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Editorial

This is the Special Issue of the International Journal of Sales, Retailing and Marketing dedicated for publication of the best papers that have been presented on the 9th CIRCLE Conference that took place between 11th and 13th of April, 2012 in Santa Eulalia, Ibiza.

Due to the large amount of high quality papers in the field of publication the issues 2, 3 and 4 will present only papers from the Conference.

We are also inviting you to join 10th CIRCLE Conference that will be held in Porto next year. Top academic researchers, practitioners and a lot of good time are guaranteed.

Eleven papers published in this issue cover wide variety of topics and represent academics from Taiwan, Czech Republic, United Kingdom, Lithuania, Hungary, Romania, Germany and Croatia.

The articles cover the core theories, empirical researches, essential research tools expanding the existing knowledge base about topics in retailing and marketing and we hope that they will be read and cited in the future investigations and relieves dealing with this area.

Until then we are working diligently to have the journal indexed in the respected data bases.

We wish you an enjoyable reading!

Editors

VALUE-BASED-MANAGEMENT – A CRITICAL LITERATURE REVIEW

Valentin Beck & Bernd Britzelmaier

Abstract

Value-based Management (VBM) has attracted considerable interest among numerous organizations and academics in recent years. The latest decline in stock price performance and increasing globalization of capital markets imply that there is increasing competition for the favours of investors. Therefore, many organizations are now applying value-based management tools to increase shareholder value, and to address the concerns of their stakeholders in a holistic way. From the academic point of view, value-based management is not a new issue. One of the most important proponents of it, Rappaport, introduced the concept of creating shareholder value back in 1986. This was the basis for further contributions, for example by Stern, Stewart and Co. and The Boston Consulting Group, with their performance indicators such as Economic Value Added (EVA®) and Cash Value Added (CVA). Large multinationals, including Coca Cola and Briggs & Stratton, have successfully implemented value-based management strategies and are satisfied with the results. However, critics argue that the value-based management aim of creating value for shareholders is a drawback in itself as it could promote quality in business at the cost of price and performance. The aim of this paper is to give a critical overview of the status quo of value-based management in the literature, and to discuss critically the most important works in this field. This paper will show the research gap affecting value-based management used in enterprises, and will suggest avenues for future research.

Keywords: Shareholder value, Value-based management, VBM, Value

Introduction

Value-based Management (VBM) is necessary to cope with the increasing challenges resulting from globalization and deregulation of the capital markets, accompanied by the changing activities of shareholders. As Bötzel and Schwilling (1998) point out, shareholders nowadays comprise – to an increasing degree – institutional investors who demand rises in share price and distribution. The aim of every management section is to consistently maximize the value of the company by building risk-adjusted return on invested capital. These requirements place strong pressure on the firms' management. At the same time the company has to succeed in the international

markets and therefore has to increase its investments. Pressure of competition is increasing and capital has to be constantly procured.

Consequently, VBM has attracted considerable interest among numerous organizations and academics in recent years. The latest decline in stock price performance and the increasing globalization of capital markets imply that there is increasing competition for the favours of investors. Therefore, many organizations are now applying value-based management tools to increase shareholder value, and to address the concerns of their stakeholders in a holistic way. However, creating shareholder value is not the inevitable goal of managers, nor their “top priority” (Young and O’Byrne 2000, p. 4), as they do not own the company they manage. This leads to another problem, the

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development of the Market for Corporate Control, where share packages and company shares can be purchased in order to gain control over a company's policies and management. According to Hagenloch (2007), a management which is not able to sufficiently create shareholder value, is exposed to the risk of replacement. This leads to increased pressure on managers to deliver value and "provide necessary diagnostic tools" (Young and O'Byrne 2000, p. 13). Günther (2004) found out that at least this pressure created the grounds for competition between management and potential investors about the conceptions of VBM.

From the academic point of view, value-based management is not a new idea. One of the most important proponents of it, Rappaport (1986, 1995), introduced the concept of creating shareholder value back in 1986. This was the basis for further contributions, for example by Stern, Stewart and Co. (1999) and The Boston Consulting Group (2002) with their performance indicators such as Economic Value Added (EVA[®]) and Market Value Added (MVA). Large multinationals, including Coca Cola and Briggs & Stratton, have successfully implemented value-based management strategies and are "satisfied with the results" (Young and O'Byrne, 2000, pp. 13). However, critics argue that the value-based management goal of creating value for shareholders is a drawback in itself as it could promote quality in business at the cost of price and performance. Martin et al. (2009), for example, point to the fast increase in value-based management methods up until the early 2000s in many major companies, especially in the United States. A turning point came with the accounting scandal following the Enron bankruptcy. The authors highlight the illegitimate connection between Enron and value-based management; as implementing VBM principles would have prevented the collapse because the accounting strategy known as mark-to-market is decidedly not part of value-based management.

In Europe, a greater emphasis on manufacturing performance measurement developed to an increasing interest in value-based management methods. This started with the development in US-American corporate practice and was

originally reported in widely cited books containing papers by leading researchers from North America and Europe (Bruns and Kaplan, 1987; Kaplan, 1983, 1990; Ittner and Larcker 2001, p. 356). Since the beginning of the 1990s, corporate value has become increasingly important to the alignment of corporate governance. The interest in shareholder value has moved into the foreground of target systems of organizations. Maximization of equity value has become the main monetary target factor (Pape 2004, pp. 37; Hahn and Hintze 2006, p. 38).

The aim of this paper is to give a critical overview of the status quo of value-based management in the literature, from its appearance in the mid-1980s until the present day, and to discuss critically the most important works in this field. The paper will show the research gap concerning value-based management used in German automotive enterprises, and will suggest avenues for future research.

The paper will present the two main contradictory approaches of shareholder value and stakeholder value. It will demonstrate that these different conceptions, which have been created by consulting groups to differentiate their services, are either modifications of Economic Value Added (EVA[®]) and Cash Value Added (CVA) (which are residual income measures) or rate-of-return measuring methods, such as cash flow return on investment (CFROI), using a distinctive approach to valuation, performance measurement and incentive compensation.

According to this differentiation, the exploration will analyse the various publications on value-based management on a theoretical basis, and will critically discuss the problem areas and "adjustment screws", as well as implementation. It will show the research gap which results from the differences in theory and practice. The suggestions for future research will include a modification of the actual VBM-model.

Theoretical Basis of Value-based Management
Significance of VBM

Typically, managers are confronted with the task of optimizing the allocation of scarce resources. However, the importance of the

issue in question, how to measure and persistently maximize the value of an organization, has increased significantly in the last 20-30 years. In this period, the economic and social environment has constantly changed so that those who are responsible for management accounting and who have management control functions are provided with new challenges.

As it turns out, the traditional management concepts, which are based on accounting earning measures and therefore do not take into account the risk notion, the impacts of inflation, or opportunity costs, are no longer sufficient (Stern Stewart & Co., 1999). These metric systems do not reflect the real value creation (Ameels et al., 2002). The inefficiencies of the traditional (from the management accounting viewpoint) concept of control systems result from the behavioural shortcomings mentioned in the agency theory.

The principal agency theory as developed by Jensen and Meckling (1976) and Fama (1980) describes, as a model, the acts of people in hierarchies and describes the design of contracts. The protagonists are connected by a contractual connection which creates a dependence on the agent from the principal who delegates special competences to the agent to realize his interests. The theory explains the relation between the protagonists, which is characterized by an asymmetry of information. The behaviour of both principal and agent is determined by their self-interest and preferences, and both parties aim to maximize their own benefits. Thus, the principal and agent are in a conflict of interests.

In our case, the shareholders would be the principal, while the manager would be the agent. The shareholders' goal is for the contract to be fulfilled to their optimal benefit by the management. On the other hand, the manager's goal is to perform in such a way that he can gain his own profit (Britzelmaier, 2009, p. 19). With regard to the enhancement of the value of an organization, the principal agency theory is not sufficient because creating shareholder value is not the inevitable goal of the managers, nor their "top priority" (Young and O'Byrne, 2000, p. 4), as they do not own the company they manage.

Recognizing this problem, the need for an integrated management tool has arisen in order to establish congruence between the objectives of the agents and those of the principals of the organization. VBM systems are considered to reduce this lack of goal congruence (Ameels et al., 2002, p. 5 + 6).

Development of VBM

On the basis of an empirical study, Peters and Waterman (1982) stated that organizations do not necessarily create a financial benefit, and therefore value, for their shareholders, even if they generate outstanding value of traditional indicators, such as rentability of total capital, equity and return on sales as well as growth of total assets. Their conclusion was to give treatment recommendations for the improvement of management. Rappaport (1986) chose a different path by considering how to determine the value of an organization and of its respective parts, and to integrate this value into the goals of management. Rappaport developed a shareholder-value-concept which contained ideas of finance and capital-market theories. This was the first approach to a value-based controlled management, and is still valid. This has been the basis for further contributions, for example by Stern, Stewart and Co. (1999) and The Boston Consulting Group (2002) with their performance indicators such as Economic Value Added (EVA[®]) and Cash Value Added (CVA). Nowadays, value-based management is one of the key philosophies of management. Large companies, such as Siemens AG and Bayer AG in Germany, have implemented the concept in practical terms (Britzelmaier, 2009, p. 11 + 12).

Definition

So now that we have stated that VBM is a tool to reduce the lack of goal congruence between the objectives of the management and those of the shareholders of the organization, we have to find a definition of VBM as a basis for our examination of the status quo of its application in the literature, and must discuss critically the most important works in this field.

Rappaport introduced the issue of creating shareholder value back in 1986. Generally speaking, VBM is a management control system that measures and supports the creation of net worth to help investors assess companies and

help executives evaluate business performance and shareholder value (Olsen, 2002, p. 286). To achieve this goal it is necessary to create value. The value of a company is determined by its discounted future cash flows (Koller, 1994, p. 87). Therefore, companies must earn returns on invested capital that exceed the cost of capital to create value for their shareholders (Ameels et al., 2002, p. 5).

The leading thinkers, aside from Rappaport, who have written books and research papers on VBM, are Morin and Jarrell (2001), as well as Martin and Petty (2000). Morin and Jarrell (2001, p. 3) define VBM as a framework “for targeting those business decisions that constantly add economic value” to a company and that filters out the facts of the variety of approaches of managing a corporation.

Martin and Petty (2000, p. xiii and pp. 4) consider VBM as a synthesis of multiple business disciplines and subjects, such as finance, business strategy, accounting and organizational behaviour. From the financial perspective, the goal of VBM is to create shareholder value along with acceptance of the discounted cash flow valuation paradigm. Furthermore, from the point of view of business strategy, VBM is “a result of investing in market niches or opportunities where the firm has some comparative advantage over current and potential competitors” (Martin and Petty (2000, p. xiii). VBM influences the basic structure of the firm’s accounting statements and modifies them for its own purposes. Overall, from the organizational behaviours perspective, VBM constitutes a measurement and reward system, “designed to encourage employees to focus their activities on the creation of shareholder value” (Martin and Petty (2000, p. xiii).

According to Koller “Value-based management can best be understood as a marriage between a value creation mindset and the management processes and systems that are necessary to translate that mindset into action. Taken alone, either element is insufficient. Taken together, they can have a huge and sustained impact (Koller, 1994, p. 89)”.

Approaches to VBM

In practice, various VBM concepts have been designed to measure management’s success in achieving shareholder value (Young and

O’Byrne, 2000, p. 4). The differences between these approaches or processes of measurement to VBM result from the metrics used to determine value and enhancement of value of an organization. VBM measures are generally based on a comparison between corporate market value and corporate accounting book value and / or on the residual income measure (Bromwich, 1998). Thus, we have to distinguish between the shareholder approach and the stakeholder approach.

Shareholder Approach

Shareholder value in this general sense means the owner value that will be increased and maximized by the assistance of management (Hagenloch, 2007).

Because of the existing variety of alternative possible uses of capital on the international capital markets, insufficient development of corporate value, and consequently shareholder value, carries the danger that the management will not be able to create the required capital in the future so that the shareholders will remove the existing capital (Hagenloch, 2007). Therefore, the goal of VBM is to identify potential value, to measure, and to realize the sustainable value of the corporation. The basic concept to transpose this goal of increasing value has to be directed to value-creation. In this context, VBM can be interpreted as the alignment of all corporate activities on creating added value for the shareholders (Dahmen / Oehrich, 2001, p. 15).

The shareholder approach describes the output or outcome of VBM. This includes the above determined definition, that VBM is “essentially a management approach whereby companies’ driving philosophy is to maximize shareholder value by producing returns in excess of the cost capital” (Simms, 2001). Spencer and Frances (1998) have investigated the position frequently taken by supporters of VBM, and in the process have adopted a metrics-based approach to measuring VBM strategy-related outcomes. Following this approach, Ronte (1998) adds that VBM is “a framework for measuring and, more importantly, for managing business to create superior long-term value for shareholders that satisfies both the capital and product markets.”

According to the shareholder approach, VBM is focused on the simple objective of creating “real” shareholder value.

Stakeholder Approach

On the other hand, the interest in stakeholder approaches to strategic management is also growing in literature (Mills and Weinstein, 2000; Young and O’Byrne, 2001). This literature follows the conviction that the value creation process is only possible with the support of the different stakeholder groups. Ameels et al. (2002, p.11) summarize this discovery as follows: “Despite the fact that the objectives of the different stakeholder groups do not always converge, they realize that working together to realize the multiple goals of the firm is the only way to reach some of their own objectives.”

According to this view, there is no alternative stakeholder approach in the sense of “in opposition to” the shareholder approach. However, there are an increasing number of publicists claiming that the shareholder value maximization principle can only be consistent with the shareholder interests if it does not neglect the other stakeholder groups and the emphasis on the competitiveness of the organization (Mills and Weinstein, 2000).

The proponents of the stakeholder approach typically focus on a combination of the process of VBM as a framework of analytical tools and processes to increase (shareholder) value. Young and O’Byrne (2001) point to the fact that more top managers now recognize the pressures that exist in deregulated markets to deliver ever-increasing profits. They state that this problem can only be solved by adopting new performance metrics to track management’s success in creating value for shareholders and to motivate employees to work in a way that is consistent with the overarching goal of value creation. At least, the metrics to measure VBM are “at their most basic level” all designed to measure management’s success in achieving this aim (Young and O’Byrne, 2001, p.4).

Following this point of view, Black et al. (1998) state that VBM can be “all embracing. It aligns strategies, policies, performance, measures, rewards, organization, processes, people, and systems to deliver increased shareholder value.”

On this basis, VBM is a management approach that puts shareholder value creation at the centre of the company philosophy. The maximization of shareholder value is the objective of the firm, and is the concept that directs its systems, strategy, structure and processes, analytical techniques, performance measurements and culture (KPMG Consulting, 1999).

Thus the performance measurement system of VBM must be tied to compensation of the investors (Martin and Petty, 2009). Strategic planning, performance measurement and compensation have to be integrated so that the focus is on the strategic and financial management processes of the whole organization.

A holistic approach demands even has to go beyond and take into account the inputs of VBM, as well, but only a small number of references that define inputs, processes and outputs of VBM can be found. According to the Institute of Management Accountants (1997) VBM is defined as: “An approach to management whereby the company’s overall aspirations, analytical techniques and management processes are aligned to help the company maximize its value by focusing management decision-making on the key drivers of shareholder value.”

Distinctive features of VBM

According to the above-mentioned understanding, shareholder value quantifies the strategic global goal of corporate long-term livelihood security by providing a key performance indicator which interprets a monetary image of all potentials of success. The construction and extension of potentials of success and the underlying factors of success are sustained by cost management. To maximize value, costs have to be identified and reduced. The term of cost drivers, i.e. the factors that determine costs, therefore have to be extended to all value drivers (Hagenloch, 2007).

From the viewpoint of VBM conceptions, the important value drivers are especially those in the field of capital costs. Capital costs must be understood as the costs that a corporation incurs to gain capital, which is the rate of return of making capital. A return on equity which

exceeds this minimal requirement of covering capital costs can be interpreted as a capital gain of the investors, and thus as added value (Hagenloch, 2007; Britzelmaier 2009, pp. 69).

