of all they bring up their children with a dialogue with educational institution'.

The described types of parents were consistent with results of the previously conducted research. In case of indicating two types of parents, claim-oriented and busy parents were joined in one group, while protective parents constituted the other. Both claim-oriented and busy parents are perceived by school managers as very difficult and demanding. Furthermore:

'They expect prompt effects in a short time and focus on didactic side of the process. They are interested in educational law. They are more aware, but they also react badly to problem announcements'.

The surveyed managers indicated at the constantly growing number of claim-oriented and busy parents – particularly the managers of schools located in smaller towns. The managers of 10 institutions mentioned their school's mission, while in two others the work on it was currently in progress, respondents reported. What can be stated as the common denominator of these missions is that a great emphasis is placed on the formation of values among pupils.

In order to verify the managers' declarations regarding the school's mission the survey of websites was conducted, including schools represented by the interviewed managers. The presence of all declared missions was confirmed. Their wording together with the comment is presented in Table 1.



**Table 1. Missions of analysed STO schools**

Mission	Comment
School–good raising, reliable teaching, physical training, social attitude and spiritual serenity.	Indication of aspirations and intentions, concise and easy to remember mission, still not distinctive enough, it resembles rather advertising slogan than primary objective.
Our mission: Raising of a human being behaving in accordance with good manners, able to live with dignity, to cooperate with others and to coexist with environment; - raising for democracy, conscious influence on pupils in order to prepare them for living and working in the democratic society, development of their individual personality features and creative abilities in order to shape better social relationships; - educating pupils on high level of knowledge and skills; - promoting healthy lifestyle; - teaching self-improvement; -arousing interests, development of talents.	Too long and complicated mission, focusing on too many features, without motivational character.
Raising and teaching in our school is based on Christian system of values, it serves developing self-responsibility and responsibility for others, it teaches respect for every human being.	Clearly and plainly defined mission, precisely defined superior values.
We are safe and friendly school. We respect and support one another. Our objective is an individual and comprehensive development, as well as providing pupils with knowledge and skills enabling their further education. We develop active and responsible attitudes of participating in social life.	Hardly distinctive mission – it can be adopted by every school.
We exist in order to lead the entire school's community - by offering educational service on the highest level – to the following values: Love, Freedom and Wisdom supporting the development of civil society.	Clearly and correctly defined mission, indicating possible competitive advantage and activity priorities.
In our school we have teachers with vocation to work with pupils. They like to teach, they learn themselves with and from children, they have a liking for pupils and respect them.	Clearly and plainly defined mission, precisely defined superior values.

In our school, in the atmosphere of friendliness and openness, we provide pupils with comprehensive education, we help them to discover their talents, we shape their skills and support their individual development, in order to make them creative and responsible human beings.	Indication of aspirations and intentions, concise and easy to remember mission, still not distinctive enough.
School trains pupils in self-reliance, responsibility and ability to learn. In the raising field of particular importance is developing abilities to cooperate in team work, as well as shaping pro-social behaviour, tolerance, willingness to help others and personal culture.	Indication of aspirations and intentions, concise and easy to remember mission, still not distinctive enough.
Our school is 'the school based on values' We teach self-reliance, cooperation and responsibility.	Clearly and plainly defined mission, precisely defined superior values.
We form the school's community. We give sense of security. We help every child with the full development of their talents in the atmosphere of tolerance and dialogue.	Hardly distinctive mission – it can be adopted by every school.

Source: <http://sto.org.pl> [online], accessed: 2011.12.01

On the basis of both the in-depth interviews conducted with the school managers and the analysis of STO schools' websites, three components of educational service offered by these institutions were elaborated. The perception of service components according to the STO managerial staff is presented in Figure 2.

## Figure 2. Components of STO educational service as perceived by school managers

### delivery processes

- number of pupils in classes
- teaching staff
- school's premises conditions

### supplementary services

- foreign languages
- special interest groups
- sport activities

### core product

- 
- safety
- knowledge and skills

Source: own

Analysing the collected research material it should be stated that the managers of non-public schools associated in STO are well familiar with the parents' expectations. They often derive their knowledge from systematically conducted customer satisfaction

researches. They don't, however, use this knowledge in full. They don't communicate it on the schools' websites. All surveyed schools associated in STO are similar; they have the same distinguishing features. It's no surprise, as they stem from the same need for creating better educational service than the public schools' offer. In the majority of cases STO institutions position themselves as the schools delivering crucial values and safe for pupils. It must be mentioned, however, that the importance of security or remarkable results will be diminishing in a longer run, because public schools have a fine infrastructure and report very good results, too. They are constantly supported by the state, while non-public non-profit schools lacks financial resources that could be spent on further development (for example they cannot contract bank loans).

The school managers notice the change in the parents' expectations and the stronger emphasis put on specific demands, but they have problems with adapting to this change. It often results from hasty actions, some habit and belief that they know better after all, because there are still no problems with attracting new pupils.

The practical conclusion for the future, stemming from the conducted research, is the necessity to use the knowledge on ever changing buyers' needs for efficient positioning of educational services in the market. The non-public STO schools' ability to attract pupils will depend on the application of distinguishing marks such as cosiness/privacy, development of positive relationships with both pupils and parents, transfer of values and implementation of alternative forms of education.

### Limitations and further research

The main limitation of the research including the parents of STO schools' pupils is the fact that they represented only two institutions located in Warsaw urban complex, having similar size and structure of pupils attending primary school and lower secondary school. The choice of the above schools was determined by their managers' consent and the availability of respondents. Beyond a doubt it would be interesting to have an opportunity to compare schools in various aspects, for example connected with the size of towns, in which schools are located, and the number of pupils attending. That would be possible upon extending the research to the majority of schools associated in STO.

In the case of the research conducted among the schools' managers, the intended sample wasn't achieved due to faint interest in partaking in the survey, despite the support provided by the association's main board. Although associated in STO, schools are self-governing and often feel no connections with one another.

In an attempt to overcome the limitations of the conducted research the methodological triangulation, consisting in using various research methods, was applied. In the research including the pupils' parents both qualitative (FGI) and quantitative (CAWI) methods were adopted. The schools were surveyed through interviews with their managers, accompanied by the analysis of their websites. The collected material was subject to both qualitative and quantitative analysis.

The significance of the research findings would increase, if it were conducted not only in the non-public sector of the education system, but also with participation of public schools. Conclusions of such study might be used as the foundation for decision-making in the field of school management and - thanks to ensuring desired level of pupil enrolment in these schools - they could result in the efficiency growth. This is why the

extension of the research scope is considered by the authors to be the main direction of the suggested continuation.

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## Labour's language skill in the liberalisation era: A case of Thai vocational students' English proficiency

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### *Abstract*

*Trade liberalisation which has been taken place around the world in recent years brings about a number of changes to implementing countries. Thailand is now committing itself to the liberalisation under ASEAN Economic Community (AEC), due to complete in 2015. Once the AEC takes effect, the labour markets across the region will be open for member countries' workers. To be able to reap benefits from liberalised labour market, workers need to overcome their language shortcomings and the government needs to provide facilities necessary for their proficiency improvement. To accommodate English improvement programme, therefore, this study aims at analysing the determinants of labour's English language proficiency in Thailand. It focuses on the case of vocational students in specific schools in Bangkok area. In order to undertake this research, various statistical tests for variance and mean heterogeneity, and stepwise regression associated with OLS to estimate the predictive power are employed and discussed. The study finds that students' grade records, attending extra curriculum English classes, and plan of working abroad are statistically significant in explaining Thai vocational students' English language proficiency in all skills. Other determining variables are found statistically significant in some English skills. This study's findings should offer insightful information for both private school entrepreneurs and government agencies in providing appropriate training for workers and prospective workers.*

*Key words: Labour Skill, English Language Proficiency, Thai Vocational Students*

### Introduction

Since the 1970s, the world economic system has been overwhelmed with trade liberalisation trend, both at multilateral and at bilateral levels. A number of countries committed themselves to different degrees of liberalisation, enduring its consequences, positive or negative, alike. As for Thailand, since 1967, it has joined a regional economic bloc called the Association of Southeast Asian Nations or ASEAN. Since then, ASEAN has moved its liberalisation forward with an aim to achieve a deeper level of integration and create the ASEAN Economic Community or AEC by 2015. The liberalisation targets under AEC move further than what ever happened before in this region. It will include the free movement of not only goods but also factors of production, such as labour, among member countries.

When the AEC becomes effective, economic activities between member countries and further afield could rapidly expand. Foreign investment, hoping to take advantage of the zero import tariffs among AEC members, may flow into Thailand to exploit it as a production base for the Southeast Asian market. More investment together with the possibility of skilled labour mobility could provide more employment opportunities in the

Thai labour market. There are a number of works examining the impact of trade liberalisation on employment, for example the surveying work by Lee (2005). He finds that most studies show the link between countries' trade openness and employment level. However, these studies provide mixed results, some show positive relations while the others indicate negative ones. Brühlhart, et al (2011), moreover, study the response of regional employment and nominal wages to trade liberalisation, in the case of the opening of Central and Eastern European markets after the fall of the Iron Curtain in 1990. They find that trade liberalisation has had statistically significant differential effects on both nominal wages and employment. Ernst (2005) also finds that trade liberalisation had a disappointing impact on employment in the case of Argentina, Brazil, and Mexico. Despite of the rich literatures regarding the liberalizing impact on the labour market, their findings are still inconclusive.

Unfortunately, the positive impact on skilled labour employment of liberalisation cannot be ensured. On the contrary, it is possible that AEC could present Thai workers with a competitive challenge either among themselves or from their ASEAN counterparts. As a result, Thai workers could be left to deal with both the opportunities and threats arising from AEC. In order to either reap benefits from the liberalisation or survive the strong competition under AEC, Thai skilled workers need to improve their necessary working skills, for example, English language, computer usage, and so on. Without the skill improvement, they may not be able to make the full use of the liberalising economic environment, or even worse, they may lose their present jobs. Therefore, it is very crucial for Thai skilled workers to enhance their working skills so that they can catch up with the globalising trend and increase their job performance.

Among those necessary working skills, English language proficiency is one of the most important as language is a fundamental part of workers' human capital (Rooth and Saarela, 2007). More recently, Kapur and Chakraborty (2008) suggest that English is increasingly valued in the labour market in this era of globalisation. They estimate the returns to English skills in the Indian economy and find that individuals who are more likely to have training in English earn significantly higher relative wages and better occupational outcomes even for the same level of overall education. Furthermore, in general, Thai workers' English language skill is lower than that of other ASEAN workers. One of the reasons lies in Thailand's historical background, as it had never been under colonial rules so its education system is mainly monolingual. As a consequence, English language has always been one of the weakest features of Thai skilled labour and it can be a decisive factor for any employment opportunities of workers. Thus, the improvement in English language proficiency is a critical step in securing the benefits generated from the economic liberalisation.