VBM exceeds traditional cost management and includes a mixture of management approaches. According to Ameel et al. (2002), the distinctive features of VBM can be summarized as follows:

Management:

VBM is a management control system that is used to integrate resources and tasks towards the achievement of stated organizational goals.

Approach:

VBM is a way of carrying out an activity or a set of activities that propagate its values all over the organization.

Maximizing shareholder value:

VBM's purpose is to generate as much net worth as possible. Maximization also implies a forward vision, based on expected outcomes.

Application of VBM

VBM in Practice

The main topic of this literature research is to investigate the status quo of VBM in the literature, on the above-mentioned theoretical basis of VBM. For this reason we have to evaluate the various publications on VBM in terms of how they describe the different measurement systems.

Lueg and Schaeffler (2010) analysed 120 empirical studies on VBM in order to put the diverse findings on the application of VBM methods into perspective, and to provide avenues for future research. They found "that meaningful hypothesis tests have been impaired by the narrow scope of data sets as well as methodological misspecifications" (p. 1). On the basis on this analysis, Lueg and Schaeffler (2010) categorized studies into four streams of research, employing factor analysis and cluster analysis, and derived guidelines to improve the hypothesis testing of future studies on VBM. Of the three research questions, the first is of main interest for our literature research. This question concerns the classification of different streams of research in empirical VBM literature to identify relevant VBM performance studies. Lueg and Schaeffler (2010, p. 29) identified four streams of research employing factor analysis and cluster analysis:

Cluster 1: Pragmatic Classifiers

The studies categorized in this cluster neither use an objective performance measure nor investigate VBM broadly. This research design is sociology-orientated and is mainly used in research in the German language. Achleiter and Bassen (2002) e.g. state that VBM adoption among organizations has increased, but there remains a gap in application in the areas of cost of capital, incentive systems, segment analysis and corporate culture. Fischer and Rödl (2005a, 2005b), Fischer and Wenzel (2004), as well as Homburg et al. (2004), confirm that compensation is still not linked to VBM. Fischer and Wenzel (2004) found that there are different ways of reporting on value drivers. Many, especially mid-sized organizations, do not apply VBM because they lack knowledge about it (Günther and Gonschorek, 2006). Some research found that although VBM is adopted, its application is too simplistic (KPMG, 2000). Kirchhoff Consult (2002, 2004) found that reporting VBM information must be improved in the areas of decision usefulness of VBM information, description of VBM, corporate governance, and the value orientation of strategy. Pellens et al. (1997, 2000a, 2000b) also conclude that VBM adoption and VBM reporting have increased significantly over the years, but gaps still remain in the areas of investment decisions, cost-of-capital calculation, in the use of value-orientated performance indicators and incentive-systems, and integration of key performance indicators with the key financial ratio. Pricewaterhouse Coopers (1998), a large consultancy group, consider that ratios used in connection with VBM are often not value-orientated. In summary, Lueg and Schaeffler (2010) have categorized 44 studies in cluster 1.

Cluster 2: Correlation Testers

Cluster 2 contains studies that make extensive use of capital market data. However, on average, they analyse the breadth of VBM less broadly than Cluster 1. Like most of the practitioner-oriented studies of cluster 2, these are mainly Anglo-Saxon (approximately 70%) and their designs are more economics-focused than the "Pragmatic Classifiers" of cluster 1. Lueg Schaeffler (2010) categorized 53 studies focusing on the VBM metrics such as Economic Value Added (EVA®), Cash Value Added (CVA)

and Cash flow Return on Investment (CFROI). Most of these studies in cluster 2 only investigate the relationship between corporate performance and the existence of the development of a key financial ratio within the respective organizations.

The most popular papers in this cluster are the papers of Biddle et al. (1999), Wallace (1997) and Kleiman (1999), which are the most often cited studies in this sample of Lueg and Schaeffler (2010, p. 22). According to Biddle et al. (1999) EVA® does not dominate net income in associations with stock returns but it can still be useful as managers respond to residual-income-based incentives. However, those organizations that adopted EVA® as the basis for a total management and incentive compensation system, have experienced increases in stock performance, operating performance and divestments (Kleimann 1999). According to Wallace (1997), the application of VBM in incentive plans can change managerial behaviour. "Executives increase dispositions of assets and decrease their new investment, increase their payouts to shareholders through share repurchases, and use assets more intensively (Lueg and Schaeffler, 2010 p. 38).

Young and O'Byrne (2005) found that compensation effects from VBM are positive for managers receiving stock options. Cash Value Added (CVA) correlates with stock returns, and the drivers are beyond capital returns, such as external economic factors (customer value added) and internal value-drivers (investment growth and fundamentals) (Stelter 1999, 2000, 2001; Stelter and Xhonneux, 2002, 2003). The Cash flow Return on Investment (CFROI), on the other hand, correlates with abnormal returns. The most important value drivers are return on equity, growth, and strategic acquisitions (Sinn et al. 2003, 2004, 2005).

Cluster 3: System Analysts

Cluster 3 according to the categorization of Lueg and Schaeffler (2010, p. 22-23) is called "VBM-System Analysts" and includes studies based significantly more on academic sources compared to other clusters (approximately 40% of the studies), and that investigate thoroughly the sophistication of VBM, but do not use objective performance measures. None of these studies triangulates subjective performance

with objective data. Lueg and Schaeffler (2010) have counted 19 German and English-speaking studies in that category. The cluster 3 studies include Besanger et al. (2001) who claim that in practice, not all value-driver-analysis sufficiently captures all operational levels. Also Fischer et al. (2001; Fischer and Wenzel, 2005) belong to this category with some of their studies, announcing that organizations have broadly adopted value-oriented incentive systems but do not sufficiently report on VBM, strategy and non-financial value-drivers, so that web-based investor-relations have less information content than audited financial statements.

KPMG Consulting (2003) states that VBM is increasingly applied but there are still significant differences across the organizations. They confirm that gaps in application include incentive systems, investor relations, operationalization throughout the organization, and lack of consistency in performance indicators. However, according to Marr (2005), fully implemented VBM positively influences corporate performance.

Cluster 4: Performance Measurers

The cluster 4 group of studies is called "Performance Measurers". The researches both thoroughly investigate the sophistication of VBM (like cluster 3) and make use of objective performance data (as in cluster 2). Lueg and Schaeffler (2010, p. 23, 29) conclude that this type of study design is best at meeting the normative requirements put forward by VBM-proponents with regard to empirical studies, because these studies are best performance studies for performance tests and after all, come closest to what VBM advocates would deem a sufficient test of their hypothesis that VBM increases performance.

As Lueg and Schaeffler (2010, p. 23 + 24, 29) remark, only four studies of the overall 120 analysed studies are in cluster 4. Regarding the fact that VBM is broadly adopted by organizations, this small number of studies indicates that the claim of the proponents of VBM that a full implementation "objectively" increases performance has seldom been tested. "Only these four studies have investigated most variables that would be necessary to make a profound statement in the first place, provided the reader relies upon the criteria brought

forward by the creators of VBM" (Lueg and Schaeffler, 2010, p. 23 + 24). Thus, the fact, that cluster 4 contains only four studies, suggests the need for further research to improve understanding regarding the performance effects of VBM.

Shareholder Value-Approach

Let us now focus on several of the most important approaches to VBM, their methodological basis, especially the components of the VBM formula, and discuss them critically, beginning with Rappaport (1986), who introduced the issue of creating shareholder value and laid the foundation for further contributions to this field of study.

Methodological Basis

The shareholder-value approach (SHV), according to Rappaport, was developed to guarantee that managers actually behave in the interests of the shareholder (1986, pp. 33). Traditional systems of formal preferment measurement, which mainly depend on financial accountancy information, have not been able to meet this purpose fully. The performance indicators of those traditional systems have been used for goals they were not designed for and for which they were not appropriate (e.g. forward-looking strategic planning). In its original understanding, the term "shareholder-value" describes the economic value of equity of a corporation and sets the increase of value from the view of the investor as its main objective (Bischoff, 1994, pp. 88). Performance is measured in terms of the economic value that is created for the shareholders.

SHV, according to Rappaport, is determined by the method of discounted cash flow (DCF). "Free cash flow" is "the amount of cash flow left over from the company's operating activities after expected investments have been made" (Young and O'Byrne, 2001, p. 24). The economic value of a corporation has to be understood as the aggregate value, which consists of the economic value of the total capital (the investments in equity and foreign capital) and which corresponds to the economic value of total assets (current assets plus fixed assets). SHV can also be equated with the arithmetical market value of equity. The economic value of a corporation using the DCF

method can be calculated by investigating the prospective free cash flows. Future cash flows are discounted using a discount rate determined by the cost of capital of this specific company, and are added up (Klien, 1995, p. 27).
Formula

To derive the SHV from the calculated economic corporate value, one has to subtract the value of debt from the corporate value. As part of the DCF method we have to differentiate between the equity approach and the entity approach.

The equity method is an individual assessment approach, used to directly determine the value of equity in a net process. To measure the return requirement of shareholders the DCF method uses the classical Capital Asset Pricing Model (CAPM). The future cash flow to equity is discounted with the risk-adjusted return on challenge of an indebted corporation. According to Baetge et al. (2005) the market-value of equity is described as follows, where FTE_t^{EK} stands for the earnings value of flow to equity in the period t:

$$EK^{MW} = \sum_{t=1}^{\infty} FTE_t^{EK} \cdot \frac{1}{(1+r_{EK}^V)^t}$$

To simplify this formula, value is described by Young and O'Byrne (2001) as follows:

$$\text{Value} - t = \sum_{t=1}^{t-n} \frac{CF_t}{(1+r)^t}$$

The risk-adjusted return on challenge is combined of the risk-free interest rate basis and a premium for the assumed risk. The risk premium takes into account both the operative risk, as well as the risk that is caused by the capital structure. Equity is measured in a special time period, in which measurement is based on a constant or constantly growing value. The free cash flow for any period is calculated on the basis of EBITDA, which means earnings before interest, taxes, depreciation and amortization:

EBITDA

Depreciation and amortization

Taxes

Net operating profit after tax (NOPAT)

+ Depreciation and amortization

Capital expenditures

Changes in the working capital requirement
(WCR) = Free cash flow

In a time period model, based on a constant value, where the working capital requirement is stable over the life of the project, free cash flow

can be measured as follows (Young and O'Byrne, 2001, p. 25):

	Year 1	Year 2	Year 3	Year 4	Year 5
EBITDA	\$ 600	\$ 650	\$ 700	\$ 750	\$ 800
Capital Expenditures					
Changes in the WCR					\$ 1.500
Free cash flow	(\$ 2.500) \$ 600	\$ 650	\$ 700	\$ 750	\$ 2.300

The entity method, on the other hand, determines the total corporate value and is used to evaluate the corporate value indirectly as a difference between the market-value of total capital and the market-value of debt. There are three variations of the entity method: WACC (Weighted Average Cost of Capital): The specific periodical cash flows are the discounted weighted cost of capital. The formula to determine the aggregate value, according to Hagenloch (2007), is shown below, where FCF_t describes the cash flow of the single periods and k_{WACC} the weighted cost of capital:

$$UW = GK = \sum_{t=1}^T \frac{FCF_t}{(1+k_{WACC})^t}$$

TCF (Total Cash flow):

This method is similar to the WACC-approach and differs from it by additionally considering the tax shield in the total cash flow. Therefore, the tax shield may not be considered in the weighted cost of capital. So we achieve the following formula (Britzelmaier, 2009, p. 106), where TCF_t is the total cash flow in period t and k_{TCF} describes the weighted cost of capital:

$$GK^{MW} = \sum_{t=1}^{\infty} TCF_t \cdot \frac{1}{(1+k_{TCF})^t}$$

APV (Adjusted Present Value)

In this approach the total capital is measured in components. In the first step the market value of an assumed non-indebted corporation (r_{EK}^u) is determined and discounted by simply considering the equity cost rate. The second component includes a separate measurement of the valuable contribution of financing, namely the worth of debt. Set into a formula, the gross corporate value (UW) is determined as follows (Hagenloch, 2007, p. 105 + 106), where V^u describes the value of the indebted corporation (self-financing) and V^s the value of tax advantages according to rata debt financing (tax shield):

$$UW = V^u + V^s$$

The single components V^u and V^s apply to:

$$V^u = \sum_{t=1}^T \frac{FCF_t}{(1+r_{EK}^u)^t} \text{ and } V^s = \sum_{t=1}^T \frac{TS_t}{(1+i)^t}$$

The size of the tax shield for one period is obtained by:

$$TS_t = s \cdot i \cdot FK_{t-1}$$

with TS_t as an indicator for the tax shield in this period and FK_{t-1} standing for borrowing stock at the beginning of period 1.

Thus the market-value of the total corporate value is:

$$UW = \sum_{t=1}^T \frac{FCF_t}{(1+r_{EK}^u)^t} + \sum_{t=1}^T \frac{s \cdot i \cdot FK_{t-1}}{(1+i)^t}$$

Critical comment

The central request of the SHV approach is to transform the strategic planning into a single value-orientated key performance indicator. For this reason the SHV analysis uses different types of forecasts to convert expectations of a future strategy into a financial metric. The difference with traditional financial indicators systems is that DCF methods consider the time value of money by discounting the future free cash flow in a multi-period measurement to its actual state value. So the free cash flow model is characteristically a forward-looking theory.

The advantage of SHV is that it discounts the future cash flow and takes investment risks into account. However, there is a clear disadvantage of SHV, which stems from the fact that value cannot be described in one single key performance indicator. As Young and O'Byrne (2001, p. 28) state, "value-creating behavior requires more than the proper methodology for valuing capital investments. It also requires performance measurement and incentive compensation systems that make managers

responsible for seeking out and implementing positive NPV projects as well as for realizing the economic benefits promised by those projects". Residual income measures (EVA[®] and CVA) Based on this criticism of the SHV approach, the method has been further improved by the residual income measures, applied by Stern, Stewart and Co. with their performance indicators Economic Value Added (EVA[®]), and The Boston Consulting Group with their concept of Cash Value Added (CVA). EVA[®] and CVA are value-orientated and measure the monetary difference between the return on a company's capital and the cost of the capital (Young and O'Byrne, 2001, p. 5). Unlike the pure SHV approach, the key issue in EVA is not the corporate value in itself, but whether the corporation has created value.

Methodological Basis

EVA[®] is used to measure the overall creation of value in a corporation (Stern Stewart & Co., 1999, p. 4). EVA[®] measures the results through adjustments to the data of external accounting and provides practical applications that operating managers can use. Thus EVA[®] is "the true measure of performance" (Stern, Stewart and Co., 1999). According to Stern et al. (2002), the definition of EVA[®] is "operating profits less the cost of all the capital employed to produce those earnings", and therefore represents the excess profit, or what is otherwise called residual profit. It is a single-periodic method to measure valuable contributions to the corporation, used at divisional levels, and for investment decisions. If the residual profit of one period is positive, the corporate value has increased and therefore a profit has been gained – an achievement which exceeds the requirements of shareholders and investors (Britzelmaier, 2009).

To achieve these measures, profit has to be calculated taking account of NOPAT (net operating profit after taxes) and the capital costs as a product of the calculated total cost of capital and NOA (net operating assets). Thus, EVA[®] is calculated as follows (Young and O'Byrne 2002, p. 35):

$$\begin{aligned} & \text{Net sales} \\ & \text{Operating expenses} \\ = & \text{Operating profit (or earnings before} \\ & \text{interest and tax, EBIT)} \end{aligned}$$

Taxes

$$= \text{Net operating profit after tax (NOPAT)} \\ \text{Capital charges (Invested capital x Cost of capital)}$$

$$= \text{EVA}^{\circledR}$$

Formula

In short, EVA[®] can be described in the following capital-charge formula:

$$\text{EVA}^{\circledR} = \text{NOPAT} - \text{WACC} \times \text{net assets.}$$

It has to be considered that the EVA[®] concept is a single period model which determines the created economic value added in the given period after covering the cost of capital. This EVA[®] concept can be integrated into a corporate valuation model by adopting the market value added concept (MVA) which connects the period viewing point with the market value added. All EVA[®]s are discounted to their present value and added (Hostettler, 1998). MVA is defined as the sum of the discounted EVA[®]. One has to add the invested capital to receive the corporate value as a result (Stern, Stewart and Co., 1999).

If the MVA is maximized, the excess return is maximized as well. So, as long as the maximization of MVA is expressed as a goal for a proposed investment or strategy in a special determined point in time, it is entirely equivalent to the maximization of excess return (Young and O'Byrne, 2001, p. 41 + 42).

To increase EVA[®] and thus increase shareholder value, a corporation has to achieve increased returns on existing capital (RONA = the return on net assets) or profitable growth. Thus, value is created when an investment is expected to earn returns greater than the WACC. It is also possible that invested capital may decrease, but the reduction in capital is more than compensated for by improvement of the spread between RONA and WACC. Value can also be created, when it is expected over longer periods to earn a RONA which is greater than WACC. Reductions in the cost of capital also create EVA[®] (Young and O'Byrne, 2001, p. 68).

To summarize, EVA[®] increases the spread between return on net assets and the cost of capital, multiplied by invested capital. The implied value spread formula is:

$$\text{EVA}^{\circledR} = \text{RONA} - \text{WACC} \times \text{net assets.}$$

Critical comment

EVA® can easily be implemented in a corporation because of its precise and concentrated representation of key performance indicators. Therefore, EVA® seems to be a meaningful tool for performance measurement in single periods. But this can only be confirmed if the impacts of the driving factors which have led to an EVA® are regarded from the point of view of total investment. EVA® in a particular period can only be judged as positive if it is not created at the cost of increasing value in the following period. Hence, the main criticism of EVA® is that it may not be useful to estimate a multi-periodical based corporate value from a one-period EVA®. The EVA® method is conducted on the basis of incomplete future information and there still remains uncertainty about the necessary projections of future free cash flow, respectively EVA®, about determination of the residual value, and determination of capital cost rate (Bischoff, 1994). Because of this uncertainty of prognosis, managers have significant discretion, and it can be assumed that this discretion is not always used in the best interests of the company. A possibility for manipulation arises from the mixed application of accounting policy choice and scope for valuation, concerning the core sizes NOPAT and Net Assets.

Cash flow Return on Investment (CFROI)

The Boston Consulting Group (BCG) stated in 1991, that profit-orientated indicators show a weaker correlation to creating value in a capital market than cash flow-orientated indicators. They assumed a lack of capital market orientation of profit-orientated indicators. Statements of cash flows have to be taken into account as well. Therefore, they developed a more stakeholder-orientated concept of cash flow on return on investment (CFROI). The original concept was complemented by a second model in 1998. Nowadays, the CFROI concept is the most adopted VBM concept apart from the EVA® (Britzelmaier, 2009, p. 145).

Methodological Basis

The reasons for shifting to a stakeholder approach are the new political and economic

opinions on deregulation, finance, time horizons, and the wisdom of corporate leaders (Pfeffer, 2009, p. 2). According to Pfeffer (2009), recent studies have shown that a company's gains in profitability and productivity are achieved by implementing high-commitment work practices, such as "investing in training, decentralizing decision making, and especially by gaining benefits from customer loyalty and high levels of customer satisfaction" (Pfeffer, 2009, p. 5).

CFROI is similar to the long-term internal rate of return, calculated by dividing inflation-adjusted cash flow by the inflation-adjusted cash investment (BCG, 1991). The CFROI is considered to be an important indicator to describe the average discount on total investment capital on valuation time.

The original CFROI concept is a special application of the internal rate of return method. The model calculates the discounting of the bound capital in a corporation. It assumes an initial outlay (gross investment basis), a constant gross cash flow, and liquidation proceeds which equate to the assets that are not depreciable according to the plan. According to Lewis and Lehmann (1992), the entire company is regarded as an object of investigation.

Formula

CFROI is the interest rate determined on the basis that the gross investment basis equates to the discounted gross cash flows plus the discounted liquidation proceeds of the non-depreciable assets. The formula of CFROI for determining capital value is as follows (Britzelmaier, 2009, p. 147):

$$0^I = \text{BIB} + \sum_{t=1}^n \frac{\text{BCF}}{(1+\text{CFROI})^t} + \frac{\text{NAA}}{(1+\text{CFROI})^n}$$

Assuming a constant gross cash flow, the formula for determining capital value is as shown below (Britzelmaier, 2009, p. 147):

$$0^I = \text{BIB} + \text{BCF} \left[\frac{(1+\text{CFROI})^n - 1}{((1+\text{CFROI})^n \cdot \text{CFROI})} \right] + \frac{\text{NAA}}{(1+\text{CFROI})^n}$$

According to the internal rate of return method, the net present value equation is set at 0. There are several methods to solve this equation. In practice, the approximate solution is mainly

used, according to the second radiation rate (Britzelmaier, 2009, p. 147).

The weakness of this original CFROI concept is that it is not dynamic. The data of a single period are transformed into a dynamic multi-periodical model and are retroactively applied to a single period by application of the internal rate of return method. But the gross cash flows are constantly assumed so that a financial dynamic does not occur effectively.

The BCG replaced this seemingly dynamic by considering a period of time. According to this new concept, CFROI is measured in the following formula (Britzelmaier, 2009, p. 156), whereas "Brutto Cash flow" BCF (gross cash flow), "Bruttoinvestitionsbasis" BIB (gross investment basis) and "ökonomische Abschreibung" (depreciation) are calculated on the basis of the original CFROI concept, as shown above:

$$CFROI_{\text{mod}} = \frac{\text{Brutto Cash Flow (BCF)} - \text{ökonomische Abschreibung (öA)}}{\text{Bruttoinvestitionsbasis (BIB)}}$$

The problem is that CFROI is a static indicator which is related to a single period. According to the MVA as a component of EVA[®], the BCG developed a modified method to describe the size of capital gain or exceeding capital gain. This so-called Cash Value Added method (CVA) adds into the equation the rentability of a period (CFROI) in comparison to the required Weighted Average Cost of Capital (WACC) and multiplies this by the difference with the gross investment basis. Thus, the total accretion of value of the determined period can be gained (Britzelmaier, 2009, p. 163):

$$CVA = (CFROI - WACC) \times BIB.$$

The core of this indicator is similar to EVA[®] which describes the capitalization of rentability that exceeds the capital costs. However, unlike EVA[®] the CVA method is not aimed at the profit-orientated size, but at the cash flow.

Critical comment

An advantage of the CFROI method is that it is not based on accounting material but on cash flow sizes, which are more appropriate for comparing the value of corporations. Thus it is independent of inflational changes in the economy. The disadvantage of CFROI is its retrospective point of view in measuring capital costs, as well as the known disadvantages of the

internal rate of return method. Another weakness of this method is the use of constant cash flows and the simplification of the measurement of return.

The fact that there are several variations of CFROI causes great uncertainty in implementation and application as they all lead to different results. The impact of future decisions cannot be described by the single-period model so there remains the risk of realizing short-term gains at the expense of long-term corporate activities.

Critical Review

The VBM concepts as shown in the literature review above, apply either residual income-type metrics, such as EVA[®] and CVA, or take an equity-spread approach. The disadvantage of residual income-type metrics are the main shortcomings of these VBM concepts. Important circumstances such as inflation or the wrong choice of periodization are ignored, as well as the ambiguous empirical relation with market-based measures, such as MVA. The equity-spread approach applies a return-based, single-period measure that uses "the same variables as the market to book ratio" (Ameels et al., 2002, p. 63, 64). Cash flow return on investment and shareholder value added (CFROI) on the other hand is a multi-period perspective. With this method, both managers and security analysts of corporations can be evaluated. But it is in practice a complex financial measurement device.

However, all theories seem to use either a single or a multi-period measure. But in the long run it is necessary to consider both the short- and the long-term effects of VBM. The application of single period key value drivers can only match the shareholder value orientation if capital costs are taken into account.

Research Gap

The models of VBM expose a number of gaps and inconsistencies, such as the lack of integration between financial and managerial accounting research. These fields have been treated as independent in the past, but there are arguments for integrating financial and accounting research in a holistic approach. Black et al. (1998) and KPMG Consulting (1999) state that the value driver analysis should not

only influence the choice of action plans and the design of control systems, but should also affect external disclosure requirements.

These choices of value-based management literature are compliant with financial accounting literature, which calls for greater disclosure of information on key value drivers (American Institute of Certified Public Accountants, 1994 and Wallmann, 1995).

Moification of VBM

Research Gap

The models of VBM expose a number of gaps and inconsistencies, such as the lack of integration between financial and managerial accounting research. However, the majority of empirical studies support these associations, as mentioned above (Ittner and Larcker, 2001).

These fields have been treated as independent in the past, but there are arguments for integrating financial and accounting research in a holistic approach. "These frameworks help focus managers on performing better. Regardless of whether one of these tools has been implemented, the other two should be considered. Managers perform best when they have the information, decision frameworks, performance measures and rewards that motivate them to behave like owners. It is important to have a good strategy, but it is just as important to have managers who are motivated to execute the strategy and produce results" (Stern Stewart & Co., 1999, p. 5.).

Black et al. (1998) and KPMG (1999) state that the value driver analysis should not only influence the choice of action plans and the design of control systems, but should also affect external disclosure requirements.

These choices of value-based management literature are compliant with financial

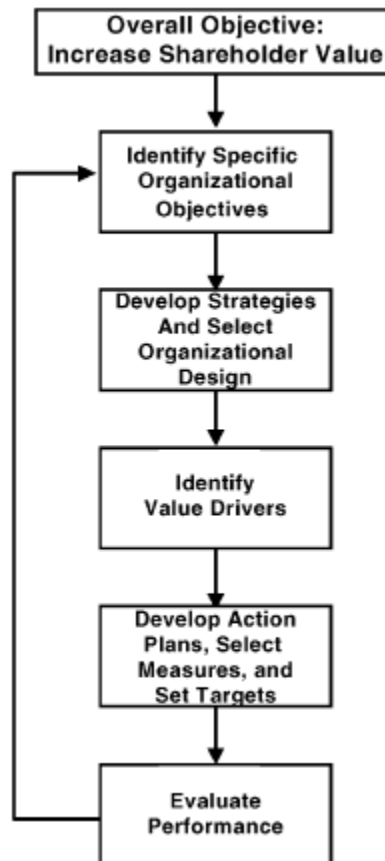
accounting literature, which calls for greater disclosure of information on key value drivers (American Institute of Certified Public Accountants, 1994 and Wallmann, 1995).

Deduction

Therefore, there is a need to offer suggestions for future research. Components of a modified, holistic value-based management program can best be described by building a framework that includes components of other conceptual models, such as the contingency theory, which is a behavioural theory that claims that there is no best way to organize or lead a corporation and to make corporate decisions. Another method can be used and put into the framework, namely the economics-based organizational design framework, supplemented by the balanced scorecard process (Ittner and Larcker, 2001, p. 402).

The overall objective of such a VBM framework is to increase shareholder value. According to this purpose, in general, the VBM framework includes six steps (Ittner and Larcker, 2001, p. 353):

- Choosing specific internal objectives,
- Selecting strategies and organizational designs,
- Identifying the specific performance variables, or "value drivers",
- Developing action plans, selecting performance measures, and setting targets,
- Evaluating the success of action plans and conducting organizational and managerial performance evaluations
- Assessing the ongoing validity of the organization's internal objectives, strategies, plans, and control systems in the light of current results, and modifying them as required.



(VBM Accounting framework, according to Ittner and Larcker, 2001, p. 353)
Categorization

A general VBM conception affects five levels of an economic cooperation. According to Hannig (2007), the different levels can be categorized as follows:

Level 1: Objective

Determination of the general relevance of VBM as a corporate goal.

Level 2: Strategy

Development and definition of steps and measurements to achieve this determined goal.

Level 3: Key numbers and Key Performance Indicators

Selection and determination of adequate value-orientated metrics

Level 4: Management process

Focusing management processes on the determined value-orientated key numbers.

Level 5: Operative decisions

Alignment of operative activities to the corporate value

The specifications of these five levels of categorization will be realized on the basis of

the analyzed studies and the criticism of the described theories in this paper.

Conclusion

The concepts of VBM in literature, as shown above, are not sufficient to capture all possible varieties of value measurement in a particular corporation. However, the value drivers which are considered in the VBM concept have to refer to the actual corporation that is being explored. In addition, it is necessary to take the long-term view. It is most important to recognize that performance management and target setting are the main elements of a VBM process, and that they interact with each other.

The shareholder value approach was originally designed to control managerial behaviour. But there are other conceivable incentive systems which are financially adequate and able to ensure and support decision-makers, namely the shareholders, who are the owners of the enterprise (e.g. participation in the process of increasing corporate value), as shown by Hagenlocher, 2007 and 2005.

Decisions of the management have to take into account their effects on corporate value. Therefore, it is necessary to integrate a managing system of improving corporate value into an organizational concept, including an accounting and control system. A VBM concept has to integrate the objectives of the shareholder, and therefore it affects their strategic and operative management process.

There are strong relations that have to be considered between VBM and the processes of organization, accounting and controlling. To enable a permanent implementation of VBM into the organization of a corporation, it is necessary to connect individually the financial determinants of value with the qualitative value drivers. A consistent system to determine valuation connects equally the key performance indicators with the performance indicators on the strategic and the operative levels, and must be installed on all levels of the corporate organization.

For this reason, the internal and external accounting and control systems, such as external disclosure requirements and greater

disclosure of information on key value drivers, must be integrated. "Without greater integration of financial and managerial accounting research, our understanding of the choice and performance implications of internal and external accounting and control systems is far from complete" (Ittner and Larcker, 2001, p. 402).

As this paper has shown, avenues for future research can be developed from a general modified VBM conception which will be discussed on the basis of expert interviews with economic authors. This survey of experts will analyze the status quo of the various conceptions of value-based management and investigate the problem areas of the current VBM conception, as well as empirical data of the interviewed experts.

The most important objective is to formulate ideas and proposals for a better integration of the internal and external accounting and control systems, such as external disclosure requirements and greater disclosure of information on key value drivers.

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REGIONAL PORTFOLIO MODEL OF THE CROATIAN TOURISM PRODUCTS

Ivana Pavlic, Doris Perucic & Ivona Vrdoljak Raguz

Abstract

The purpose of this paper is to emphasize the importance of the regional portfolio model for the regional tourism development. Therefore research was carried out interviewing experts by survey questionnaire. Regional portfolio model of tourism product development starts from the thesis that tourism region can be something like enterprise that offers several tourism products. For the perceived tourism products strategic options can realize certain benefits that must be identified. In this context, by region, tourism products vary according to their attractiveness, relevance and contribution to the development of the region. The importance of development of individual tourism products by region in Croatia is in this way evaluated. The advantage of this method is relatively quick and cheap determination of the opportunity of considering qualitative moments which are important for the future development of priority products by region.

Keywords: regional portfolio model, tourism products, Croatian Counties, development

Introduction

Many marketing experts in the strategic market products positioning give advantage to the portfolio approach. Application of the portfolio approach on the product development is based on the formulating specific marketing strategy to achieve balanced supply of products that should make long term profits (Dibb, 1995). Namely, the basic model makes the portfolio matrix, which helps to optimize the strategic decision-making.

Some products of the tourism region are more and some are less popular, while for some of the products is expected to have greater importance in the future. In addition, tourism products of the region are in various stages of development life cycle, that indicate need for

different approaches of strategic decision making for different products.

Taking into the consideration the particularities of the development of tourism products, with regard to the peculiarities and diversities in the region, to improve the development it is possible to apply the regional portfolio model of the tourism products by using the basic portfolio model as a background. It must be emphasized that the advantage of applying the portfolio model implies that different products in different ways contributed to the development of the whole region.