Therefore, the objective of this study is to explore Thai prospective workers' English proficiency and to analyse its determining factors. This study focuses on the case of vocational students because this group of students can be considered as a major source of potential skilled workers for the Thai labour market. Moreover, in most vocational college curricula, English language has been compulsorily included only at a minimum level, comparing with normal college curricula. This makes English language proficiency a key shortcoming of these vocational students.

The structure of this study is categorised as follows. Section II provides a brief review of literature on the determinants of language proficiency. Section III explains the data and variables as well as methodology used for the statistical analysis. Section IV presents and

discusses the study's findings. And the last section provides the conclusion and recommendation.

## Literature Review: The Determinants of Language Proficiency

This section reviews and discusses previous works on factors determining language proficiency. The interest on the determinants of language ability belongs to a broader field of the economics of language, which has been developed since the late 1970s, (Posel and Casale, 2010). Research undertaken by economists into the acquisition of language skills has to date focused on the case of immigrants. This focus is due to immigrants' apparent greater sensitivity to the acquisition of destination language. In Thailand, once the liberalisation under AEC takes effect, Thai labour could as well become more vulnerable to the issue of English language proficiency. It could determine workers' chances of retaining a present job or getting a new job. Therefore, this study employs the approach used to study immigrants' destination language acquisition and applies it to analyse the determinants of English language proficiency of Thai workers.

Language proficiency can be analysed using the human capital framework. According to human capital theory, language skills can be considered as human capital because they can satisfy the three requirements for human capital, that it is productive, costly to produce, and embodied in the person (Chiswick, 2008). Firstly, a person's proficiency in English language is productive in the liberalised labour market. Those who speak/read English would find it easier to obtain a job and would generally be more productive on the job, consequently increase their earnings. These benefits should provide economic and social incentives for Thai workers to improve their English. Secondly, those who acquire language skills need to bear the cost. Workers may have to spend a considerable amount of their own time and money for language training programmes to become proficient in English language. And lastly, language skills are embodied in the person and cannot be transferred. Unlike owning physical capital, such as a piano, which can be transferred to other persons; but like learning to play a piano, language skills cannot be separated from the person (Chiswick, 2008).

This study employs the model of language acquisition to examine the determinants of English language proficiency. This model was first introduced by Chiswick and subsequently developed in a series of studies done by Chiswick and Miller (1995, 1998, 2000, 2002, 2003, and 2007) and Chiswick (2008). A number of studies relating to this issue are also undertaken based on this model. According to the model of language acquisition, there are four conceptualized variables that could affect the level of English language proficiency of workers. These conceptual variables consist of exposure, efficiency, economic incentive, and wealth.

**Exposure:** It indicates the level of English language with which individuals have experience. The more often workers are exposed to English language, the better skills they will have. For that reason, opportunities to hear, speak, read, and study language are important for language learning. Chiswick and Miller (2000) examine the determinants of language practice among adult male immigrants in Canada. They find that higher educated people, who are more exposed to foreign languages before immigrating, are better trained in learning languages. Apart from the formal education of language in schools, opportunities or lack of opportunities to practice language in everyday life can influence the level of proficiency. Ethnic enclaves can decrease immigrants' exposure to destination language as found by Chiswick and Miller (2002) in their analysis of the



impact of immigrant concentrations on proficiency in destination language skills in the US. Their results show that a smaller minority language concentration ratio is associated with better English proficiency among immigrants. Another good proxy for exposure to English language is whether the country is a former colony of the US or UK. Thailand is not a former colony of both countries, therefore, the Thais are less exposed to English language (Chiswick, 2008).

**Efficiency:** It refers to the ability to convert exposure into language learning (Chiswick, 2008). Some individuals find it easier to learn a language than others and efficiency may be an important factor in language acquisition (Burdria and Swedberg, 2010). Age is usually a good proxy for efficiency in acquiring language skills. Younger people have a higher ability of learning languages. Therefore, for immigrants, the age at entry crucially determines efficiency (Isphording and Otten, 2011). However, age is not a relevant variable for this study. Education is considered as another efficiency variable. Those with more schooling are more proficient in learning language because they are more efficient learners (Chiswick, 2008).

**Economic Incentive:** An expected increase in wages, caused by becoming proficient, and expected longer duration of employment provide an economic incentive for acquiring better language proficiency (Chiswick and Miller, 2000). For example, the incentive for a Thai immigrant to acquire English proficiency will be greater, the longer his expected working duration in the US, as this will be associated with greater returns from an investment in language acquisition. Burdria and Swedberg (2010) analyse the determinants of Spanish language proficiency for male and female immigrants in Spain and they find that planning to stay in Spain more permanently is positively associated with language learning, although just for men.

**Wealth:** It provides a source of funds for investment in language acquisition. Greater wealth, which lowers the interest cost of funds, encourages greater investment in acquiring language skills and hence enhances language proficiency. According to Chiswick and Miller (2000), they use education attainment as a proxy for wealth in their study on the determinants of destination language proficiency of immigrants in Canada. They find the significant result of wealth variable.

## Data and Methodology

As stated earlier, the issue of employment and labour migration has been widely studied in academic research. Immigrants' language proficiency is considered to be one of the key accessing factors into the destination labour market. The importance of language proficiency can also be applied to vocational students who, after their graduation, will join the labour market and become its major driving force. This study, thus, focuses on exploring their English proficiency towards the new economic environment under AEC.

This section discusses data, variables, and methodology employed in this study. This is to provide a framework for clear understanding of the determinants of English language proficiency of vocational students. The sampling data was collected using a multi-stage random technique with a combination of cluster and purposive samplings. The sample includes four vocational schools with different sizes and locations, covering 3,760 students from these schools' total number of 10,505 students, who registered in the first semester of 2011 academic year. Each school's sample size accounts for about 30-40% of its total student population.

In order to avoid the bias problem from the measurement error of self-assessed questionnaires, the English proficiency test of grammar, vocabulary and listening skills was constructed for testing participated students of four selected vocational schools. The scores drawn from the test provide an unbiased level of English proficiency of this study's sample group. To accompany the English test, a survey instrument with questionnaires was also developed to gather relevant self-reported data from the same groups of vocational students who took the language test. Both English proficiency test and questionnaires were conducted in September 2011.

According to numerous relevant literatures, such as Chiswick and Miller (1995, 1998, 2000), Dustmann (1999), and, more recently, Chiswick and Taengnoi (2007), and Burdría and Swedberg (2010), they explore the explanatory power of several factors on the English proficiency of non-native speakers under the framework of the human capital theory. As discussed in an earlier section, they divide key social and economic factors into four main groups, namely exposure, efficiency, economic incentive and wealth (see Table 1 for more detail). Their survey series are thus underlined those four main groups to model the language proficiency equation. To measure the key determining factors of English proficiency for vocational students in this study, the questionnaires are structured based on the conceptual framework of those previous investigations to explain English test scores.

Exposure, in this study, refers to the respondents' experience abroad in English-speaking countries. Generally, having experience in other countries could encourage and build up persons' confidence in communicating in English. Moreover, this experience could enable persons to aware of the opportunity in getting better job positioning due to the better communication in English at work. At the same time, being exposed to new environment could also raise the realization about the importance of English as an international language. Students, who expose themselves to English-communicating countries, would thus be more encouraged to improve their English skills than the others. Moreover, the exposure to English language factor also includes knowledge on or understanding about AEC, the type of secondary school from which students graduated, and parents' occupation. Similar to experience abroad, the differences in each of these three sub-items can lead to the varied exposure levels of vocational students to English language which cause the differences in their proficiency improvement.

The difficulty in learning other languages partly depends on individual capability. With a widely agreed on notion, learners with specific characteristics can have more efficiency than the others in enhancing their language proficiency, this study, therefore, takes efficiency in to its consideration. Chiswick and Miller (2000) mention that efficiency refers to the extent of improvement in destination language skills per unit of exposure. Generally, persons' educational background could illustrate the past investment in human capital which could imply their ability to learn new language. Two factors, better (worse) academic background and school attainment, could lead to better (worse) chances to gain benefits in the labour market under the AEC. Efficiency factor in this investigation then includes the students' current level of vocational study, the field of vocational study, the past or present participation in extra curriculum English training, and academic or grade record to assess English test scores. Besides, the type of secondary school from which students graduated is also counted as an efficiency factor because different types of school, public or private, may offer different educational facilities to students, consequently, different levels of efficiency in obtaining language ability.

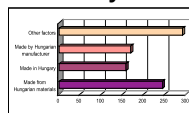
Another key item is economic incentive factors. They can be identified as the potentially beneficial situation or status of persons that could act as a stimulus for them to improve their English language skill. Chiswick and Miller (2000) explain that in the case of immigrants, economic incentive takes the form of the expected increment in wages from becoming language proficient and the expected future duration of employment. Hence, to approach the question on the determining factors of English language proficiency associated with economic incentives, this study covers the students' higher education plan, working abroad plan or working in multinational company plan, increase in job search opportunity of individuals and expected wage.

Finally, the wealth effects are included in this investigation to explore the supply side of the acquisition of better English proficiency in the case of vocational students. Although English subject is mandatory in vocational curricula, it is provided just a very basic level to students. This is far from fulfilling the requirement of the labour market under the intense liberalisation in both trade and investment. With the concern on this, it is unsurprising to see the increased investment in human capital in terms of English skill improvement. Since greater wealth could facilitate investment in acquiring English skill, it thus enhances English proficiency. To measure the influence of wealth on English learning, parents' and respondents' income per month are taken into account as proxies for the wealth of students and treated as the determining factors to explain English test scores.

To explain the common characteristics of samples among schools and other variables, the statistical analysis is started with data descriptive statistics, consisting of mean, standard deviation and frequency distribution. Paired sample t-test of different means and one-way analysis of variance (ANOVA) with post hoc Scheffe test<sup>18</sup> of multiple comparison procedure are also applied for all vocational students of four selected schools in Bangkok area who took the test of grammar, vocabulary and listening. The pair wise comparisons are divided into four skill dimensions across four selected variables, i.e. vocational schools, levels of study, fields of study, and gender. In further, stepwise regression model with OLS analysis is employed to address the explanatory power of potential factors, including four key items (exposure, efficiency, economic incentive, and wealth), on English proficiency. Each determinant of those four items is shown in Table 1.

The estimated regression of English proficiency can be written as:

$$SCORE_n = \phi + \sum_{i=1}^4 \sum_n \alpha_i EXPOS_{i,n} + \sum_{j=1}^4 \sum_n \beta_j EFF_{j,n} + \sum_h \sum_n \omega_h Other_{h,n} + \epsilon_n$$



where SCORE<sub>n</sub> is the English test score of individual respondents or vocational students n, while Φ, α<sub>i</sub>, β<sub>j</sub>, γ<sub>k</sub>, λ<sub>i</sub>, and ω<sub>h</sub> are the interested parameters to be estimated and ε<sub>n</sub> is the disturbance term of individual n to capture the unobserved characteristics that have impact on English proficiency. Letting EXPOS, EFF, ECON, WEA and Other are independent variables and, respectively denote the exposure, efficiency, economic incentives, wealth factors, and other main demographic variables of individual n, and consist of 22 variables (see Table 1 and Table 8). This investigation presents four

<sup>18</sup> The Scheffe test is unplanned comparison in ANOVA of which to test the hypothesis for equality of mean of each pair interested variable. Notably, the Scheffe test can reject the hypothesis of equal mean for all pair wise comparisons if and only if overall ANOVA test is also significant. It uses unequal sample size of interesting variables to be compared.

estimating approaches for grammar, vocabulary, listening and overall English proficiency. It must be noted that the advantage of OLS model over the common Logit model is that the estimated parameters are easier to interpret. However, there must carefully be discussed. As mentioned earlier, the test scores are used to measure the English acquisition of vocational students to avoid the bias of self-evaluation. This measurement is also applied to address the problem arising from the violation of OLS assumption of non-interval variable which could cause the biased estimators.

**Table 1 Definition of dependent variable, independent variables and determinants of English proficiency**

Items	Variables	Definition
Dependent Variable	English Test Score (SCORE)	This variable is based on a set of test scores measuring achievement in English proficiency in three dimensions of skill: grammar, vocabulary, and listening proficiency with 650 points full marks for each test. The overall evaluation of English proficiency is taken as a grand mean of those three test scores. A lower score is assumed a less English facility or proficiency.
Exposure (EXPOS)	Experience Abroad (EXPER)	Students had gone to other countries whose population can conduct a good conversation in English. Consequently, they may develop strong interest in acquiring English skill.
	Understanding in AEC (UAEC)	Understanding in AEC is measured by scores that individuals correctly answer the questionnaires on the AEC topic. Respondents were asked to answer 12 questions about the definition and framework of AEC and their scores are reformulated into percentage form. Higher scores mean good understanding about AEC, indicating students' interest in international economic affairs, then should be more inclined to improve their English.
	Graduated Secondary School (GSS)	GSS is the type of secondary school where individuals graduated from. This variable is identified by public school, private school, and non-formal and informal education. The secondary school curriculum is determined by the Ministry of Education in order to assure the standard and quality of qualification, however, school facilities, for example, may be different between public and private schools. This different exposure to English may result in differences in the fundamental background of students' English skills.
	Parents' Occupation (POC)	This variable is defined by categorising occupations of students' parents into three groups: government service, private company, and business owner and the others. Different organizational culture would provide different experience about opportunity at work which might lead to the different perception about the importance of English proficiency. And this perception can then be absorbed by their children.
Efficiency (EFF)	Level of Vocational Study (LVS)	This variable records the type of vocational level in which full-time students are currently taking. In Thailand, vocational study, determined by Office of Vocational Commission, is categorised as the certificate level and diploma level. The former is the lower level, accepting students who graduated from secondary schools. Diploma level is higher vocational study, accepting students who already graduated from the certificate vocational level. The certificate level is a three-year programme while the diploma level is a two-year programme. The level of study could also reveal the exposure of students to English. The longer schooling year is likely for students to be more open and attached to English.
	Field of Study (FOS)	This variable records the field of study offered by vocational schools under this study. To simplify the model and minimise the number of variables, it is constructed by regrouping the offered field of study into two main groups: commerce/business (e.g. accounting, marketing, business computer, logistics management, general management/secretarial science, retail business, hotel management, business administration, tourism management and information technology), and the others (e.g. home economics, fine and applied arts, tourism industry, and information technology and communication).
	Extra Curriculum (EXC)	Extra curriculum is outside school English classes that students currently take or had taken in the past. This variable captures the human investment, particularly, in language skill which could help students achieve better English learning efficiency compared to the others who had not taken extra courses.
	Grade Record (GRA)	Grade record is students' average grade of the last semester. It is commonly agreed that students with higher grade are more likely to have the greater level of efficiency to learn English.
Economic Incentive (ECON)	Plan of Higher Education (PHE): - In Thailand (PHET) - Abroad (PHEA)	This variable is defined by the study plan of students who decide to continue for higher degree after achieving vocational certificate or diploma. In general, higher education requires a higher level of English skills. Therefore, students with plan of higher education would have more incentive to improve their English proficiency. In order to combine the English proficiency into higher education plan under economic incentive encouragement, this variable is also divided into two choices of study plan: Thailand and abroad.
	Plan of Working Abroad/Multinational Company (PAMC)	Plan of working abroad or in multinational company not only expects for better job and wage, but also encourages the English proficiency enhancement to have higher opportunity in job search.

	Increment Job Opportunity (IJO)	This is defined as the belief of students that English skill could enhance opportunity in job search. Students who have that positive attitude would intently focus on improving their English skill.
	Expected Wage (EXW)	According to theory of labour marginalization with maximizing framework, it provides undoubted solution that employers will pay at marginal productivity of labour. The good English skill is generally treated as an extra qualification for recruitment of which brings to considering of recompense. As a result, students who expect high wage payment would steadily put more effort on upgrading their English skill.
Wealth (WEA)	Parents' Income (PRI)	Parents' income is available in monthly. This variable refers to economic background of students' family in order to give more financial support on human capital investment. As a consequence, students with better economic background are expected to have greater English background than the others.
	Student's Income (STI)	Student's income is available in monthly and included allowance and part time job. The reason of including STI is similar to PRI.

Additionally, test statistics for significant explanation of each variable in above equation is under the null hypothesis of individual estimated parameter  $i, j, k, l,$  and  $h$  indifferent from zero;  $H_0 = \alpha_i = 0$ , for instance. The test statistics for such a hypothesis are t-test statistic at a conventional level of 5% significant level ( $\alpha=0.05$ ) or 95% confidence level.

## Results and Discussions

### Descriptive Analysis:

Table 2 shows the frequency distribution of respondents classified by their specific data, which had been gathered from self-reported questionnaires with students in four vocational schools in Bangkok: School I, School II, School III, and School IV. It can be seen that the total number of respondents is 3,760 students (Table 2). Among them, the largest group comes from School I, with 33.83% of all students. Of the students under this study, over 70% are female. As for their levels of study, there are two levels of vocational study in Thailand, they are certificate or the lower level, and diploma, the higher level. Most vocational schools have less number of diploma level students. Thus, almost three-fourths of all respondents in this study are in the certificate level of study, i.e. 74.60%. The field of study can also be an important factor affecting students' English learning performance. Here, 85.60% of all respondents enroll in the field of commerce. Most students taking part in this study graduated from public secondary school, with 82.82% of all respondents. As for the family background of respondents, 79.25% of their parents own businesses or do some unspecified jobs, whereas 11.89% work in the private sector and another 8.86% work in the public sector.

Apart from respondents' personal background, the following presents their experiences and plans which could indicate the factors affecting their English learning ability. With reference to respondents' past visit to countries communicating in English, only 4.73% of all respondents belong to this group. As for the plan of higher education, almost all of respondents or 94.12% said that they plan for higher education after they graduated from their current studies. However, only 3.96% of all respondents express the desire for study abroad. Another future plan taken into account here is the plan of working abroad or working with multinational company. About half of respondents (48.38%) are interested in these options. Moreover, when asked about their job opportunities, 95.19% of all respondents believe that English language ability could help increase their job opportunities. In spite of their realisation of the benefit of English language, only 32.21% is taking or took extra curriculum English training.

Table 3 shows descriptive statistics of test scores and other variables. The mean value of these four scores is rather low, ranging from the lowest of 147.78 for listening test to the highest of 214.13 for grammar test, against the full mark of 650 for each test. As for the distribution of these data, they can be considered as normally distributed. Standard deviation is lower than half of the mean value for almost all test scores. The values of skewness of all four test scores are close to zero whereas the kurtosis values of all these scores are not very far from three. They basically reflect that those test scores are likely to exhibit normal distribution.

**Table 2 Frequency distribution of students classified by vocational schools and various determining variables**

Items	Frequency (No. of Students)	Percent (%)
Vocational Schools		
School I	1,272	33.83
School II	1,086	28.88
School III	709	18.86
School IV	693	18.43
Gender		
Male	1,113	29.60
Female	2,647	70.40
Levels of Study		
Certificate	2,805	74.60
Diploma	955	25.40
Fields of Study		
Commerce	3,219	85.60
Others	541	14.40
Graduated Secondary School		
Public School	3,114	82.82
Private School	646	17.18
Parents' Occupation		
Government Service	333	8.86
Private Company	447	11.89
Business Owner and Others	2,980	79.25
Experience Abroad		
Having Experience	178	4.73
No Experience	3,582	95.27
Plan of Higher Education		
Having Plan	3,539	94.12
- Thailand	3,390	90.16
- Abroad	149	3.96
No Plan	221	5.88
Plan of Working		
Abroad/Multinational Company	1,819	48.38
No Plan	1,941	51.62
Increment Job Opportunity		
Increment	3,579	95.19
No Effect	181	4.81
Extra Curriculum English Class		
Having/Had	1,211	32.21
No	2,549	67.79
Total Students	3,760	100.00

As for general academic performance of respondents, it can be shown, in Table 3, by their grade records, which also vary very largely, from 0.93 to 4.00, with the mean value of 2.79. Another group of variables, that can represent the wealth of respondents or respondents' family, includes their parents' income and their own income. The mean value of the income of respondents' parents and of respondents themselves equals to 16,319.83 baht and 3,330.26 baht, respectively. Respondents report their expected wages and their mean value equals to 18,901.60 baht. The respondents' understanding about AEC is moderate with the mean value of score is 58.64%. However, they have a large gap of AEC knowledge as indicated by the lowest score of 8.33% to the highest score of 100%.

**Table 3 Descriptive statistics of various English test scores and respondents' other characteristics**

Variables	Median	Min	Max	Mean	SD	Skew	Kur
Vocabulary Test Score	170.00	0.00	430.00	168.72	85.61	0.29	2.78
Grammar Test Score	215.00	0.00	425.00	214.13	55.12	-0.12	5.00
Listening Test Score	240.00	5.00	512.00	147.78	72.53	0.59	4.86
Average Test Score	178.30	38.30	378.33	176.88	47.12	0.04	2.99
Grade Record	2.80	0.93	4.00	2.79	0.64	-0.07	2.24
Parents' Income (baht)	11,120.00	1,500.00	300,000.00	16,319.83	16,306.00	6.61	83.34
Student's Income (baht)	3,000.00	500.00	60,000.00	3,330.26	2,453.36	10.36	172.79
Expected Wage (baht)	15,000.00	4,000.00	300,000.00	18,901.60	15,776.23	5.92	62.70
Understanding on AEC(%)	58.33	8.33	100.00	58.64	15.24	-0.15	2.79

Note: SD is standard deviation. Min, Max, Skew, and Kur stand for the minimum, maximum, skewness, and kurtosis values of test scores, respectively.