Literature review

Business portfolio analysis is widely accepted tool of modern strategic management and represents the technique of formulating organizational strategy based on the philosophy that the organizations should develop strategy as they manage with business portfolio. It would be rational to support the reasonable financial investment, and reject the unreasonable; therefore the appreciable organizational activities should be emphasized, and unreasonable should be put in the background. Applied portfolio matrix helps managers to develop organizational strategy based on

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market share and growth. The first step is to identify the strategic business units in order to develop organizational strategy with the main aim of generating income. In large organizations, strategic unit could be also a product. This technique has failed because it avoids different factors that include different types of risks associated with product development. Beside that it doesn't take into the account the threats caused by different economic conditions and also social, political and environmental influences. In order to avoid mentioned disadvantages of the technique, applying multifactor portfolio analysis is suggested. This improved model helps managers to develop organizational strategy based primarily on market attractiveness and on the business strengths. The matrix is inserted with the two dimensions; industrial attractiveness and business strength. Each dimension is a combination of different factors which must be defined considering the business position. Portfolio models are graphical framework for analyzing the relationship between business organizations and it can also provide concrete policy recommendations (Certo & Certo, 2008).

Business portfolio matrix represents the relationships between growth rates and the relative competitive position measured by market share. The matrix was developed for a large corporation with several separate parts, which are often organized around the strategic business units (Wehrich & Koontz, 1994). Portfolio models are included into the components of the business analysis. The main purpose is to analyze the enterprise business portfolio, based on the position of each strategic business units at the market and on the required investment in certain strategic business units. Portfolio matrix provides managers to select an appropriate products or services, or to choose specific market segments which will result in improved market success (McDonald, 2003).

Management must decide which business to built, maintain or eliminate and which business to add. In financial difficulty due to mounting competition and a portfolio that may have gotten too diverse. In an effort to regain competitive standing in the retail industry, the enterprise shed some of its financial services

and in a surprise move. The business portfolio matrix illustrates two business indicators of strategic importance. The vertical indicator, market growth rate refers to the annual rate of growth of the market in which the product, division or department is located. The horizontal indicator, relative market shares (Ivancevich, 1994).

Available strategic choices can be put in a dynamic context and strategic decision can be reduced to the comprehensive selection process of the action in the long run, with the desired growth rate and desirable level of profit, by analysis of the existing portfolio. An important segment of the portfolio analysis is harmonization of the existing and future enterprise portfolio (Buble, 2005). Portfolio analyses start with examination of the position of the products. They consider the attractiveness of the market and the ability of the business to operate competitively within the market (Proctor, 2000). Portfolio analysis can be used to assess the strength of a business position first by permitting the business to evaluate its products in relation to their market attractiveness then by enabling strategic assessment to made concerning multiple strategic business units and lastly by recommending the investment strategies for each business units based on an assessment of market attractiveness (Aaker, 1992).

In modern business conditions, portfolio model become widely used in many industries and therefore in tourism. In the tourism applying portfolio model can provide great advantages in front of standard evaluation of tourism product. Applying this model uncertainty about the main tourism product in the region can be solved. Namely, decision how to improve the product, which product must be pulled from the market and also strategies for the different tourism product in the region can be based on this model.

Tourism region comprises a portfolio of different tourism offer that contribute in different ways to the mission and objectives for tourism development in the region. This should be seen again the background of the fact that a major purpose of strategic marketing planning is to find adequate ways in which regions can be best used to take advantages of attractive opportunities in the environment (Heat & Wall,

1992). Users of the portfolio models should take into a consideration that different portfolio models sometimes lead to different recommendation. Portfolio models although not frequently used in tourism can indeed be adapted for non profit making organizations in tourism sector (Calantone & Mazanec, 1991). The portfolio models of the tourism markets served by regions are a tools of vital importance for both public and private tourism organizations, since working knowledge of the markets and of the competition faced facilitates decision making regarding the selection of priority marketing segments, the positioning of the destinations and products and a devising of marketing strategies (Aguas, Costa & Rita, 2000) There are a great number of the portfolio matrixes that can be applied. Among them there is a primary portfolio matrix of industrial growth and market share, which has been developed in the 60s of the last century. The Boston Consulting Group, a leading management consulting firm recommended that enterprises appraise each of their products on the basis of market growth rate and the organization's share of the market relative to its largest competitor (Buble, 2005). It is based on product life cycle theory and it was developed in early 70's. This matrix can be used to determine what priorities should be given in product portfolio of a business unit. BCG matrix in practice presents a management tool for reallocating resources to different tasks in order to achieve the final result of favourable market (Kotler & Bowen, 1996). The Boston Consulting matrix has two dimensions and that is market share and market growth. The basic idea behind it is: if products have a larger market share or if product's market grows faster, it is better for the enterprise (Kotler & Amstrong, 2001). This is the first model of portfolio analysis. This model can be applied in tourism and used to analyze tourism market (Heat & Wall, 1992). The simplicity of this model has led many managers to employ multifactor models (Harrel & Kiefer, 1993). The matrix might be difficult and time consuming to obtain and to update and some tourism managers might feel that the effort is not worthwhile (Evans, Campbell & Stonhouse, 2003). This model has lots of disadvantages and among them there are disregard of market dimension, omission the thru level of

competitor activities, referring only to one dimension of market attractiveness, excluding the interrelationship between offerings, failing to recognize that strategic direction also relies on marketing acumen (Lumsdon, 1997).

Applying the BCG matrix in business results in a number of advantages because it helps managers to think strategically and to better understand the business of each individual business units within the enterprise. The largest advantage of applying the BCG matrix in the business of the enterprise is monitoring the cash flow and diverting it to the various types of operations for the optimization of the total portfolio enterprise value (Previšić, 2004). The main deficiency of this model is too simplified two-dimensional approach which is evident from the assumption that a larger market share provides a greater competitive advantage which is not always the case. Then, also it is often pointed out that the rate of market growth isn't the only factor that affects the attractiveness of individual markets. Besides that, there is a problem of measuring market share using this matrix and possibility of implementing the strategy of each unit in the entire business enterprise according it is assumed that each business unit is independent (Walker, 1999). To eliminate the disadvantages of the BCG matrix McKinsey & Company - GE model is applied, which uses a special form of multifactor portfolio matrix that analyzes a enterprise based on strategic business units. Fundamentals of the model dimensions are markets attractiveness and competitive position at the particular market in which each of these dimensions are described with the several factors which are evaluated with the results of performed index (Renko, 2005).

The General Electric matrix is essentially a derivation of the Boston Consulting Group's Boston growth matrix. It was developed by McKinsey and Co. The General Electric matrix cross-references market attractiveness and business position using three criteria for each – high, medium and low. The market attractiveness considers variables relating to the market itself, including the rate of market growth, market size, potential barriers to entering the market, the number and size of competitors, the actual profit margins currently enjoyed, and the technological implications of

involvement in the market. Development of this matrix approach may face certain difficulties with the main area of concern being linked to methodology and the lack of guidelines for implementation of this approach (Abbel & Hammond, 1979). The principal difficulty of this model comes in the weightings of the different variables. When used instance of collaborative marketing, the nature and scope of networks, partnership activity and potential for collaboration and the strength of value chain system could easily represent viable alternatives variables for inclusion in the model (Fyall & Garmond, 2005).

Portfolio model represent an opportunity of providing data by using as much data as needed in order to get in-depth overview of a specific tourism situation. It is to be seen as a strongly user-oriented tool trying to give concentrate answers to specific questions rather than a general information medium (Laimer & Weiss, 2008).

Within any portfolio situation there will always be some product that will be growing while others remain in declining markets. Portfolios are evaluated according to next variables (Middleton, 2001, p. 175): shares of current markets held by own and competitors, perceived market size, growth prospects and product life cycle, cash flow generation, return on investment compared with other mayor competitors strength of competition and knowledge and core competencies developed within an entity that might be utilized in additional directions.

According Harold, portfolio can support the management of the mix of also experimental products offered by or associated with a tourism destination toward the goal of achieving optimal breadth of appeal, while identifying and serving key target markets. This aspect of destination management is particularly important given the consequences for failure to optimize the product mix with the respect to the portfolio of target customer segments that a destination management organization might like to attract to their location (Harold, 2006).

McKercher pointed out that this model is not substitute for gathering other market intelligence information instead it is a tool that can applied to help make sense of the

mountains of information available and contribute more effective marketing , policy and planning activities (McKercher, 1995).

Tourism products policies development includes those management activities of the tourism destinations that are related to the selection of all the elements that implicate the creation of the particular tourism product. Tourism product formation required maximum adjustment to the particular market segment. In that process the life cycle of the tourism product must be taken into the account, considering that the characteristics of the modern tourist is getting shorter and shorter. Therefore innovation and modernization of the tourism product are unavoidable.

Tourism destination at the tourism market offer at least one and usually several tourism products. Each of these products on its own way contributes to the achievement of the objectives of the tourism destinations. In this sense, a set of tourism products can be viewed as a portfolio which is managed by tourism destination. Given that, all tourism products in the portfolio have different meaning and different level of the contributions to the goals of the tourism destination development, need for the periodic assessment of the portfolio of tourism destinations to the proper allocation of resources to individual tourism products is occurred (Stić, 2010).

Assessment portfolio of the tourism destinations can be viewed as a process with the following steps (Križman Pavlović, 2008):

Identification of the tourism destination key tourism products and identification of the portfolio matrix product position;

Tourism destinations portfolio projections from the five to ten years;

Estimation of the portfolio tourism destinations availability;

Research the capabilities of the tourism destinations portfolio expansion.

In this case the model that measures tourism products is using three variables is applied: compliance with the fundamental values of destination development, quality (may be determined by factors such as standardization, uniformity, image, etc., market viability (referring to the past and the future demand for the tourism products of the destinations), provided that each of them can be ranged high,

medium and low value, is applied. Once the position is determined it is necessary to make projections of their position in the future (Cooper, 1998)

Taking advantage of the diversification benefits, management of tourism destinations must be very reasonable in decisions making process about the allocation of financial, human, natural and social resources with respect to its competitors. Portfolio model emerged as an important tool that is used in these cases. These models enable management of tourism destinations to classify and apply current and future tourism products for new entry in competitive action, or to assess the attractiveness of certain market segments (Rocco, 1994).

To improve the tourism product development the destination management must carry out certain activities involving the identification of potential tourism destinations, tourism product supply design, identification of potential beneficiaries of the tourism product, promotion among the target groups of tourism demand, sales, customer satisfaction and monitoring of the tourism product (Berc Radišić, 2009).

The use of portfolio models has produced number of benefits. The models have helped managers of a tourism destination to think more strategically and to better understand the economics of the tourism destination. On the other hand, portfolio must be used cautiously. They may lead destination to place much emphasis on market share growth and entry into high-growth destination to the neglect of managing the current business well. The results are sensitive to the ratings and weights and can be manipulated to produce a desired position in the matrix. Also, the models fail to delineate the synergies between two or more business, which means that making decisions for one tourism product might be risky (Kotler, 1998).

Portfolio model enables strategic tourism planners to portray the relationship between a destination and its markets when insufficient data are available. However, it is a subjective model and there is a greater risk of error being introduced by individuals who may lack objectivity when conducting their analysis. In the regional tourism context, tourism products will vary in their importance and contribution to regional mission. It is also not always possible

to give equal financial, promotional and development attention to all tourism products in the region. Therefore it is important to view the tourism product in the region as a portfolio that periodically should be critically reviewed and evaluated (Fayal, 2005).

Data and methodology

The paper applied the regional tourism portfolio model creating according to Heat and Wall from 1992. The regional portfolio model incorporates three broad dimensions. Regional tourism products can be evaluated on the basis of centrality to the region mission, on the quality of the tourism product strategy and on the market viability. Also, tourism product can be ranked high, medium or low on each dimension. Centrality concerns the extent to which tourism product is directly related to the current mission of the whole region. Quality is a measure of the standard and image of the tourism product. It can be measured in the terms of the offering major competitors. Market viability refers to the extent to which there are present and the future demands for these tourism products in the region (Heat & Wall, 1992).

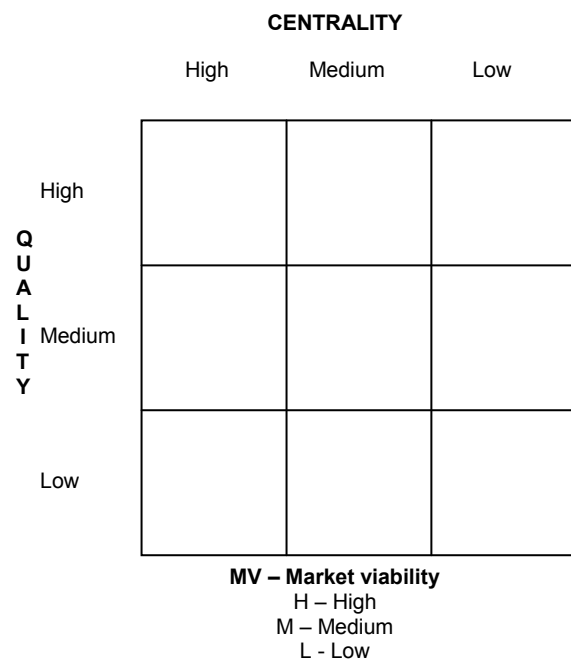


Figure 1. Regional tourism portfolio model
 Source: Heat, E., Wall, G. (1992), Marketing Tourism Destinations, A Strategic Planning Approach, New York, John Wiley & Sons, Inc,

According Kotler, P., Fox, F.A., Strategic Marketing for educational institutions, Prentice Hall, New Jersey, 1985.

In order to identify priority products by each region (Croatian Counties) and with the respect to the quality, centrality and market viability primary data was collected and compiled alongside the collection of secondary data. Empirical research was carried out using a sample survey taken from among 87 Croatian tourism experts. Croatian tourism experts include the persons that directly or indirectly participate in creation of Croatian tourism policy such as Tourism boards (all sectors in every region), Croatian Chamber Economy – tourism department for the every Counties, persons employed at the Ministry of Tourism at the state and local level, persons employed in scientific institutions such as Institute of tourism and Universities that among others are focused on tourism. The survey consisted of data that was gathered via in 2008 and 2009 in Croatian Counties by authors. To confirm some thesis, besides sending the questionnaires, researching by counties was made also by phone. For this research every Croatian County was included. Respondents were asked to range the tourism products in County from 1 to 3 according to the quality, market viability and centrality on a scale: 1 (high), 2 (middle) and 3 (low). In questionnaire ten tourism products were offered to the interviewers. In total, 87 correctly completed and usable questionnaires provided the data for this study.

A survey was made for the purpose of finding out the range of tourism product development by priority. The aim of the research was to define that in Croatian maritime Counties dominant tourism product is still summer vacation product. Statistical analysis, was realized using SPSS package version 17.0

According to that, the goals of the research aimed to prove or reject the following hypothesis:

Dominant tourism product in maritime Croatian Counties is still summer vacation tourism

According the number of priority tourism products by Croatian Counties, new tourism region should be formed.

Results

Zagreb County: In this region there is obvious problem in centrality for four tourism products. Only congress tourism product is high on centrality, but middle market viability and quality. High on quality are cultural and pilgrim tourism products, but there is not adequate centrality. An appropriate strategy would be to adjust development strategy of the primary products to development plan of the whole region. Also there is need to focused on quality of each products. Special attention must be devoted to cultural, pilgrim and rural tourism because there is obvious interest for these products.

Krapina-Zagorje County: This region prefers development of health and rural tourism products and they are judged high on centrality and quality but there is problem with market viability for both products. Therefore there is need to find new market segments for this products. Cultural tourism product and pilgrim tourism are not adequate quality while hunting tourism product is low quality, centrality and market viability. There is need to improve and modify these products, otherwise, will be pulled out from the market.

Sisak-Moslavina County: According the results in this County almost every tourism products are good on centrality. Among them health and hunting are high, rural and cultural are middle on centrality. First position belongs to health tourism product according every evaluation. On second position is rural tourism and on third position is hunting. Problem of hunting tourism is low quality and middle market viability. Therefore there is need to improve quality in this segment of tourism offer. The worst position is sports tourism product with low quality and centrality and middle market viability.

Karlovac County: This region emphasizes sports and hunting tourism products and they are judged high on centrality and quality but there is problem with market viability. Therefore there is need to find new market segments for this products. Cultural tourism product and sports tourism are not adequate quality while health tourism product is low quality, centrality and market viability. There is need to improve

and modify these products, otherwise, will be pulled out from the market.