To have a clearer picture of respondents' English ability, it is necessary to consider students' test scores according to their schools, levels of study, fields of study, and gender (Table 4). As for the vocabulary test, all four schools produce similar maximum and minimum scores. Yet, their mean scores are different, as School I and II enjoy higher scores of 182.36 and 180.84, respectively, whereas, School III and IV get lower scores of 145.76 and 148.20, respectively. When the vocabulary test scores are classified based on respondents' levels of study, it can be seen that both certificate and diploma levels have almost identical minimum and maximum scores but their mean scores are different, 165.61 for certificate level students and 177.86 for diploma level students. If the test scores are considered by respondents' fields of study, it can be seen through the mean value that students in the commerce field get much better scores than other fields. Respondents with different genders get slightly different mean scores for vocabulary test as female has a little higher score than male has.

For grammar test, the maximum, minimum, and mean scores of all four schools under this study are in similar pattern with the case of vocabulary test. All four schools get higher mean scores from grammar test than from vocabulary test. When the grammar test scores are classified by the levels of vocational study, the same as the vocabulary test, diploma students, with 221.20 points, enjoy higher mean scores than certificate students, with 211.72 points, do. As for the fields of study classification, commerce students get higher mean scores than other groups of student. If the gender of respondents is taken into account, it can be seen that female gets better mean score than male does.

The mean value of listening scores is smaller than that of the vocabulary and grammar tests for all schools. When the listening test scores are classified based on respondents' levels of study, it can be seen that the mean scores of both certificate and diploma students are almost equal, with 147.50 points for the former and 148.58 points for the latter. When respondents' fields of study are considered, just like in the case of vocabulary and grammar tests, commerce students do better with their mean score than other students. Female respondents' mean score for listening test is slightly higher than that of their male counterparts.

**Table 4 Descriptive statistics of English test scores classified by vocational schools, levels of vocational study, fields of study and gender**

Statistics	Vocational Schools:				Levels of Study:		Fields of Study:		Gender:	
	School I	School II	School III	School IV	Certificate	Diploma	Commerce	Others	Male	Female
<b>Vocabulary Test Score</b>										
Median	185	175	130	140	165	175	170	155	165	170
Min	5	5	0	0	0	0	0	0	0	0
Max	430	420	425	420	420	430	430	420	430	420
Mean	182.36	180.84	145.76	148.20	165.61	177.86	171.58	151.74	165.81	169.95
SD	79.68	84.64	87.20	87.19	86.46	82.43	85.54	84.10	86.43	85.24
Skew	0.09	0.31	0.53	0.56	0.28	0.34	0.28	0.35	0.26	0.30
Kur	2.93	2.75	2.99	3.02	2.70	3.04	2.78	2.84	2.75	2.79
<b>Grammar Test Score</b>										
Median	225	230	190	200	210	225	215	200	210	215
Min	5	2	0	5	5	0	2	0	0	2
Max	425	405	425	415	425	425	425	390	425	405
Mean	223.21	222.59	194.39	204.39	211.72	221.20	215.93	203.39	208.69	216.41
SD	47.35	52.59	58.61	61.45	56.12	51.47	54.32	58.58	60.44	52.57
Skew	0.31	-0.31	0.07	-0.04	-0.03	-0.36	-0.17	0.20	-0.18	-0.04
Kur	4.57	5.69	4.75	4.89	4.85	5.79	5.31	3.91	4.66	5.08
<b>Listening Test Score</b>										
Median	140	145	135	140	140	145	140	140	140	140
Min	5	5	5	5	5	5	5	5	5	5
Max	400	512	415	415	512	400	512	400	400	512
Mean	150.20	149.89	140.32	147.63	147.50	148.58	148.68	142.38	146.85	148.17
SD	68.62	67.72	76.38	81.82	74.55	66.27	71.97	75.65	75.86	71.10



Skew	0.65	0.53	0.50	0.71	0.68	0.25	0.62	0.50	0.52	0.63
Kur	5.18	5.36	4.25	4.32	4.84	4.74	4.96	4.30	4.24	5.17
Average Test Score										
Median	185.00	183.30	158.30	166.70	175.00	183.30	180.00	168.30	171.67	180.00
Min	51.67	58.30	38.30	40.00	38.30	55.00	40.00	38.30	38.30	41.70
Max	378.33	340.00	311.70	331.70	333.33	378.33	378.33	298.30	378.33	340.00
Mean	185.26	184.44	160.16	166.74	174.94	182.55	178.73	165.84	173.78	178.17
SD	42.97	43.89	48.76	51.08	47.47	45.65	46.76	47.80	49.96	45.83
Skew	0.06	0.11	0.17	0.24	0.05	0.04	0.04	0.06	0.15	-0.01
Kur	3.32	3.02	2.82	2.80	2.90	3.29	3.02	2.81	2.99	2.98

Note: See Table 3

Lastly, the mean value of average test score can primarily indicate the overall picture of English language performance of vocational students under study here. Respondents from School I and II seem to perform better than those from School III and IV, with higher mean scores in all three tests, resulted in their higher means of average test scores. In all three tests, diploma students show their better English language skills than certificate students. Commerce students also fare better than those from other fields of study. And lastly, female shows better English skills than male does.

Before going further to equal mean test, the group variance homogeneity has to be initially tested by Bartlett's test with chi-square statistics. Test results suggest that the variances of English test scores of the four selected vocational schools are all not homogenous (Table 5). As a result, the ANOVA may not be an appropriate analysing tool. However, with the complex comparisons of mean among four schools associated with four English skills, post hoc Scheffe's method is therefore applied to test the homogeneity of mean. For other pair wise comparisons, the hypothesis of equality of variance across two groups cannot be rejected in the case of levels of study on vocabulary and average scores; fields of study on vocabulary, listening, and average scores; and gender on vocabulary score as shown in Table 5. In other words, grammar is the most volatile skill while vocabulary skill is less volatile, in comparison. As for the homogenous variance tests with the accept results, the t-tests for mean differentiation between those pairs are thus followed the unequal variance condition.

**Table 5 Group test for homogenous variance on students' English test scores for selected demographic variables**

Group	Test Result: Hypothesis of homogenous group variance			
	Dimensions of English Skill			
	Vocabulary Score	Grammar Score	Listening Score	Average Score
Vocational Schools*	Reject ( $\chi^2(3)=10.95$ , Prob=0.01)	Reject ( $\chi^2(3)=77.00$ , Prob=0.00)	Reject ( $\chi^2(3)=43.02$ , Prob=0.00)	Reject ( $\chi^2(3)=37.19$ , Prob=0.00)
Levels of Study (Diploma-Certificate)	Accept (F=0.91, sig.=0.075)	Reject (F=0.84, sig.=0.001)	Reject (F=0.79, sig.=0.000)	Accept (F=0.93, sig.=0.145)
Fields of Study (Commerce-Others)	Accept (F=0.97, sig.=0.619)	Reject (F=1.163, sig.=0.019)	Accept (F=1.11, sig.=121)	Accept (F=1.05, sig.=0.489)
Gender (Male-Female)	Accept (F=0.97, sig.=0.578)	Reject (F=0.76, sig.=0.000)	Reject (F=0.88, sig.=0.001)	Reject (F=0.84, sig.=0.001)

Note: \* Test for the homogeneity of variance between four participating vocational schools uses the Bartlett's Chi-square test with degree of freedom of three,  $\chi^2(3)$ . Prob. is probability of significant level.

F stands for F-statistics for the homogeneity of group variance. Sig. is significant level.

To further statistical analysis, the homogeneity of mean is explored by the Scheffe's method. When comparing the mean of English test scores across schools (Table 6), the pair comparisons provide evidence of mean differentiation among schools, meaning that students from different schools have different proficiency in English skills. It can be seen that the mean scores of School III for all three skills are significantly lower than those of School I and II at a less than conventional 5% significant level or more than 95% confidence level. School IV's mean of grammar test score is significantly lower than that of School I and II, while it is significantly higher than that of School III. Besides, School IV's mean of vocabulary test score is significantly lower than that of School I and II. However, there is no statistical evidence of the difference in mean scores for all three English skills between School I and II. Conclusively, School I and II, on average, are of equal English proficiency in all four skills and have higher skills than other two schools. Table 6 indicates the importance of educational institutions on their students' English proficiency. Schools' specific factors, for example, their locations, teaching facilities, management policies, can influence their students' English language performance. Furthermore, it can also be said that vocational students averagely have the highest skill on grammar, comparing with vocabulary and listening, respectively.

**Table 6 Paired samples t-test on English test scores across participating schools**

Pairs	Test Result: Hypothesis of homogenous group mean			
	Means of English Skills			
	Vocabulary Score	Grammar Score	Listening Score	Average Score
Vocational Schools* :				
School I	182.36	223.21	150.20	185.26
School II	180.84	222.59	149.89	184.44
School III	145.76**	194.39**	140.32**	160.16**
School IV	148.20**	204.39***	147.63	166.74****

Note: \* Test for the homogeneity of mean across pair wise groups among four participating vocational schools uses Scheffe's method to circumvent complex comparison.

\*\* Significantly lower than School I and II (less than 5% level)

\*\*\* Significantly lower than School I and II, and higher than School III (less than 5% level)

\*\*\*\* Significantly lower than School I and II (less than 5% level), and higher than School III (less than 7% level)

**Table 7 Paired samples t-test on English test scores for selected demographic variables**

Pairs	Mean Diff.	SEM	95% CI of the mean difference		t-stat	Sig.	d.f.
			Lower	Upper			
<b>Vocabulary Score</b>							
Levels of Study (Diploma-Certificate)	12.24	3.20	5.97	18.52	3.80	0.00	3,758.0
Fields of Study (Commerce-Others)	19.84	3.97	-12.07	-27.62	5.00	0.00	3,758.0
Gender (Male-Female)	-4.14	3.06	-10.14	1.85	1.35	0.18	3,758.0
<b>Grammar Score</b>							
Levels of Study (Diploma-Certificate)	9.48	1.97	5.61	13.35	4.80	0.00	1,783.0*
Fields of Study (Commerce-Others)	12.54	2.69	7.25	17.83	4.65	0.00	704.9*
Gender (Male-Female)	-7.72	2.08	3.64	-3.71	-11.8	0.00	1,853.0*
<b>Listening Score</b>							
Levels of Study (Diploma-Certificate)	1.08	2.57	-3.95	6.11	0.42	0.67	1,837.1*
Fields of Study (Commerce-Others)	6.30	3.37	-0.31	12.91	1.87	0.06	3,758.0
Gender (Male-Female)	-1.31	2.66	-6.53	3.91	-0.49	0.62	1,972.0*
<b>Average Score</b>							
Levels of Study (Diploma-Certificate)	7.60	1.76	4.15	11.06	4.32	0.00	3,758.0
Fields of Study (Commerce-Others)	12.89	2.18	8.62	17.17	5.91	0.00	3,758.0
Gender (Male-Female)	-4.39	1.74	-7.81	-0.97	-2.52	0.01	1,936.3*

Note: Mean Diff. is mean difference, SEM is standard error of the mean, CI is confidence interval, t-stat is the value of t-statistics, sig. is significant level.

d.f. is the Satterthwaite's degree of freedom under the condition of unequal variance across interested group comparisons.

The analysis on the homogeneity of mean is continued on the English test scores for selected variables. As can be seen in Table 7, t-statistic values show the significant levels for several pair comparisons, with the exception of listening scores and vocabulary scores in the case of gender. This means that different levels of study (diploma or certificate) and different fields of study (commerce or the others) can lead to students' differences in their vocabulary score. The differences in the levels of study, fields of study, and gender can all lead to the differences in students' grammar score and average English test score. In contrast, the differences in the levels of study, fields of study, and gender are not likely to bring about any differentiation in students' listening score. This may be because of the nature of Thai language which is quite distant from English, resulting in listening being the weakest English skill of Thai students, regardless of their levels of study, fields of study, and gender. The above findings imply that these students' characteristics enable them to have different English skills, leading to different English test scores. They are also consistent with the findings of Chiswick and Miller (2007) and their other works, as discussed earlier, which show that increases in the level of education are associated with immigrants' better English proficiency. Another case is the importance of gender difference which is supported by Dustmann and Fabbri (2003), who indicate that males have a significantly higher probability to be fluent in language.

### Stepwise Regression Analysis:

The earlier statistical findings provide the evidences from various tests that explore English skill in four different dimensions of vocational students in four schools located in Bangkok area. They focus on examining the general characteristics of students and pair

wise comparisons on students' English proficiency. Hence, it is important to emphasize another question of the explanatory power of demographic, socio-economic and particular factors on English proficiency to draw the accurate influence of various determinants on prospective workers' English skills. To address this question, this study employs stepwise regression to investigate the relationship between students' English language ability and the five groups of independent variables, which, based on the human capital theory framework, have been identified as the determinants of language proficiency acquisition. As shown in Table 8, dependent variables are the scores of three English skill tests as well as their average scores. Independent variables include several variables selected and grouped under the four main conceptual factors, namely exposure, efficiency, economic incentive, and wealth. Moreover, some demographical characteristics, i.e. respondents' gender and school, are also included in the stepwise analysis. Summary of all variables used in the regression estimation is presented below in Table 8.

The results of stepwise estimations show various patterns of the explanation of English proficiency in vocabulary, grammar, listening and overall (average) skills which are indicated by test scores. Table 9 elaborates the statistic findings from stepwise regression associated with OLS estimation in detail. It demonstrates the predictive power of 22 independent variables that are used in the regression on each of the four dimensions of English test scores. All four main items of variables, namely exposure, efficiency, economic incentive, and wealth, are a good assessment on English test scores, with the exception of grammar test score. Exposure seems to have no effect on vocational students' grammar skill. This could be because, in Thailand, grammar course has been mandatory in regular English language curriculum since primary school. As a result, in general, students have been required to take English grammar course since very young age, so their grammar skill is broadly better than other skills. This can also be reflected by the highest mean of grammar scores with median close to mean value. Therefore, the touch of or exposure to new social and economic environment would have less impact on the acquisition of grammar proficiency, comparing with other skills.

**Table 8 Description of dependent and independent variables used in the estimation**

Items	Description of Variables
Dependent variables:	Vocabulary test score (VS) Grammar test score (GS) Listening test score (LS) Average test score (AS)
Independent variables:	
Exposure (EXPOS)	Experience abroad (EXPER); 1=Having experience, 0=No experience Understanding in AEC (UAEC) Graduated secondary school (GSS); 1=Public school, 0=others Parents' occupation (POC); - 1=Government service (POCG), 0=others - 1=Private company (POCP), 0=others - 1=Business owner and others (POCB), 0=others
Efficiency (EFF)	Level of vocational study (LVS); 1=Diploma level, 0=Certificate level Field of study (FOS); 1=Commerce, 0=others Extra curriculum (EXC); 1=Having experience, 0=others Grade Record (GRA)
Economic Incentive (ECON)	Plan of higher education (PHE); 1=Having plan, 0=others Plan of study abroad (PHEA); 1=Abroad, 0=Thailand Plan of working abroad/multinational company (PAMC); 1=Having plan, 0=No plan Increment job opportunity (IJO); 1=Increment, 0=No effect Expected wage (EXW)
Wealth (WEA)	Parents' income (PRI) Students' income (STI)
Other demographic variables:	
Gender	Gender (GEN); 1=Male, 0=Female
Participated Vocational Schools (VOS)	School I (VOS1); 1=School I, 0=others School II (VOS2); 1=School II, 0=others School III (VOS3); 1=School III, 0=others School IV (VOS4); 1=School IV, 0=others

Note: Dummy variables with values of 1 and 0 are created to avoid the singular matrix problem in regression.

Among 22 independent variables, eight of them present insignificant explanation for all four dimensions of English skill. These eight variables, consisting of EXPER, POCG, PO CB, FOS, PHE, PHEA, EXW, and VOS4, have less predictive power at a significant level of 5% ( $\alpha=0.05$ ) or at a 95% confidence level. It should be noted that experience abroad and plan to continue higher education abroad provide statistically insignificant effect on all test scores. With switching of variable from plan of higher education abroad to Thailand under the same framework, the re-estimated outcome shows a high significance of its explanatory power on all English proficiencies. This finding argues against the common belief that the interest in studying abroad would result in persons' encouragement to enhance other language acquisition. However, this implication must be interpreted with caution due to the small number of respondents who show their intention of studying abroad. Moreover, cross tabulation reveals that 163 students out of 178 students, who had been abroad, plan to further their academic degree in foreign institutions. On the other hand, EXC, GRA, and PAMC significantly provide positive assessment to all four skill dimensions. This positive significance is an unsurprising outcome. Intuitively, taking extra curriculum English course and having good grade record strongly emphasize students' solid educational background, leading to efficiency in

English learning. Plan of working abroad or at multinational company could work as an incentive for students to put more effort on improving their English proficiency, so that they could improve their job opportunities and succeed in their plan. This finding is similar to Burdria and Swedberg (2010) which present that immigrants' plan to stay in Spain has a significant and positive influence on their Spanish language improvement.

More interestingly, the statistical significance of understanding about AEC implies its positive explanation on English proficiency in vocabulary, listening and average test scores. English vocabulary and listening parts are required less intensively in schools' regular English class so these skills could be improved more readily by self-study. Searching for knowledge on AEC through various media and sources could inevitably expose students to English vocabulary and listening. Furthermore, understanding about AEC and its importance to the Thai economy could help stimulate students to improve their English ability so that they can secure better career and job opportunities in the future. This is consistent with a recent work, Tubergen and Kalmijn (2009) argue that, for immigrants in the United States, the degree of globalisation of their country of origin has a positive effect on pre-migration exposure to English.

The positively and statistically significant explanatory power of LVS on vocabulary, listening, and average scores underlines the impact of education level on students' English proficiency. This is very much consistent with the findings of a number of earlier studies on the determinants of language skills, for example, Chiswick and Miller (2000, 2007); Chiswick, Lee, and Miller (2002); Burdria and Swedberg (2010), and so on. Unsurprisingly, education level is one of the most widely used variables in the study of the economics of language. And most of the studies in this field find a statistical and positive significance of education attainment.

The negative significance of GSS indicates that graduation from public secondary school could adversely affect students' level of vocabulary, listening, and average test scores. As explained earlier, public school could possibly offer inferior English language teaching facilities, thus less exposure of students to language practice, consequently lower test scores. The positive significance of PRI in this study indicates the importance of wealth as a determining factor for vocational students' English proficiency since the higher parents' income, the higher opportunities for students to access English training. The importance of PRI signifies the impact of not only wealth but also family background on language acquisition. Family background, in various forms, affects person's language skills. As for gender, male is statistically significant in explaining students' language skills, especially in the case of vocabulary and average test scores. This is very much in line with Dustmann and Fabbri (2003).

**Table 9 Stepwise regression results**

Variables:	Vocabulary Score (VS)		Grammar Score (GS)		Listening Score (LS)		Average Score (AS)	
	Estimated Coefficient	t-test Sig. Level ( $\alpha$ )	Estimated Coefficient	t-test Sig. Level ( $\alpha$ )	Estimated Coefficient	t-test Sig. Level ( $\alpha$ )	Estimated Coefficient	t-test Sig. Level ( $\alpha$ )
Constant	69.46 (8.98)	0.000	104.74 (8.30)	0.000	147.04 (5.29)	0.000	101.27 (6.11)	0.000
EXPER	-	-	-	-	-	-	-	-
UAEC	0.33 (0.10)	0.001	-	-	0.20 (0.06)	0.001	0.21 (0.05)	0.000
GSS	-14.12 (3.78)	0.000	-	-	-6.25 (2.39)	0.009	-6.04 (2.07)	0.004
POCG	-	-	-	-	-	-	-	-
POCP	-9.44 (4.40)	0.000	-	-	-	-	-4.78 (2.40)	0.047
POCB	-	-	-	-	-	-	-	-
LVS	6.84 (3.29)	0.038	-	-	5.05 (2.09)	0.016	4.46 (1.80)	0.014
FOS	-	-	-	-	-	-	-	-
EXC	7.10 (3.07)	0.021	6.59 (2.72)	0.015	4.52 (1.95)	0.020	6.29 (1.69)	0.000
GRA	22.53 (2.43)	0.000	5.34 (2.00)	0.007	16.17 (1.49)	0.000	14.95 (1.32)	0.000
PHE	-	-	-	-	-	-	-	-
PHEA	-	-	-	-	-	-	-	-
PAMC	13.18 (2.87)	0.000	10.94 (2.53)	0.000	4.67 (1.82)	0.010	9.75 (1.56)	0.000
IJO	-	-	17.61 (6.36)	0.000	-	-	8.24 (3.93)	0.036
EXW	-	-	-	-	-	-	-	-
PRI	-	-	2.77E-4 (7.79E-5)	0.000	-	-	160E-4 (4.91E-5)	0.001
STI	-	-	-	-	-	-	6.87E-4 (3.32E-4)	0.038
GEN	11.94 (3.34)	0.000	-	-	-	-	5.34 (1.83)	0.003
VOS1	27.59 (3.52)	0.000	-	-	19.83 (2.23)	0.000	16.30 (1.92)	0.000
VOS2	25.69 (3.64)	0.000	-	-	15.94 (2.30)	0.000	14.65 (1.99)	0.000
VOS3	-	-	-7.84 (3.36)	0.020	-	-	-	-
VOS4	-	-	-	-	-	-	-	-
Adj. R <sup>2</sup>	0.08		0.02		0.09		0.12	
F-statistic	30.49 ( $\alpha=0.000$ )		12.19 ( $\alpha=0.000$ )		42.64 ( $\alpha=0.000$ )		35.19 ( $\alpha=0.000$ )	
#obs.	3,293		3,293		3,293		3,293	

Note: Number in the bracket is standard error. Adj.R<sup>2</sup> is adjusted R<sup>2</sup>.  $\alpha$  is significant level at 5%. #obs. is the number of observation (students).