Varazdin County: In this County four tourism products are good on centrality. Among them health and hunting are high, and pilgrim and sports are middle on centrality. First position belongs to health tourism product according every evaluation. On second position is pilgrim tourism and on third position is hunting. Problem of hunting tourism is low quality. Therefore there is need to improve quality in this segment of tourism offer. The worst position is rural tourism product with low quality and centrality and middle market viability.

Koprivnica-Krizevac County: According this analyzes health product is primary for this region because it is high on every measured category. Rural and pilgrim tourism products are middle in every measured category. The worst position with the middle centrality, but low quality and market viability are sports and cultural tourism products. In this region there is requisite for improving sport and cultural products in quality and also for these products new marketing strategy must be found, otherwise there will not be more tourists interest for those products.

Bjelovar-Bilogora County: This region emphasize hunting tourism product and it is judged high on centrality, quality and market viability. Pilgrim and rural tourism products are not adequate in quality while cultural tourism product is high quality and market viability but isn't good in centrality. Second positioned is health tourism product with middle rating in every category. There is need to improve and modify rural and pilgrim tourism products, otherwise, will be pulled from the market.

Virovitica-Podravina County: Rural tourism product is evaluated high on quality, centrality and market viability. Cultural tourism product although is high on centrality and market viability, this product is low on quality. Hunting tourism is middle on centrality and quality, but low on market viability. Pilgrim and sports product are low at every category. In this region serious attention could be given to modify products such us hunting, sports and pilgrim, while cultural tourism needs to be improved in quality.

Pozega-Slavonia County: In this region there is obvious problem in centrality for each tourism products. At the first position with high quality and middle market viability is rural tourism. Second position is hunting tourism product with middle centrality and quality and high market viability. Third position is cultural tourism product with high market viability, but middle quality and low centrality. Other products are pilgrim and sports tourism, but they are low in quality and centrality and middle in market viability. An appropriate strategy would be to adjust development strategy of the primary products to development plan of the whole region. Also there is need to focused on quality of each products. Special attention must be devoted to pilgrim and sports tourism because there is obvious interest for these products.

Brod-Posavina County: In this County, only sports tourism is high on quality, while development strategies other products are not synchronized with the development strategy of the County. Sports tourism is although high on centrality is low on quality and middle on market viability, therefore, first positioned product in this County is cultural tourism product with high on quality and market viability and middle in centrality. Rural tourism is ranked on second position with middle rating on every category. Hunting and rural tourism although are good in market viability they are low in centrality and quality. There is need to improve hunting, rural and sports tourism in quality.

Vukovar-Srijem County: This region emphasize rural tourism product and it is judged high on centrality and quality, while market viability is middle. Health tourism product although is high positioned on quality there is no adequate development alignment with the development of the whole region. Pilgrim tourism is ranked in each category as middle while cultural and hunting tourism product although are high on market viability they are low on quality and centrality. There is need to harmonize development of the health, cultural and hunting product with the development of the region and also for the rural tourism there is need to improve market viability by changing the current marketing strategy.

Medjimurje County: In this region like in region that is analyzed before at the first position is

rural product. Quality and centrality is in high but market viability is evaluated as middle. At the second position is hunting product with good quality and middle centrality and market viability. Pilgrim tourism is on the third position with every middle category. Cultural and health tourism products are low on quality and centrality with the middle market viability. In this region the attention must be focused on improving the marketing promotion to enhance market viability of each product.

City of Zagreb: According this analyzes congress product is primary for this region because it is high on every measured category. Cultural and health tourism products are middle in every measured category. The worst position with the middle centrality, but low quality and market viability are pilgrim and sports tourism products. In this region there is requisite for improving sport and pilgrim products in quality and also for these products new marketing strategy must be found, otherwise these product will be pulled from the market.

Osijek-Baranja County: This region emphasize cultural and rural tourism products and they are judged high on centrality and quality, hunting tourism product and sports tourism are not adequate quality while health tourism product is middle quality and market viability but isn't good centrality. There is need to improve and modify these products, otherwise, will be pulled out from the market.

Primorsko-Goranska County: According the conducted analysis here, tourism products are low in category of centrality. Sports, nautic and rest on the coast are middle centrality, while naturism and health tourism are low in this segment. High quality products are sports and naturism, while nautic and health products are low in quality. The best market viability positioned are sports and health products. In new strategy development there is need to improve centrality and to find new emitive markets for nautic, naturism and rest on the coast.

Lika-Senj County: In this region there is a great problem in centrality for all tourism products. At the first position with high quality and high market viability is sport tourism. Second position is hunting tourism product with middle centrality, quality and market viability. Third position is cultural tourism product with high

market viability, but middle quality and low centrality. Other products are rest on the coast and health tourism, but there is low quality. An appropriate strategy would be to adjust development strategy of the primary products to development plan of the whole region. Also there is need to focused on quality of each products.

Zadar County: According this analyze nautical product primary for this region because it is high on every measured category. Cultural product although is high on quality and market viability, product strategy is not harmonized to the current mission of the whole region. Rest on the coast is at the middle position considering every measurement category, while sports and health tourism products are low at every category. In this region there is requisite to harmonization of cultural product development with the mission of the region, and also for improving sport and health products in quality and also for these product new marketing strategy must be find, otherwise these product will be pulled from the market.

Split-Dalmatia County: Nautical tourism product is evaluated high on quality, centrality and market viability. Cultural tourism product although is high on centrality, this product is low on quality. Rest on the coast is middle on centrality and quality, but low on market viability. Congress and sports product are low at every category. In this region serious attention could be given to modify products such us congress, sports, rest on the coast, while cultural tourism need to be improved in quality.

Istra County: In this County rest on the coast has better position. Namely, it is high on quality, centrality and market viability. While rural and naturism are high quality, they are low centrality. Nautical and sport tourism product are low quality and market viability. Therefore, there is need to improve quality to these tourism products or direct them to the new tourism markets.

Sibenik-Knin County: In this County nautical and rest on the coast tourism products are high quality, but the rest on the coast is low market viability and centrality, high centrality are nautical and sports tourism products, but sports product is low market viability and quality. An appropriate strategy would be to maintain quality and to concentrate on market viability

by finding a new market segment for the certain products.

Dubrovnik-Neretva County: This region emphasize cultural tourism product and it is judged high on centrality and quality, nautical tourism product and rest on the coast are not

adequate quality while congress tourism product is high quality and market viability but isn't good centrality. There is need to improve and modify a rural, nautical and rest on the coast products, otherwise, will be pulled out from the market.

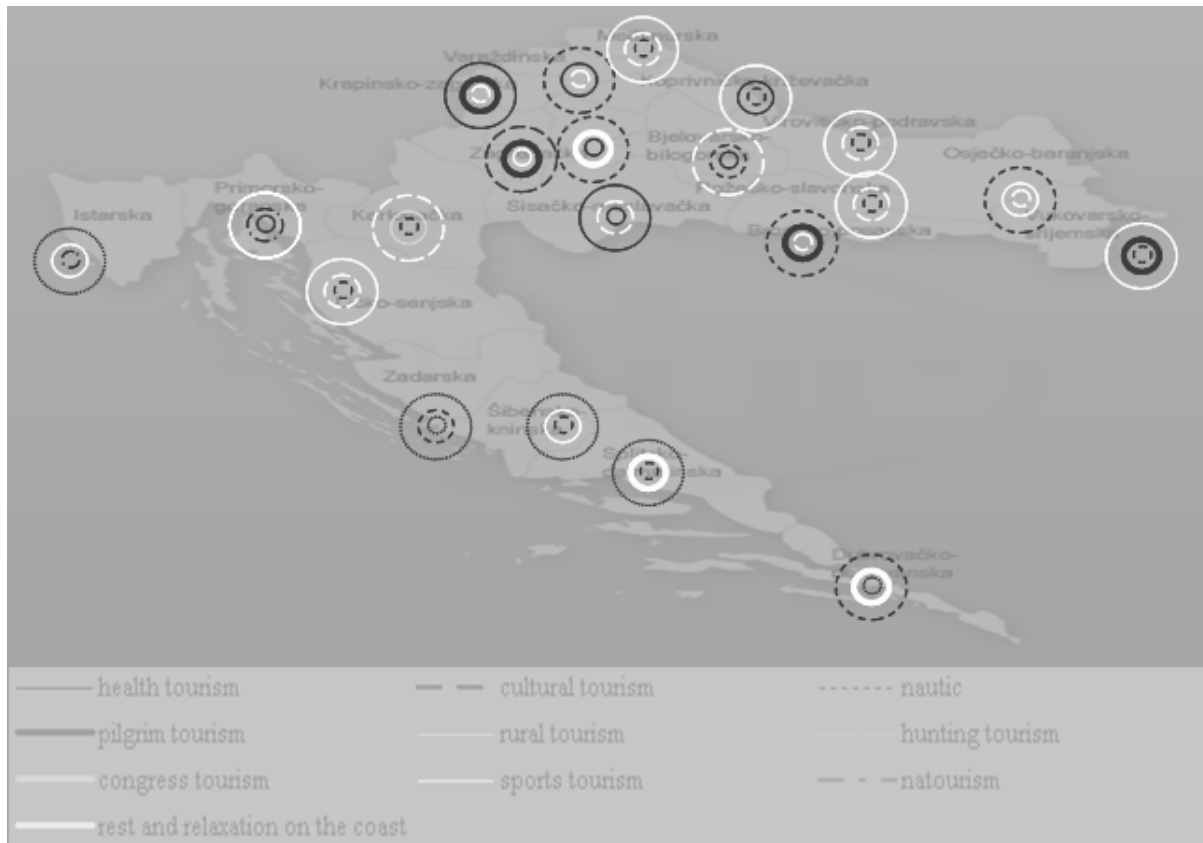


Figure 2 Tourism products in Croatian Counties by quality, market viability and centrality

Conclusion

Taking into consideration particularity of tourism product development by region, and with respect to the diversity of the region where the products are developing it is possible to apply regional portfolio model of tourism product using portfolio model as a base. Analysis of continental Croatia indicates that there is a possibility for the development of great number of tourism products. Among them the most important place is definitely a cultural tourism. This product will accomplish high market viability, although there is in many regions middle centrality and inadequate quality. Beside this product, hunting, pilgrim, rural, health and sports tourism are also important for the regions development. Analysis

of coastal part of Croatia point out that there are many possibilities to develop products that are not connection with the climate features. These tourism products also can contribute in solving the problems of seasonal tourism spreading. Among them there are certainly cultural, congress, rural, hunting, health and sports tourism. Strategy of regional development of tourism products should be based on particularities of the each region such as attractiveness, authenticity and tradition, and also on the reconstruction of the existing natural and social attractions. Implementation of the priority themes of the various products for the each region would lead to the development of the whole Croatian and not only of the coastal part.

The research showed the position of the key tourism products in the portfolio matrix within each County. Furthermore it should be made a projection of their position in the coming period. The projection should be based on an analysis of existing elements of the tourism product and destinations and on the analysis of its competitive and comparative advantage, then on the estimate of future demand, and on the analysis of economic, socio-cultural influences and impacts on the environment arising from the allocation of these resources to develop specific products of each region. Then the next phase should be made determining the usefulness of portfolio destinations including the attractiveness of existing products and compliance with the requirements and desires of consumers. Furthermore, there is the phase of the research capabilities and determination of the enlargement portfolio tourism region usefulness. In this case, matrix expansion of the tourism destination portfolio must be applied, which includes an analysis of new and existing markets and new and existing tourism products.

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UNDERSTANDING CONSUMER ACCEPTANCE OF ADVANCED DRIVER-ASSISTANCE SYSTEMS – A QUALITATIVE STUDY ON THE GERMAN MARKET

Patrick Planing & Bernd Britzelmaier

Abstract:

The overall aim of this study is to explain the individual beliefs that lead to either acceptance or resistance of Advanced Driver-Assistance Systems (ADAS) on the Germany market and thus help the industry to market this new technology. The author will present the results of a qualitative study, based on in-depth, semi-structured interviews. Employing a theoretical sampling method, car customers were interviewed at the point of sale in three different car dealerships. The implications from this study are substantial from the viewpoint that they allow for an insight in the manifold and complex interrelation of conscious and subconscious beliefs influencing the acceptance decision towards ADAS technology. In sum, ten clearly defined categories have emerged from the interview transcript as a result of the content analysis. The strongest factor that is expected to support the acceptance of driver-assistance systems is Perceived Usefulness, mainly attributed to increased safety and increased comfort. The main reasons for resistance towards this technology are Enjoyment of Driving, Loss of Control and Perceived Risks.

INTRODUCTION

Innovative driver-assistance systems have the potential to change the way of personal transportation by increasing safety and efficiency. Yet, many innovations in this field, such as brake- and lane-assistance, have not reached market acceptance despite their technical maturity and proven usefulness. From an objective point of view the decision whether or not to adopt an innovation should depend mainly on its usefulness compared to the technology it is substituting. Consumers are, however, are not always rational, objective and utility-maximising, instead they tend to base their decision on other more subjective beliefs about the technology in question (MacVaugh, Schiavone 2010, S. 199). Different areas of technological development have shown that reasonable innovations do fail in the market or take longer than expected to reach acceptance despite their proven usefulness (Rogers 2003).

Thus, learning about the reasons and root causes of beliefs that lead towards the acceptance of innovations by potential end-users is a necessary prerequisite for developing new technologies, as in the case of driver-assistance systems.

Aims and Objectives

The overall aim of this study is to explain the individual beliefs that lead to either acceptance or resistance of Advanced Driver-Assistance Systems (ADAS) on the Germany market and help the industry to market this new technology. The objective of the present study is to develop concepts, which are involved in the individual belief formation towards the use of Advanced Driver-Assistance Systems. These concepts constitute the basis for the construction of a quantitative questionnaire, thus they should be:

as complete as possible covering all sorts of affective and cognitive, conscious and unconscious, favourable and unfavourable beliefs towards ADAS technology

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clearly described, mutual exclusive and exhaustive with as few overlapping as possible directly based on the interview response with a clear and reproducible reference.

Research Focus

The focus of this research is the automobile industry and within this industry Advanced Driver-Assistance Systems, increasingly offered as optional equipment in modern cars. This research context was chosen for two reasons. First, the automotive industry is, in general, an innovation-driven industry in which competitiveness is heavily determined by innovativeness and continuous improvement. Secondly, automobiles are a highly emotional product category. Thus, conclusions from this research might also be applicable to other areas of consumer goods with rather high emotional attachment, such as mobile phones or laptops.

BACKGROUND

What is now called ADAS is to be considered as the collection of systems and subsystems on the way to a fully autonomous driving. Industry experts agree that the rapid development of recent years will inevitably lead towards "intelligent" cars, detecting dangerous situations and acting autonomously to avoid accidents (European Commission for Information Society and Media 2007, p. 6). Already available ADAS concepts include, among others, Adaptive Cruise Control, Blind Spot Monitoring, Lane Departure Warning and Lane Change Assistance (Brookhuis, de Waard & Janssen 2001, p. 247).

Advantages of Advanced Driver-Assistance Systems

The basic aim of these assistance systems is "to help prevent driver errors, give warnings and provide support in performance of driving tasks" (Smith et al. 2008, p. 341). Due to the marginal market share of ADAS today, its potential future impacts can only be estimated. A study funded by the European Commission reported that even though less than three

percent of cars are equipped with ADAS, it is estimated that already more than 5,000 accidents are prevented annually (European Commission for Information Society and Media 2007, p. 6). German traffic researcher Johann Gwehenberger (2010, p. 1) predicts that given a 100 percent equipment rate of ADAS in Europe more than half of all serious accidents could be prevented. Considering that every year more than 40,000 lives are lost in casualties in European traffic it is not particularly surprising why the EU strongly supports the diffusion of ADAS technology.