Another interesting point is on the statistical significance of schools in explaining their students' English language skills. It can also be seen that School I and II provide a positive impact on their students' performance in vocabulary, listening, and overall English whereas the effect of being enrolled in School III on its students' English ability is statistically and significantly negative. The study offers no statistical evidence on the impact of School IV on its students' English proficiency. These results demonstrate that factors related to vocational schools, such as management policies and academic environment, could play a key role in shaping their students' English skills. They could also accelerate or decelerate students' language proficiency improvement.

## Conclusion and Recommendation

As the completion of AEC is fast approaching in 2015, the impact of AEC is increasingly realised throughout the region. Its impact will not confine only on the liberalisation of market for goods but will also include the free movement of factors of production, such as labour, in particular. With AEC, member countries' skilled labour will be allowed to

move freely across countries, both inflows and outflows. As for Thailand, the more liberalised labour market due to AEC could provide job opportunities for Thai workers both at home and abroad with, in turn, more competitive environment. To materialise these opportunities, they need to overcome their several shortcomings especially their weak English proficiency, comparing with other AEC workers. However, solving this issue needs to know workers' and prospective workers' current English capacity. Therefore, this study aims at analysing factors affecting prospective workers' English ability, with special emphasis on vocational students in Bangkok area. These students constitute a large part of potential workers coming to the labour market.

This study is undertaken based on the principles of human capital theory and follows earlier researches' conceptual framework of the determinants of English skill acquisition, which considers the supply and demand for investment in language proficiency improvement. It presents four fundamental variables, i.e. exposure to English language, efficiency in language learning, economic incentive for acquiring better English language proficiency, and wealth for investment in language acquisition, as well as other demographic determinants. According to this framework, this study develops 22 independent variables. To compile these variables, the questionnaires are conducted with participated vocational students. The analysis is also based on four English skill test scores, namely, vocabulary, grammar, listening, and average scores, to avoid biased measurement. These test scores are treated here as dependent variables. In order to achieve the objective of this study, various statistical tests and stepwise regression are employed.

The results of statistical tests show general characteristics of these variables, for example, normal distribution, mean differences, providing a necessary groundwork for further study on independent variables' explanatory power. In further, mean differences show that vocational students have the highest skill on grammar while less ability in listening. The finding also presents differentiating English proficiency between schools in every skill.

The pair comparisons of mean exhibit the inequality of mean scores across four characteristics of participated students. School I and II's students have significantly higher mean of test scores in all four skills. Generally, students with different levels of study (diploma or certificate), different fields of study (commerce or the others), and different genders (male or female) have statistically significant differences in English proficiency. Students who are in diploma level have higher proficiency than certificate ones because the longer schooling years bring about learning efficiency. Students with major in commerce and female students are likely to be more proficient in English than those with other majors and male students. Due to the nature of the subject, students with major in commerce are likely to be better equipped with information about economic and business situations as well as the importance of English on the economy. Therefore, they tend to be better prepared on English skills than students with other majors.

Moreover, stepwise regression analysis shows that, to a different extent, all four conceptual factors and demographic variables have significant impact on students' English proficiency. Specifically, it provides statistical evidence of positively significant explanatory power of three variables, i.e. extra curriculum English training, grade record, and plan of working abroad, on all four English skills. The significance of these three variables indicates the clear influence of efficiency and economic incentive factors on students' English proficiency. On the other hand, another group of eight variables, for



example, students' experience abroad, plan of higher education, and expected wage, is found to be statistically insignificant. Interestingly, knowledge on AEC can positively assess some test scores. This could reflect a good indicator of future Thai labour market under high competitive pressure when AEC is fully applied.

The above findings provide a crucial piece of information on the factors that could enhance future workers' English proficiency. This could enable both government agencies and private school businesses to design appropriate English trainings to support vocational students who would soon join skilled-labour force in Thailand. This is to allow them to compete more efficiently in the more liberalised labour market AEC.

An implication of this study for education and labour policies is that prospective workers' success in improving English proficiency lies in their characteristics. As attending extra curriculum English classes seems to enhance students' English ability, policymakers should pay attention to providing more and more English trainings to students. And for students with financial difficulties, these trainings could be sponsored by public funds to allow their wider coverage. In addition, to reinforce this measure, it should be an English exit-exam for all graduating vocational students in order to guarantee their level of English proficiency. Due to the nature of vocational study, it is also important for policymakers to devise policy measures that promote both vocational and English language trainings. This is to ensure students' adequate enhancement in work-related or technical terms English. Furthermore, government agencies should encourage or support businesses, by providing public funding, in offering on-the-job trainings, combining both technical knowledge and English language, for their workers.

As discussed earlier, the estimated results indicate the negative effect of graduation from public secondary school and studying in vocational School III on English test scores. The implication of schools, both secondary and vocational, on their students' language learning is quite obvious. This may be due to the difference in educational provision across schools, such as school facilities and teachers' quality. As a response, the government should play an actively supervising part to promote the role of schools in supporting their students' English skill improvement. Schools themselves should pay attention to their students' needs and identify their strengths and weaknesses in language learning as well as provide lessons suitable to their requirements. With tailor-made lessons and appropriate teaching facilities provided by schools, students' English language proficiency should be improved constantly.

Yet, as presented above, the weakest English skill of vocational students is listening. Additionally, this is not the focus skill in the Thai tertiary education English curriculum, even though it is the skill that used most in the workplace (Wiriyaichitra, 2002). Thus, any English training programme should intensively focus on listening skill improvement. Moreover, the continuing investment in human capital together with understanding how globalisation enhances job opportunity could stimulate vocational students to prepare themselves for the intense competition in the liberalisation era.

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## Financial ratios as an evaluation instrument of business quality in small and medium-sized enterprises

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### Abstract

*Small and medium-sized enterprises have been recognized as a separate but very important economic discipline. SMEs prepare financial statements usually for external users, primarily to meet tax regulations and legislations. Internal reports, on the other hand, are under-represented or non-existent. This means that accounting information is insufficiently used in decision-making processes and management of small and medium-sized enterprises. The more intensive explanation of internal reports could intensify financial position and business performance. They are one of the prerequisites for long-term growth and development of enterprises. In that sense, the importance of financial statement analysis needs to be stressed. Principal tools and techniques of financial statement analysis are well recognized. However, financial statement analysis is certainly not confined to horizontal and vertical analysis. Financial ratio analysis is of extreme importance. They are widely accepted in business practice of large companies, primarily because of the simplicity of its calculation and use. Bearing that in mind, the subject matter and objective of this paper is to indicate the trends and dynamics of some of the most important financial ratios of financial position and business performance of SMEs in the Republic of Croatia. Based on the obtained results, the quality of business performance will be evaluated for this important economic discipline.*

*Keywords: financial ratios, business quality, small and medium-sized enterprises*

### Introduction

Small and medium-sized enterprises (SMEs) are considered to be a separate but very important economic discipline. SMEs are a very important part of any country's economy due to their numerosity. That confirms the fact that there are over 20 million SMEs in the European Union; that is 99,8% of the total number of active entities (European Commission, 2008). The same situation is recognized in Asia and Pacific, where SMEs make up 97% of the total number of entities. In the USA that percentage is even higher 99,70%. (Klikovac, 2006).

Small and medium-sized enterprises are frequently confronted with the numerous market and statutory challenges. According to the survey results (IFAC, 2011.) 29,4% SMEs find the economic uncertainty as the highest business challenge. It is followed by statutory burdens (27,1%), difficult fund access (16,7) etc. As a result of unpredictable business environment, business management has become more complex, especially for smaller enterprises. However, despite those challenges, SMEs have some advantages unlike

those of the large ones. They can timely and easily suit any changes and be more flexible answering the challenges than the once of more complex organisational structure. Professional literature offers numerous and interesting advice on improving financial condition and business performance.<sup>19</sup> Quality information is the foundation of all business decision making processes.

Accounting information system is an important source of substantial information that can bring about the improvement of a company's business operations. Basic tasks of accounting are primarily gathering and processing primarily the financial data as well as presenting the accounting information to different categories of users. Financial reporting presents the final step in the accounting information system with the goal to provide information to all interested users regarding the financial condition, business performance and cash flows. The needed information can be found in the basic financial statements. SMEs are obliged to prepare financial statements as well. Some former research draws attention to the fact that the majority of SMEs prepare their financial statements primarily to fulfil their statutory obligations, while the managerial aspects remain insufficient or not-existent. The paper shows the relevance of the principal tools of analysis, especially ratios, towards the improvement of the quality of business decision making.

### Information requirements and SME's financial reporting

The users of financial statements have an influence in determining the form and the structure of financial statements (figure 1). That influence is not only considered as an accounting evidence, but also as the accounting position in the entity. With regard to their position, users of accounting information fall into two categories: internal and external users. Traditionally, it is believed that accounting information is prepared for meeting the needs of shareholders, creditors, suppliers, customers, governments and their agencies which are known as external users. On the other hand, there are information prepared to satisfy the needs of management, employees and other internal users. Internal users in the first place are interested in the growth and development of the entity. In that sense, the information differs from the one the external users need. Internal users need managerial information. External financial reporting is focused on the wider range of users and provides them with summarized and factual values. Internal oriented accounting deals with detailed information and concentrates on both planned (forecasting) and factual values. Those reports are generated by internal rules and expected to present certain parts of business.

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<sup>19</sup> Detaljnije vidjeti IFAC (2011) *How to Make Your Small Practice a Big Success: Practice Management Tips for SMPs*. IFAC: Small and Medium Practices Committee.

**Figure 1. Interrelation between users and decisions generated on financial statements**



Source: Adjusted as quoted in, D., Britton, A., Jorissen, A. (2007) *International Financial Reporting and Analysis*, 3<sup>rd</sup> edition. London: Thomson Learning, pp 218.

The objectives of financial statements are usually focused on satisfying users' information demands which means providing them with quality information for the decision making process. Needless to mention, there are certain specific and potential constraints of SMEs' financial reporting. SMEs have the same obligation of preparing financial statements as the large entities. Hence, they are usually not obligated to prepare a complete set of financial statements. Most often, they are committed to prepare the balance sheet, profit and loss account and notes to the financial statements. Nevertheless, numerous SMEs do not present any internal reports, neither those that are concerned with historical values or those with forecasting information. Those reports often do not show enough detailed information. They are mostly prepared annually, although monthly or quarterly reporting would be more useful. Previous surveys indicate that most of the SMEs prepare their financial statements for taxation purposes only. In addition, the majority of SMEs present just the basic financial statements that are required by some accounting regulation. Only a few of them use that information for the purpose of liquidity, solvency, activity, economy or profitability analysis. Based on that information, the users of financial statements could obtain information about the past and current financial position, identify the current financial problems and predict the future business trends. Anyway, it would be very useful to analyse their financial statements additionally. It is important to find out the SMEs' main financial condition and performance ratios in order to further investigate the features and dynamics of their values over a longer period of time.

## Financial statements as the basis for ratio analysis

Business growth and successful development of an entity should be based on quality business information. In that sense, financial statements are the unavoidable source of information of the financial position, performance and cash-flows.

The most significant financial statements that we should take into account when examining the entire business quality and make decision for the future are (figure 2):

1. balance sheet
2. income statement or profit and loss account
3. cash flow statement
4. statement of changes in equity

**Figure 2. Financial statements**



The balance sheet is the fundamental financial statement that represents company's financial position and is the basis for estimating the security of business. Basic elements of balance sheet are assets, liabilities and owners equity. The structure of assets, liabilities and equity is especially important, together with the correlation and interdependence of assets, liabilities and capital. In the context of business quality, besides financial condition, efficiency of business is also very important. We usually define efficiency of business as an ability of achieving specific goals. Business goals can be different and that means that efficiency of business depends on a set of principles and defined goals. Business profitability is the most often stated goal. If we understand efficiency in this way it is measured by profit and loss account. While balance sheet represents the financial position in a particular moment, income statement (or profit and loss account) represents company's performance for a particular time period. Basic elements of this statement are: income, expenses and their difference which can be profit or loss.

It is not unusual that the company according to the profit and loss account has successful business; business with the profit but, at the same time has problems in meeting current liabilities. It is possible because revenues and expenses are accounting categories and many times they can be distinguished from cash receipts and cash expenditure. According to that, while measuring business performance, besides balance sheet and profit and loss account, we need to use cash flow statement and statement of changes in owner s equity as well. The cash flow statement contains the information about cash receipts and cash expenditure as well as about their difference, that is, the cash flow. Statement of changes in owner s equity shows all transaction which refers to profit or loss for a particular time period.

In order to improve the usage of financial information in the context of the decision making process, we need to analyze financial statements. In that context, we can describe financial statement analysis as the process where we convert data from financial statements into usable information for business quality measurement by different analytical techniques, which is very important in the process of rational management. Therefore, to know the current level of business quality is very significant in the context of future business management, since we try to ensure company's development and existence on the market. Financial statement analysis comes before the management process that is before the process of planning which is the component of the management process. Planning is very important for good management. Good financial plan has to consider all company's strength and weaknesses.

The task of financial statement analysis is to recognize good characteristics of the company so that we could use the most of those advantages, but also to recognize company's weaknesses in order to take corrective actions. Because of that, we can say that management of the company is the most significant user of financial statement analysis.

In the process of financial statements analysis it is possible to use the whole range of different instruments and procedures. First of all, it considers comparative financial statements and the horizontal analysis procedure together with structural financial statements and the vertical analysis procedure. By horizontal analysis which is based on the comparative financial statements we try to examine the tendency and dynamics of changes of particular basic financial statements positions. We estimate business efficiency and security of the company on the basis of observed changes. On the other hand, structural financial statements are the base for vertical analysis which allows insight into financial statement structure. Financial statements structure is very significant in the context of business quality.

By financial statement analysis we get acquainted with the business quality, but the questions of the analysis are not solved by horizontal and vertical analysis procedures of balance sheet, profit and loss account and cash flow statement. In the context of measuring business quality on the basis of financial statements, the most significant are different financial ratios formed from basic financial statements.

### Financial ratios application in assessing small and medium-sized entities' business quality

The quality business indicates a safe and successful business. Different financial ratios are used to evaluate the financial condition and performance. Although, there is not a definite list of financial ratios to be used, it is important to interrelate two values of the same kind. The given values would only than be meaningful. Financial ratio analysis provides answers to several questions: is the entity primarily financed by foreign sources of assets, do the customers pay promptly and in accordance with the contracted agreement, are the operating costs too high and do they endanger the long-term stability and business performance (VSBDC, 2004). The significance of certain financial ratio differs depending on the information needs of the users (table 1). Creditors are interested in the information regarding due payment of their loans and the interest. Liquidity and solvency of their clients are of their primary concern. Equity investors (shareholders) are concerned with long-term profitability and financial condition. From the management's point of view, the use of financial ratios, as the relative magnitude of two or more



selected numerical values taken from financial statements, can contribute to their decision making process. The strategic orientation of an entity, its environment and the regulatory framework, competition and the branch of industry are of significant importance in understanding and proper interpreting the financial ratios.

**Table 1. Ratio analysis and their users**

USER	RATIO	WHAT IT MEASURES	WHAT IT TELL YOU
OWNERS	Return on Investment (ROI)	Return on owners' capital. When compared with Return on return on asset, it measures the extent to which financial leverage is being used for or against the owner.	How well is this company doing as an investment?
	Return on Asset (ROA)	How well assets have been employed by management.	How well has management employed company assets? Does it pay to borrow?
MANAGEMENT	Net Profit Margin	Operating efficiency. The ability to create sufficient profits from operating activities.	Are profits high enough, given the levels of sales?
	Asset Turnover	Relative efficiency in using total resources to product output.	How well are assets being used to generate sales revenue?
	Return on Asset	Earning power on all assets; ROA ratio broken into its logical parts: turnover and margin.	How well has management employed company assets?
	Average Collection Period	Liquidity of receivables in terms of average number of days receivables are outstanding.	Are receivables coming in too slowly?
	Inventory Turnover	Liquidity of inventory; the number of times it turns over per year.	Is too much cash tied up in inventories?
	Average Age of Payables	Approximate length of time a firm takes to pay its bills for trade purchases.	How quickly does a prospective customer pay its bills?
	Working Capital	Short-term debt-paying ability.	Does this customer have sufficient cash or other liquid assets to cover its short-term obligations?

SHORT-TERM CREDITORS	Current Ratio	Short-term debt-paying ability without regard to the liquidity of current assets.	Does this customer have sufficient cash or other liquid assets to cover its short-term obligations?
	Quick Ratio	Short-term debt-paying ability without having to rely on sale of inventory.	Does this customer have sufficient cash or other liquid assets to cover its short-term obligations?
LONG-TERM CREDITORS	Debt-to-Equity Ratio	Amounts of assets provided by creditors for each dollar of assets provided by owner(s).	Is the company's debt load excessive?
	Time Interest Earned	Ability to pay fixed charges for interest from operating profits.	Are earnings and cash flows sufficient to cover interest payments and some principal repayments?
	Cash Flow to Total Liabilities	Total debt coverage general debt-paying ability.	Are earnings and cash flows sufficient to cover interest payments and some principal repayments?

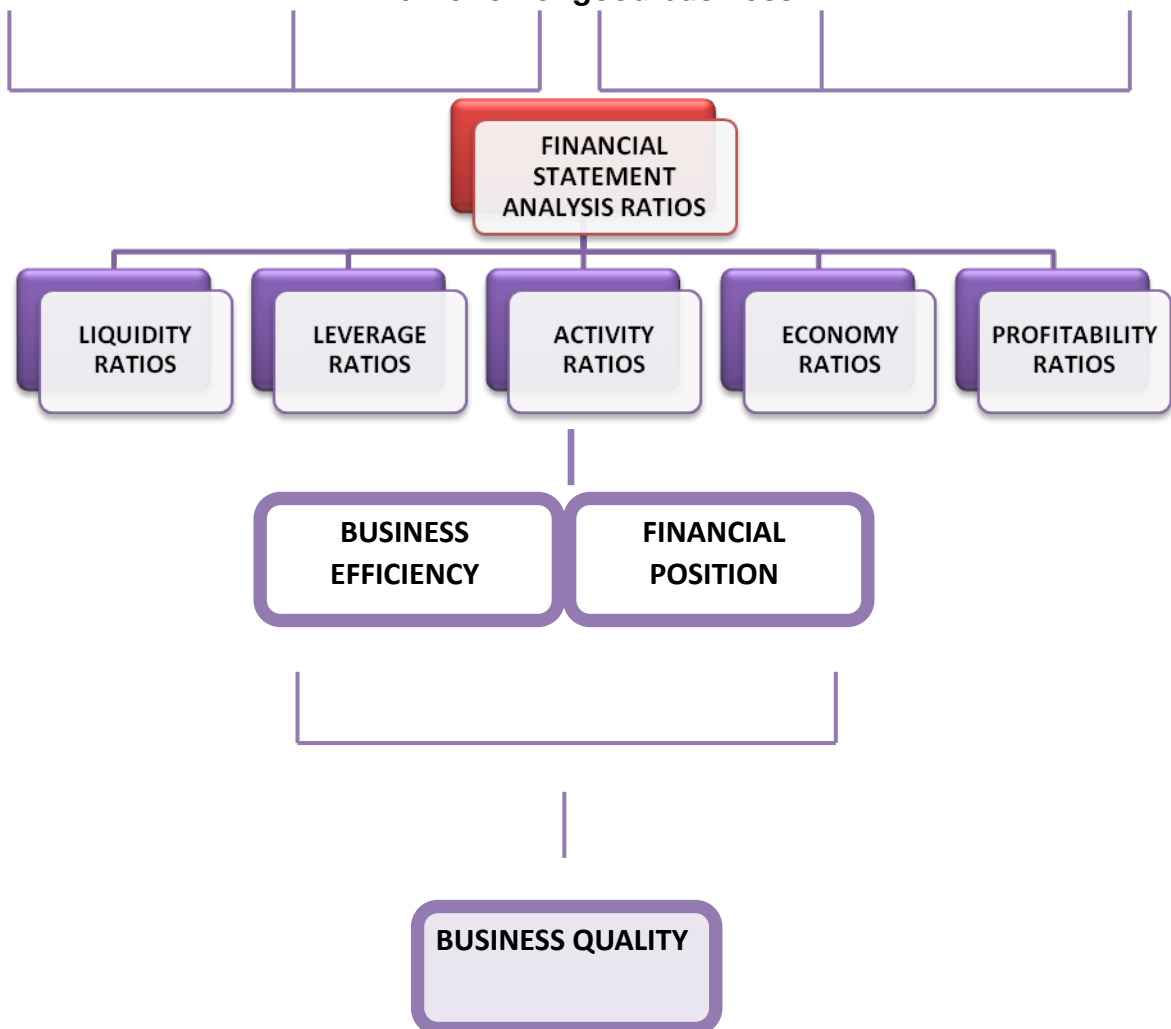
Source: VSBDC (2004) Financial Statement Analysis for Small Businesses; A Resource Guide. Virginia Small Business Development Centre Network, pp 22

Figure 3 and table 2 show several most frequently used financial ratios which are not exclusive in assessing SMEs' business quality (towards Zager et al., 2008). Moreover, analysts calculate some other ratios, other the above mentioned once.