Market Situation in Europe

Despite their potential, most intelligent systems have not yet reached the market. A current study conducted in Germany showed that only between 12 and 25 percent of car drivers are aware of different Advanced Driver-Assistance Systems, and only between one and three percent of cars are actually equipped with them. Equipment rates for other European countries are not available to date, but are expected on the same level or below. Safety innovations tend to start from the top end of the market, in luxury cars, and take a long time to 'trickle down' to the mass market. Most of these innovative systems are only available in the top-end luxury automobiles, which is a major barrier for further market penetration (European Commission for Information Society and Media 2007, p. 6). In conclusion, the current market for ADAS technology is still at a very early phase with a supply that is limited to a small model range (mainly luxury cars), a significant lack of customer awareness and a marginal market spread.

LITERATURE REVIEW

"There is nothing more difficult to plan, more doubtful of success, nor more dangerous to manage than the creation of a new order of things." (Niccolò Machiavelli, The Prince 1513)

The roots of diffusion research extend back to the beginnings of social science in Europe. In the history of religion, as well as in some aspects of culture and folklore, much attention

was devoted to the diffusion of new ideas and beliefs within a society (Katz 1999, p. 144). However, it took until the early 20th century that diffusion research had made its way into the scientific tradition. One reason that innovation acceptance took long to be established as a distinct research field was the very lack of commonalities between the different fields of diffusion studies, ranging from agriculture to linguistics, medicine or psychology. It was only when Everett Rogers (1962) combined the diffusion studies in an interdisciplinary manner and thus developed a common framework that diffusion research was accepted as a research field of its own.

Rogers Diffusion Paradigm

Rogers describes the acceptance of innovations as a decision of an individual "to make full use of an innovation as the best course of action available" (Rogers 2003, p. 177), while the term diffusion describes "the process by which an innovation is communicated through certain channels over time among the members of a social system" (Rogers 2003, p. 11). According to Rogers the innovation-diffusion process is essentially an information-seeking and information-processing activity in which an individual is motivated to reduce uncertainty about the advantages and disadvantages of the innovation (Binsack 2003, p. 9). The most basic phases of this process are: (1) Knowledge, (2) Persuasion, (3) Decision, (4) Implementation, and (5) Confirmation (Rogers 2003, p. 170). The question why certain innovations spread more quickly than others and why some innovations do fail is one of the major concerns in the field of innovation diffusion research today (Gottschalk & Kalmbach 2005, p. 221). According to Rogers (2003, p. 221) the rate of adoption is influenced by a multitude of factors, which can be characterised as (1) product related influences (2) consumer related influences and (3) external influences. Performing a meta-study of 1,500 diffusion studies, Rogers (1995) found that "most of the variance in the rate of adoption of innovations, from 49 to 87 percent, is explained by only five attribute categories: (1) relative advantage, (2)

compatibility, (3) complexity, (4) trialability, and (5) observability" (Rogers 1995, p. 221).

Due to its relative simplicity and universality the Diffusion Paradigm has found a widespread acceptance in contemporary literature on innovation acceptance. At the same time this simplicity and universality of the theoretical model has raised criticism among researchers (Dethloff 2004, p. 29).

The Theory of Reasoned Action (TRA) and The Technology Acceptance Model (TAM)

Next to the diffusion paradigm, researchers increasingly employ another model, which has its origins in the field of social psychology. The Technology Acceptance Model is an adaptation of the Theory of Reasoned Action, which was developed by Ajzen and Fishbein (1980) in order to predict any kind of individual behaviour by postulating that human behaviour is based on the systematic use of available information through the formation of beliefs. The distinctive feature of the Technology Acceptance Model is that it is specifically tailored to innovation acceptance in the context of using computer information systems at the workplace (Jaensirisak 2002, p. 199). Davis, Bagozzi & Warshaw (1989, p. 320) claim that only two constructs are the essential elements in determining the user's attitude towards a technology, which are Perceived Usefulness (PU) and Perceived Ease of Use (PEU). In this regard PU is defined as "the degree to which a person believes that using a particular system would enhance his or her job performance" (Davis, Bagozzi & Warshaw 1989, p. 320), and PEU as "the degree to which a person believes that using a particular system would be free of effort" (Davis, Bagozzi & Warshaw 1989, p. 985).

Secondary Literature Review

Besides studying primary literature, an important step in any exploratory study is searching for secondary literature, which addresses a similar research question. The majority of acceptance studies considered by the authors employ either the TRA or the TAM

model, usually extended with several novel attributes, such as moral concerns or emotional involvement. Attitudes and Subjective Norms, which are at the core of the TRA model, as well as Perceived Ease of Use and Perceived Usability, which is at the core of the TAM model, were consistently found to be the main determinants of product acceptance.

METHODOLOGY

Keeping in mind that the formation of individual beliefs towards a new product involves complex cognitive and affective activities, it is particularly surprising that virtually all acceptance studies published completely depend on quantitative methodologies. Even though carefully worded, standardized questionnaires always have the downside that respondents are limited to predetermined answer choices.

In order to avoid these disadvantages the author decided to first employ a qualitative approach in order to elicit the potential concepts which can then, in a second step, be used to construct a standardized questionnaire.

Qualitative Research

Qualitative research has become a fashionable term being used for any method other than a survey. The main distinction of qualitative research, in contrast to quantitative research, however, is that it produces data which is freely defined by the subject rather than structured in advance by the researcher (Dey 1998, p. 15). While quantitative methods reduce data to scales and numbers, qualitative methodologies allow for an interpretation of the rich and complex reality of the world (Mayring 2002, p. 10). A fundamental characteristic of qualitative research is its approach to view actions from the perspective of the people who are being studied. This implies that the researcher has to develop a sound understanding of his or her target population, usually achieved by persistent participant observation. Yet, other methods, most importantly in-depth, unstructured interviews and group discussion, also proved to be successful in generating the

necessary empathy to see the world through the eyes of those being studied (Bryman 2006, pp. 61–62).

Research Method

Since this study is aimed at uncovering the beliefs that lead to technology adoption or rejection, direct observation is not feasible. Even if the observer was present at the point of sale, he or she would not be able to draw any conclusion on action motives from observation alone. Neither are focus groups or any other sort of group discussion useful in this context, since those methods tend to reveal the salient beliefs of dominant individuals that lead the discussion and might therefore give a biased view of the readily accessible beliefs represented in a population. Thus, given the research objectives of the present study personal interviews were chosen as an adequate tool for delivering personal motivations, attitudes and beliefs.

Interview Type

Literature research indicates that some questions will be necessary to elicit readily accessible beliefs towards a technology (Keeling 1999, p. 16), thus a completely unstructured interview will not be applicable in this case. At the same time it is expected that the acceptance or resistance decision towards driver-assistance technology involves multiple complex and interconnected aspects of subjective and emotional elements. Consequently, the respondents as well as the interviewer should be as free as possible to follow their thoughts. An open discussion increases the possibility of revealing subliminal and subconscious beliefs which respondents might not have been aware of beforehand. Concluding, the authors decided to employ semi-structured interviews, leaving it to the interviewer to elaborate the respondent's answers and to vary the sequence of questions.

Interview Design

According to Robson (2009, p. 274) the basic contents of an interview are a set of items

(usually questions) often with alternative subsequent items depending on the responses obtained, a proposed sequence for the questions (which in a semi-structured interview may be subject to change) and suggestions for so-called probes and prompts.

For the purpose of the present research the interviews were aimed at eliciting pre-existing evaluations and beliefs that are persistent in the interviewee's subconscious decision making process towards the acceptance of ADAS. The simplest and most direct procedure to achieve this goal is by asking respondents to name the advantages and disadvantages they associate with the technology in question. The first five to nine beliefs disclosed are readily accessible in memory and are therefore likely to serve as the primary determinants of attitudes towards the behaviour under investigation (Fishbein & Ajzen 2010, p. 100). In a second step the interviewers prepared a list of more specific questions each aimed at a feature of Driver-Assistance Systems like Lane-Keeping or Automated Cruise Control. Finally, as recommended by Flick (2010, p. 157), the interview ended up with confrontational questions, which are centred at the interviewee's reaction to the possibility of completely autonomous driving or legislative enforcement of ADAS usage. Since the given interview design was expected to result in a considerable amount of verbal content, the authors decided to use an audio-taping system, digitally recording the interview discussion and allowing for a loss-free reproduction of the interview audio track at any time.

Interview Participants

According to Marshall (1996, p. 523) "an appropriate sample size for a qualitative study is one that adequately answers the research questions". In contemporary qualitative research, nonprobability sampling has become more and more common. In theoretical sampling, the most common form of nonprobability sampling, decisions about choosing and putting research objects together are made in the process of collecting and interpreting data. The process of data collection is controlled by the emerging theory (Patton &

Patton 2002, p. 230). Usually certain individuals are selected according to their expected level of new insights for the developing theory (Flick 2010, p. 118). When no further insights are expected by the next participant the sample is said to be saturated (Schreier 2011, p. 248). In order to find individuals providing an insight and an understanding for the research objectives, the authors decided to visit automobile dealerships of different car brands and locations. This approach provides the advantage that mainly car drivers, who are in the decision phase towards the purchase of a new automobile, will be part of the sample. It is expected that new car shoppers will have more elaborated beliefs towards the potential equipment of their next car and thus are more valuable as interview partners.

In order to further increase heterogeneity of the sample, some interviews were also conducted on a university campus. Students are expected to have less experience with ADAS technology but are generally expected to have a higher level of affinity towards innovations (Waycotta et al. 2010, p. 1208). In sum, 32 interviews were conducted, nine at a Mercedes-Benz and Smart dealership, eight at a BMW and Mini dealership, seven at a VW and Audi dealership and, finally, eight on the Pforzheim University campus.

It has to be acknowledged that the theoretical sampling approach applied in the present research also conveys some risks. Even though different car dealerships were visited at different times this approach still has the limitation that the sample might be biased due to the pre-selection of participants.

RESULTS ANALYSIS

Following the content analysis process described by Ian Dey (1998), analysis of the present material started with a first familiarization of the text. During this first reading the authors marked any relevant parts of the text with regard to ADAS acceptance by underlining them. In a second step initial in vivo codes were developed from the underlined parts, directly based on the content. In order to

have a clear reference, an ascending number was assigned to each code in a side column. In the next step axial and selective coding was applied to check for any logical connection and hierarchical structure within the extrapolated codes. Next, similar codes were grouped into logical entities. For instance the codes *Good Feeling*, *Unsafe Feeling*, *Uneasy Feeling* and *Coolness* were grouped to one unit since all of these concepts include some affective elements referring to feelings and emotions. In the following step a higher-level code was developed referring to the mutual meaning of the group of codes. The process of grouping was applied until all codes, which had been developed from the data, were allocated to a logical concept category. The final category system consists of ten categories and 56 secondary codes.

KEY FINDINGS

There is no clear agreed approach how to present the analyses and the final structure of volumes of non-standard data derived from qualitative research (Easterby-Smith, Thorpe & Jackson 2008, p. 175). In the next step the results presented so far are visualized by employing *concept mapping*, a tool increasingly employed in qualitative research in order to develop and to clarify theory (Maxwell 2009, S. 47). Originally developed by Miles and

Huberman (2009), concept mapping has been developed forward to fit different purposes and is used by social science researchers in different contextual areas. The common idea is to develop a map-like pattern by “arranging and connecting a set of ideas that is relevant to the research topic” (Hesse-Biber, Leavy 2011, S. 188). For the purpose of the present research categories are expressed with circles, which are arranged around the main research objective, the intention to use ADAS. The circle size depends on the estimated significance of the particular concept developed from the number of occurrences during the interviews. Lines connecting the circles represent hypotheses for potential causal relationships. Positive and/or negative symbols, finally, illustrate whether concepts were found to support or impede the acceptance of ADAS. A “+” symbol indicates that the concept is expected to support the acceptance of ADAS, while a “-” symbol indicates that the concept is expected to lead to resistance towards ADAS. The combination “+/-” indicates that the concept was found to have ambiguous effects on the acceptance decision. The codes, which were developed from the interview transcripts, are attached to their respective concept category. In conclusion, this visualisation scheme provides a comprehensive, yet perspicuous overview on the research results, which were obtained by the qualitative interviews.

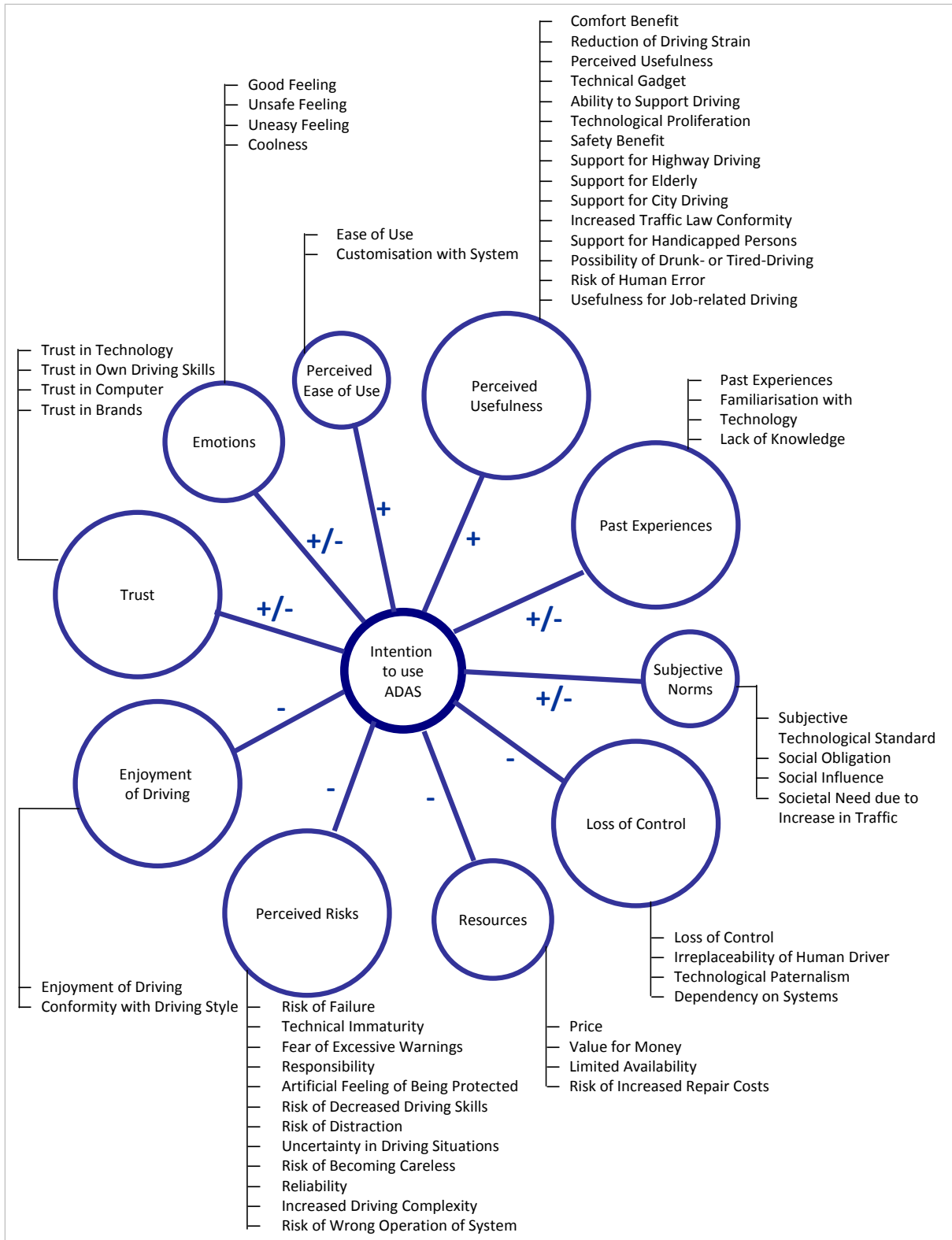


Chart 1: Visualisation of qualitative research results, Source: Own Drawing

IMPLICATIONS

The implications from this study are substantial from the viewpoint that they allow for an insight in the manifold and complex

interrelation of conscious and subconscious beliefs influencing the acceptance decision towards ADAS technology. In sum, ten clearly defined categories have emerged from the interview transcript as a result of the content

analysis. These categories and their subordinate concepts are supposed to serve as the main determinants for the acceptance decision of individuals towards ADAS technology.