**Table 2: Financial ratios**

RATIO	WHAT IT MEASURES
1. Liquidity ratios	measure company's capability to pay its payable current liabilities
2. Leverage ratios	measure how the company is financed from creditors' resources
3. Activity ratios	measure how efficiently company uses its own resources.
4. Economy ratios	measure relation between revenues and expenses, that is, they show how much revenue is achieved per unit of expenses.
5. Profitability ratios	measure the return of the invested capital and show the highest managerial efficiency

**Figure 3. Correlation between financial statement analysis ratios and basic criterion of good business**



Liquidity and solvency ratios determine the financial position of an entity. On the other hand, the economy ratios, the profitability ratios, and the investment ratios reflect business efficiency. The activity ratios are specific due to the fact that they show the financial position and business efficiency. Namely, the total assets turnover affects not only the financial position but also the profitability.

### Ratio analysis application - Croatian case study

The formulas used to calculate certain ratio blocks are listed hereafter (tables 3-7). To follow, the most important financial ratios of Croatian SMEs for 2009 and 2010 are presented and interpreted. The summarized data disclosed in the financial statements of small and medium-sized entities have been taken in the calculation of financial ratios of SMEs (FINA, 2011). Financial Agency (FINA) is in charge of the Croatian Register of Annual Financial Statements.

Liquidity ratios indicate an entity's ability to pay off its current liabilities when they fall due. Information used in their calculation is taken from the balance sheet (table 3).

**Table 3. Croatian SMEs liquidity ratios**

RATIO	FORMULA	2009	2010
cash to current liabilities ratio	cash / current liabilities	-	-
quick ratio	(cash + accounts receivables) / current liabilities	-	-
current ratio	current assets / current liabilities	1,06	1,04
financial stability ratio	noncurrent assets / (equity+ noncurrent liabilities)	0,96	0,97
working capital	current assets – current liabilities	12.671.209	7.925.155

Cash to current liabilities ratio measures how much cash (the most liquid assets) is available to pay current obligations, if for some reason immediate payment is demanded. The importance of its value, whether high or low, should not be over- or underestimated, due to the fact that the amount of cash, which is taken into the calculation of this ratio, shows only the amount of cash on a certain date – balance sheet date. The amount of cash can be rather high. For instance, it can reflect a consequence of the last minute cash inflow. Therefore, a quick ratio is a better liquidity measure. It is generally accepted that this ratio should be 1 and or higher. If the ratio is 1 the receivables and cash equal the amount of current liabilities. The current ratio is one of the most important and widely used measures of liquidity. The entity should have current ratio greater than 2 in order to retain the entity's good financial health and to avoid financial difficulties regarding not payment of due current liabilities. When it comes to the Croatian SMEs, a certain margin of safety is present. That confirms that their current ratio is slightly above 1. However, taken into account that Croatian small and medium-sized enterprises are mostly trading companies and that they usually do not have a significant amount of noncurrent assets, it can be concluded that their liquidity certainly should have been higher. Working capital is very popular and widespread measure of liquidity. Its absolute value would not bear any significance for the comparative analysis of entities of different size. The financial stability ratio should also be computed in order to determine the long-term aspect of liquidity protection. The value of this ratio, which is lesser than 1, indicates that in the Croatian SMEs only a smaller portion of current assets is financed by long-term sources. Towards all the above presented ratios, some difficulties in ensuring a proper liquidity on a global level need to be emphasized. If liquidity ratios are calculated for every single entity, the management of that entity can get the valuable information concerning the liquidity and the potential financial difficulties.

Solvency ratios represent the structure of sources of assets and relate the various components of sources – capital and liabilities - to each other or to their total. Own sources of assets are presented through the invested and earned capital (equity). In case an entity does not have enough of its own resources, it raises capital from creditors, investors, etc.

**Table 4. Croatian SMEs solvency ratios**

RATIO	FORMULA	2009	2010
liabilities to assets ratio	(current + noncurrent liabilities) / total assets	0,72	0,73
equity to asset ratio	equity / total assets	0,28	0,27
liabilities to equity ratio	(current + noncurrent liabilities) / equity	2,54	2,74
time interest earned	(income before interest and taxes) / interests	-	-
debt factor	(current + noncurrent liabilities) / (retained earnings + depreciation)	-	-

Table 4 lists solvency (leverage) ratios. The first three ratios illustrate static solvency since they project the structure of assets and sources of assets at certain date. Dynamic solvency can be presented by the time interest earned and the debt factor. Those ratios take into account an entity's ability to settle fixed charges and principal repayments. The time interest earned ratio indicates the extent to which the gross profit is available to meet interests. The higher the ratio, the lesser the solvency. The debt factor indicates the number of years needed to pay liabilities from the retained earnings and depreciation. The results reported in table 4 show that the Croatian SMEs are primarily financed by creditors, investors etc. (73% in 2010). The short-term borrowing is slightly higher than long-term one.

Activity ratios depict the number of times a company's assets are revolved during a given time period. The greater the ratios, the shorter the assets conversion period. Among a block of ratios the most frequent ratios are the total assets turnover, the current assets turnover, the accounts receivable turnover and the inventory turnover (table 5). When it comes to the values of ratios or the recommended thresholds for these ratios there is no general rule although the turnover ratio should aim at being as high as possible.

**Table 5. Croatian SMEs activity ratios**

RATIO	FORMULA	2009	2010
total assets turnover	total income / total assets	0,64	0,58
conversion period of total assets	total income / current assets	1,48	1,36
accounts receivable turnover	sales / receivables	3,29	3,09
collecting period for accounts receivables	365 / accounts receivable turnover	111	118
inventory turnover	sales / inventory	-	-
conversion period of inventories	365 / inventory turnover	-	-

The turnover ratios measure the efficiency of the entity's resources utilization. The conversion periods of a certain type of assets are based on the turnover ratios. For example, the inventory turnover reflects the number of times an inventory is converted (sold or used) during a year. As presented in table 5, the turnover ratios of Croatian SMEs

have a downward trend which implies an upward trend of the conversion periods of total assets as well as the collection period for accounts receivables. An average collection period for accounts receivables is higher than 100 days thus having a negative influence on the liquidity in the Croatian economy.

Economy ratios relate income to expenses and measure how much income is earned per expense. Successful business entities cover their expenses by income. As a result the entity earns profit. The most common economy ratios are listed in table 6. Only the total economy ratio is calculated since only summarized financial data are available for conducting the research of Croatian SMEs. The SMEs had negative consolidated financial result in 2010. in contrast to 2009.

**Table 6. Croatian SMEs economy ratios**

RATIO	FORMULA	2009	2010
total economy ratio	total income / total expenses	1,01	0,99
operating economy ratio	operating income / operating expenses	-	-
finance economy ratio	finance income / finance expenses	-	-
extraordinary economy ratio	extraordinary income / extraordinary expenses	-	-

Profitability ratios draw attention to the return on investment capital. The most important profitability measures are the return on total assets, the return on equity and the profit margin (table 7).

These ratios can be calculated as net or gross ratios depending on the tax amount. Profit margin shows net income i.e. profit per total income, while the return on assets presents net income i.e. profit per total assets. Equity investors (shareholders) are primarily interested in the value of these ratios. According to the research results, a very low percentage of profitability ratios is evident in Croatian SMEs in 2009. Since SMEs had a consolidated loss in 2010, all the profitability ratios are negative. Those ratios should not be generalized for all the SMEs, because, fortunately, there are SMEs which had earned profit in 2010.

**Table 7. Croatian SMEs profitability ratios**

RATIO	FORMULA	2009	2010
net profit margin	(net income + interest expense) / total income	0,39%	-2,11%
gross profit margin	(gross income + interest expense) / total income	1,38%	-1,08%
net return on total assets (ROA)	(net income + interest expense) / total assets	0,25%	-1,22%
gross return on total assets	(gross income + interest expense) / total assets	0,88%	-0,63%
return on equity (ROE)	net income / equity	0,87%	-4,56%

Ratio analysis is a very popular management instrument. One of the reasons is their simplicity in indicating business strengths and weaknesses. However, there are some inherent limitations of financial ratios' application in the evaluation of SMEs' business. (Alexander, Britton i Jorissen, 2007; SBDCN, 2004). First of all, financial statements do not comprise qualitative, nonfinancial information, such as the quality of product and service or the customer satisfaction. Although such information cannot be found in the financial statements, similar conclusions can also be drawn with the usage of tools and techniques of financial statements analysis. Finally, needless to say that, financial ratios are a very useful tool for business analysis, but they have to be used properly.

## Conclusion

Small and medium-sized enterprises have been the most important part of the economy of every country. SMEs management requires quality information. The financial statements are a significant source of information used in business governing and business quality evaluation. The business quality of the entire company can be measured and examined on the basis of financial statements. From the external users' point of view, financial statements are the fundamental base for measuring of business quality of an entity. In that context we examine true and fair presentation of financial position, business efficiency and cash flow. A successful business is the business operation that results in the corresponding level of security and efficiency of business over a longer period of time. Financial position is examined, first of all, on the basis of a balance sheet. The efficiency is measured on the basis of the profit and loss account. The data from the cash flow statement needs to be considered in order to get a more complete picture about business quality. The condensed statement of financial position and efficiency of business is registered by financial ratios. Accordingly, financial ratios can be examined in the context of measuring business quality. Different ratio values define different levels of business quality. Some significant presumptions for the future development and existence of the company can be made by defining the current business quality rate. This is important for all enterprises, especially for SMEs.

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