Based on this qualitative study, the strongest factor that is expected to support the acceptance of driver-assistance systems is *Perceived Usefulness*, mainly attributed to increased safety and increased comfort. The main reasons for resistance are *Enjoyment of Driving*, *Loss of Control* and *Perceived Risks*. It became apparent that customers want to maintain their driving habits and want to remain in control of their vehicle in any situation. Moreover, respondents fear technical malfunction and distraction by excessive warning noises and signals. These results have implications for manufacturers from a product perspective as well as from a communication perspective. First of all, future driver-assistance systems should be developed in a way that the driver stays in control at any point of time. This could be achieved, for instance, by making them easily disengageable. Moreover, they should be developed in a way that customers do not have to change their driving habits and that drivers can still enjoy the sensory stimulation and entertainment factors of driving. From the communication perspective it is important to create awareness for the functionality as well as for the technical maturity of these systems. The interviews showed that respondents with little or no knowledge of driver-assistance systems have a higher expectation of potential malfunctions and other risks than well-informed customers.

It has to be acknowledged that these results are not representative for the target group – the German automobile drivers – since they are only based on a theoretical sample. Rather this research has delivered potential influence factors and their explanation developed from a qualitative perspective. These results can be seen as a basis for further research in this field; especially as a foundation for developing future quantitative studies in the area of driver-assistance systems.

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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.

1. 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 a). 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 b). 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.

2. 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).

3. Methodological approach

The survey was carried out in 2010¹ 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

¹ Information provided by firms refer to 2009, whereas those ones concerning production and commercialisation of vegetable and fruit are referred to 2008-2009 biennium.

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.

4. Results

4.1. 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.

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.

4.2. Results of the regression analysis and discussion

4.2.1. 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

4.2.2. 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 "t" 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 ² = 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.

5. 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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ANALYSIS OF FAMILIARITY AND WAYS OF COUCHSURFING MARKETING AS A NEW TOURIST FORM IN CROATIA'S STUDENT POPULATION

Dijana Vuković, Boris Jurič & Nina Markovac

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.

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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; 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, 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.

3. 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.

3.1. 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; June 10, 2011

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; June 10, 2011

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; 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. 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.

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.

3.2. 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.

3.3. 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.

3.4. 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 even 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.

4. 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.

5. FAMILIARITY OF THE SPECIFIC COUCHSURFING WAY OF TRAVELING WITH THE STUDENT POPULATION IN CROATIA

5.1. 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

Question No. 1: Have you heard of Couchsurfing?

Graph No. 1.: Have you heard of Couchsurfing?

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

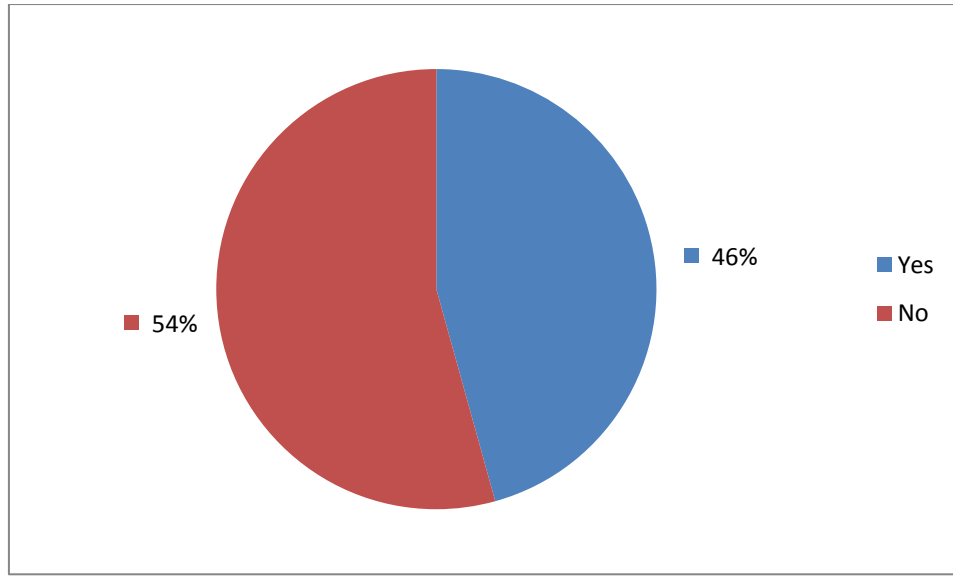
Preliminary study included 200 subjects in the period between October 20 and November 20 in 2010 at all faculties within the University of Zagreb. Three subjects were eliminated from the research due to incomplete responses.

Sample characteristics

The structure of the sample and the comments are presented at the end of the study through the Demographics option.

5.2 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. 2: If you have heard of it, where?

Graph No. 2. If you have heard of it, where?

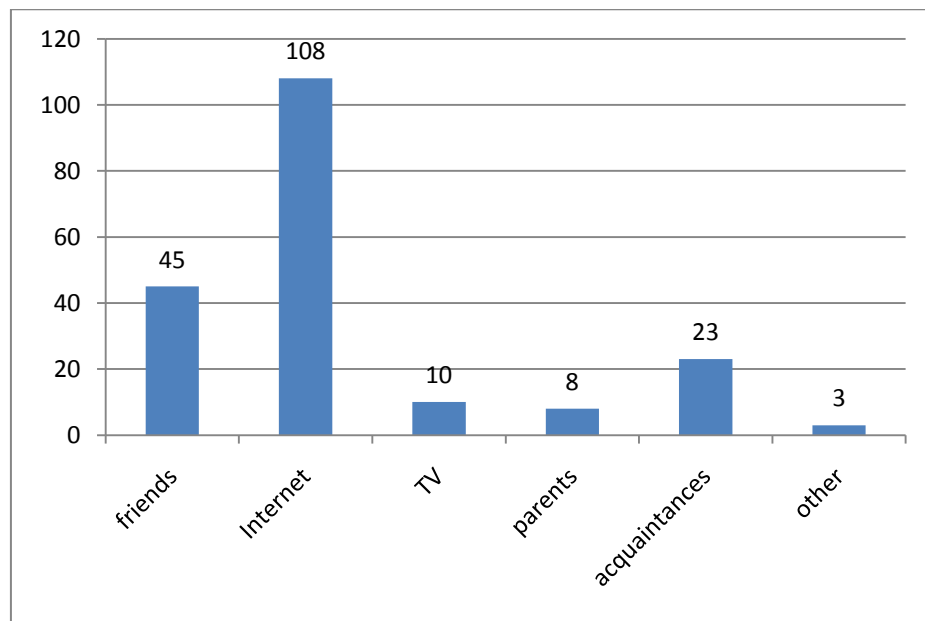


Table No. 5: If you have heard of it, where?

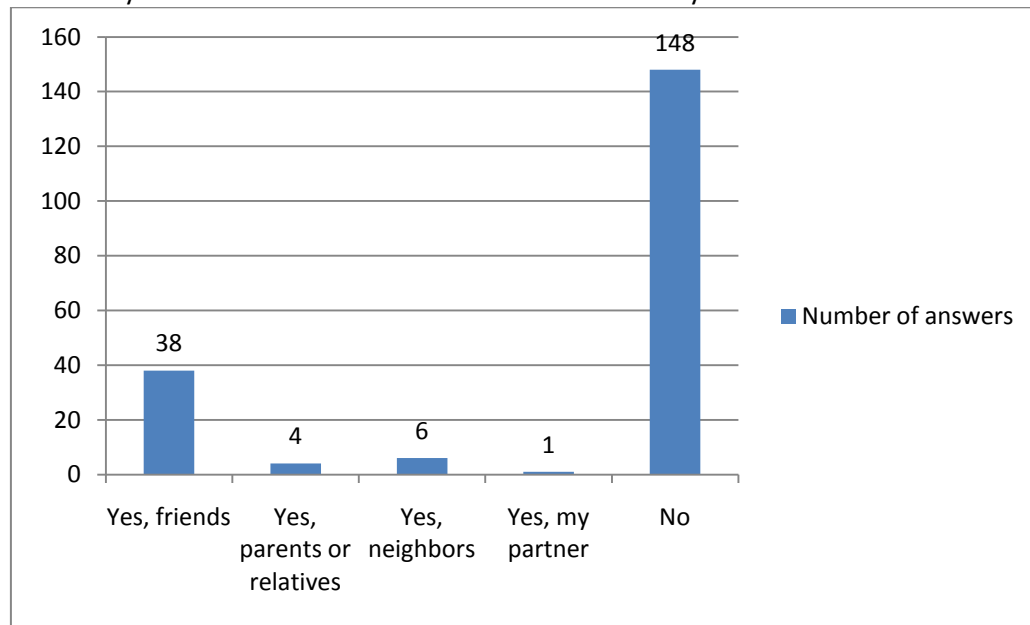
friends	45	23%
Internet	108	55%
TV	10	5%
parents	8	4%
acquaintances	23	12%
other	3	1%

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. 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?



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.

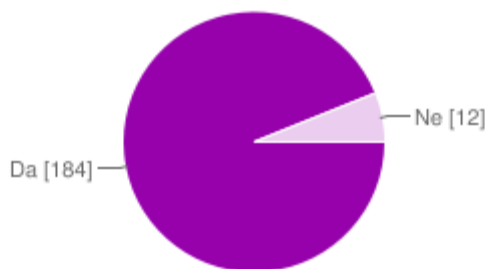
Question No. 4: If you answered the previous question with 'Yes', where did this person travel?

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. 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.

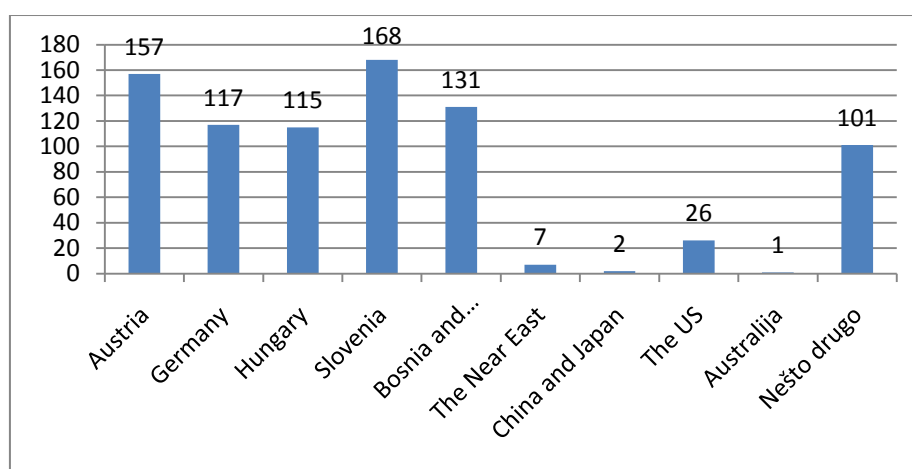
Question No. 5: Do you like traveling?

Graph No. 4: Do you like traveling?



Question No. 6: Where did you travel outside Croatia?

Graph No. 5: Where did you travel outside Croatia?

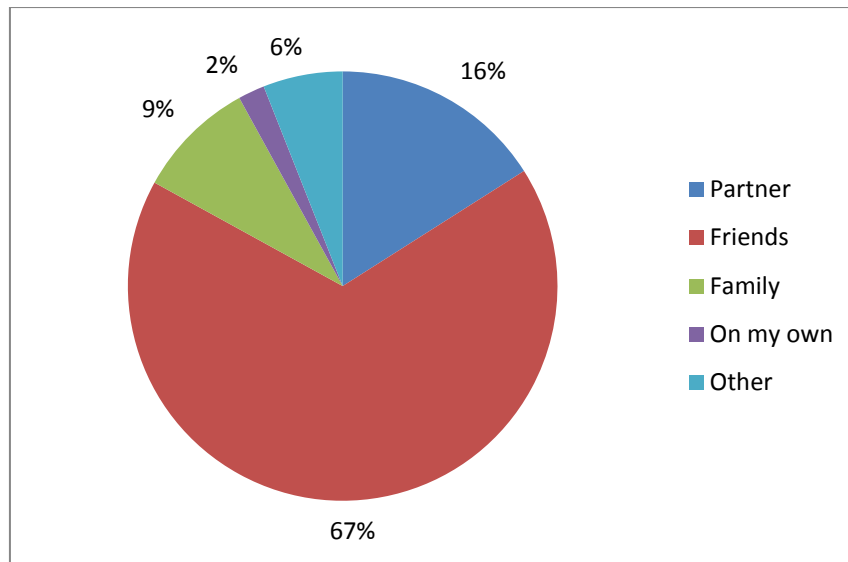


In this question, where the respondents could circle several countries, we deliberately left out some countries and offered their opposites – on the one hand we offered countries Croatia borders on or gravitates towards and as a contrast we offered some very distant destinations. As expected, the largest 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?



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. Active students cannot afford to

travel for longer than a few weeks due to their college obligations. The fact that almost $\frac{3}{4}$ 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.

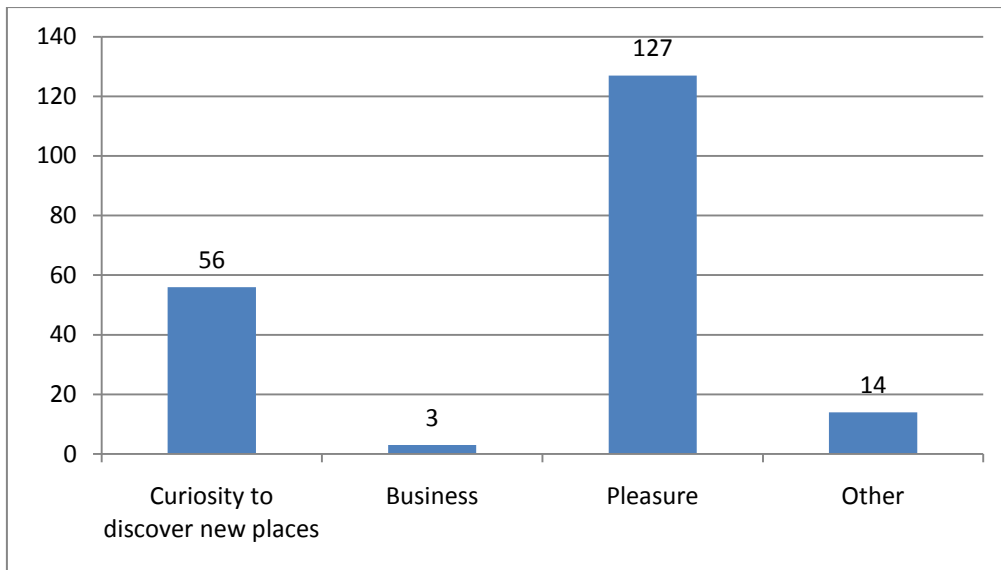
Question No. 8: How long do you usually travel for?

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%

Question No9: What is your most common reason for traveling?

Graph No. 7: What is your most common reason for traveling?

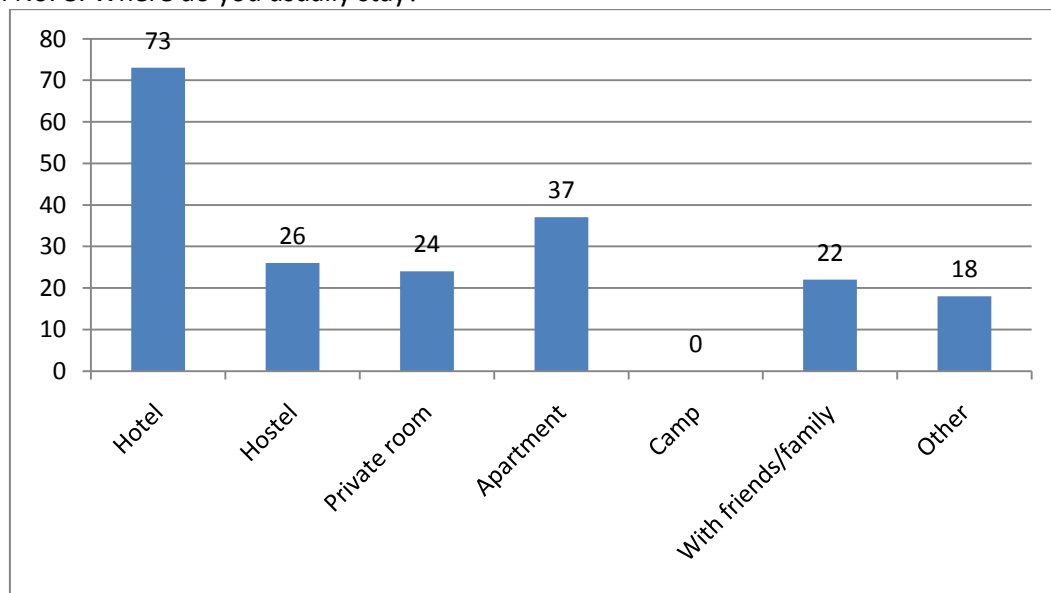


This graph shows that the students' reasons for traveling coincide with the CS mission, i.e. discovering new places and getting to know new cultures as well as personal pleasure which results from it. The fact that only 3% of students travel for business reasons is not surprising as most respondents are still college students.

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. 10: Where do you usually stay?

Graph No. 8: Where do you usually stay?



Question No. 11: Which of the following statements do you agree with? (several answers possible)

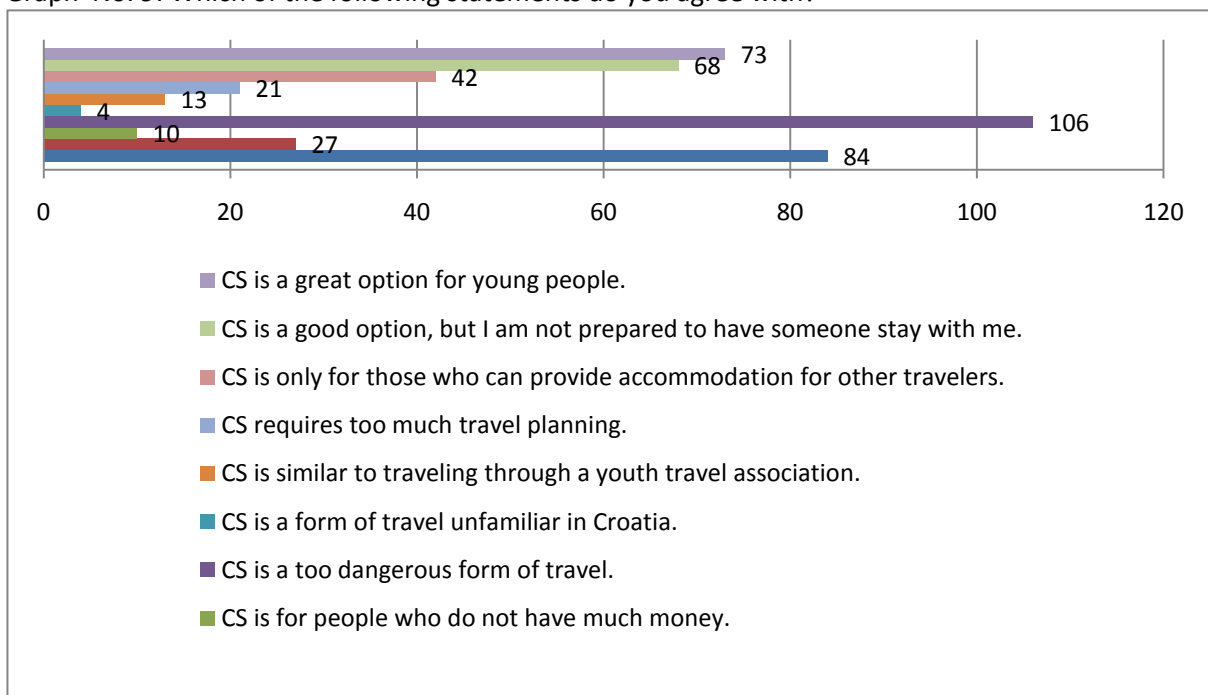
Table No. 7: Which of the following statements do you agree with?

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?

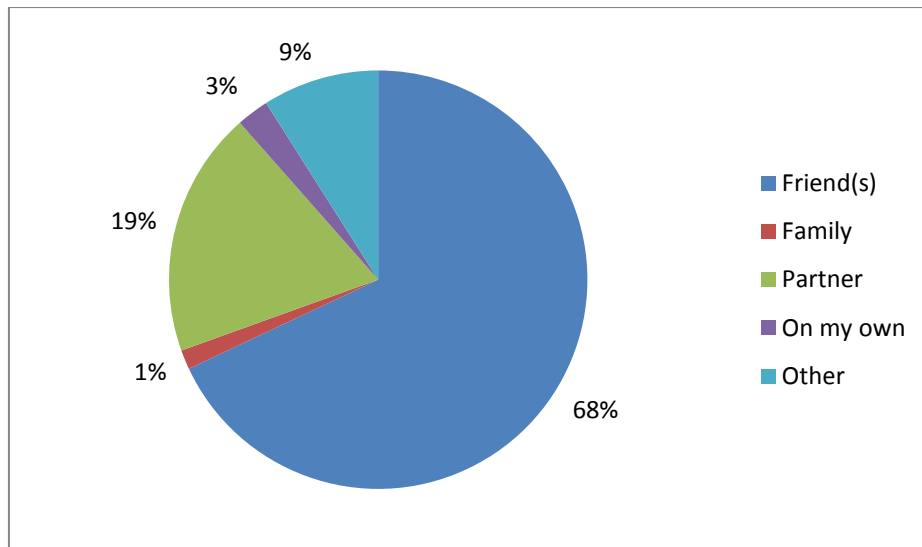


Respondents could choose several answers to this question. The results show that they believe CS is a good and useful network, but they emphasize that people in Croatia are not familiar enough with it, which suggests that

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 form 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?

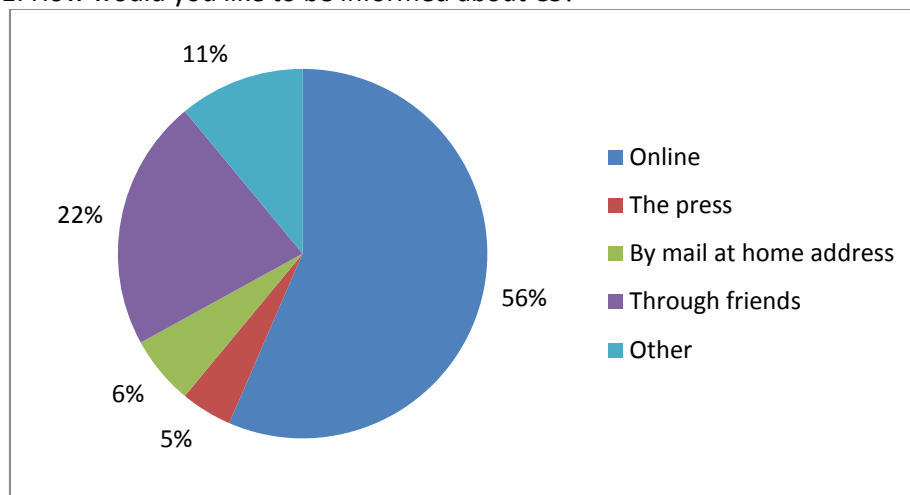


The question about the choice of travel companions is appropriate as the respondents belong to the student population and students like traveling with friends, so CS should encourage group travel. 19% of respondents would like to travel with their partner, which is, by all means, an unforgettable experience for

young couples. 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.

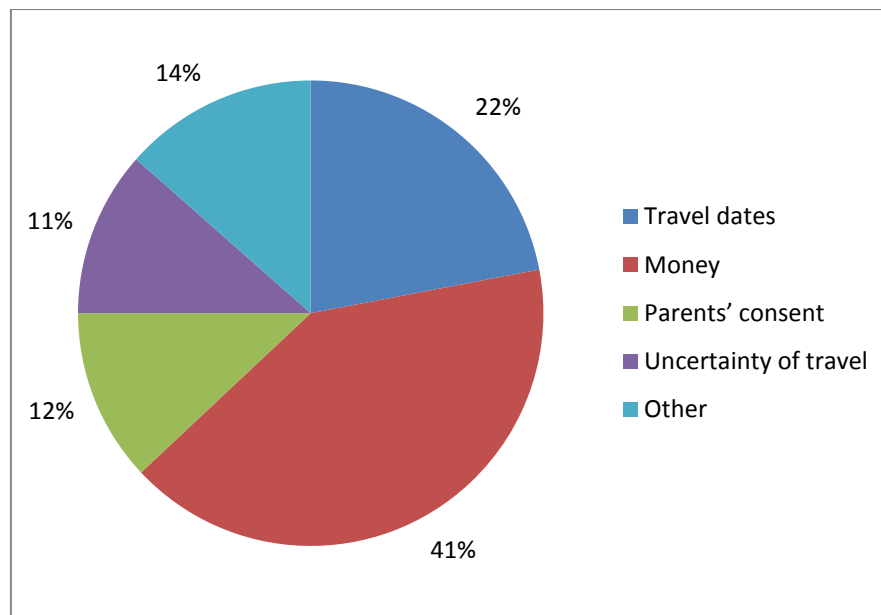
Question No.13: How would you like to be informed about CS?

Graph No.11: How would you like to be informed 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?



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.

5.3. 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.) 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.

6. 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.iztg.hr/istraživanje TOMAS ljeto2010](http://www.iztg.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

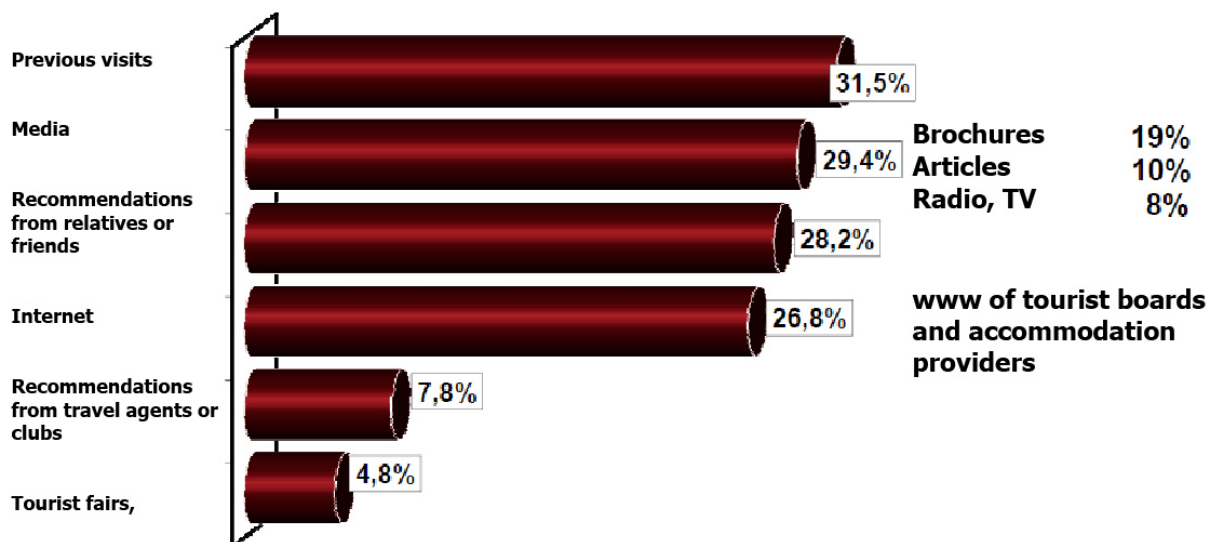
The existing conditions such as motivation, age structure, insufficiently explored cultural values – the so-called ‘small nations’ culture’

Creating a high-income clientele in a few years’ time – getting former students to return in the future with their families

6.1. 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/istraživanje TOMAS , summer 2010](http://www.iztg.hr/istraživanje_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.

7. 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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A STATE OF THE ART LITERATURE REVIEW ON PERFORMANCE MEASUREMENT IN NON-PROFIT ORGANISATIONS WITH A SPECIFIC FOCUS ON GERMAN YOUTH CLUB PROVIDERS

Corinna Anja Hatzfeld

Abstract:

This paper aims to understand the current state of literature on performance measurement in non-profit organisations (NPOs) with a specific focus on German youth club and open youth work providers.

The measurement of performance in private sector organisations has been the topic of much debate over the past 25 years. Due to the new public management movement, academics have deliberated the topic of public sector performance measurement for more than 20 years.

In search of suitable management instruments for the non-profit sector, performance measurement has gained more and more importance since the late 1990s. However, literature and academic research on performance measurement in NPOs is far less in their amount and for that more recent in date.

The vast majority of literature published in the field, adjusted private and public sector methods or instruments to the needs of NPOs. More recent research developed specific frameworks that are adapted to characteristics of NPOs. These determining characteristics are a multiplicity of stakeholders, variety of funding sources, high dependency on a changing mix of grants for funding, reliance on the work of volunteers to deliver services and lack of established managerial and analytical instruments that support performance measurement systems.

Keywords: *non-profit organisation, performance, performance measurement, social work*

Introduction

Like Hatry once stated 'Unless you are keeping score, it is difficult to know whether you are winning or losing' (Hatry 1978, p. 28). For him, the act of measuring productivity is mainly about knowing whether you are successful or not. But when it comes to keeping score, is it all about victory or failure? Should measurement not help to focus on strengths as well as to improve weaknesses? Is scoring the only form of real success? Is a youth club more successful because it reaches externally defined budget targets? Does it score because it is attended by a certain number of children and adolescents each day? Should winning not be about

reaching high quality standards through effective allocation of given resources? For this purpose the overall aim must not only be to keep score but to define what determines winning in terms of success.

German statutory and voluntary organisations that provide youth clubs and centres are facing several strategic challenges which are threatening their future existence. These challenges include:

- The lack of planning reliability, especially as government budgets are cut back, and, as a result of this, the increasing dependence on donations and third-party funds (e.g., Greiling 2009, p. 71; Rauschenbach et al. 2010, p. 40).
- Shrinking target groups due to negative demographic trends (e.g., German Youth Institute n.d.; Greiling 2009, p. 67; Rauschenbach et al. 2010, p. 37).

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- Rising '*competition*' in terms of the enlargement of all-day schools (e.g., German Youth Institute n.d.; Rauschenbach et al. 2010, p. 39).
- General value changes in the society (e.g., Greiling 2009, pp. 61–63).
- And the enlargement of general duties and responsibilities in relation to growing demands of various stakeholders (e.g., Greiling 2009, pp. 64–65).

Besides these external challenges, the organisations are also facing several internal challenges with regard to their economical and pedagogical performance. As a result, the organisations have to implement instruments that help them find answers to questions like:

- What factors determine or define the success of a youth club or its social workers? (e.g., Rauschenbach et al. 2010, p. 41)
- What is successful work of a youth club with regards to quality? (e.g., Koss and Fehrlen 2003; Deinet 2009; König 2009)
- How is the economical, individual, or societal outcome of the work measurable? (e.g., Coelen and Wahner-Liesecke 2009; Deinet 2009; Lindner 2009; Rauschenbach et al. 2010, p. 41)

These developments in the sector show that especially in times of growing economical and societal pressure, controlling and performance measurement are gaining more and more importance (Poister 2003; Eisenreich, Halfar and Moos 2005). Like many other non-profit organisations (NPOs), youth club providers have to prove their effectiveness and efficiency. The pressure of '*doing well while doing good*' (Kanter and Summers 1996, p. 233) has reached the organisations. To compete for donations, sponsors, volunteers and public funds youth club providers, like other NPOs, are more and more facing a growing need to demonstrate their '*value for money*' (Cairns et al. 2005, p. 135). Consequently, the pressure to measure activities in order to demonstrate competency, to achieve legitimacy both by the public and investors, and to obtain future funding is increasing (Paton 2003; Cairns et al. 2005; Barman 2007; Moxham 2009).

For sure, youth club providers are not the only organisations that are facing these challenges.

In the last few years, the topic of performance measurement in NPOs is receiving increasing academic and practitioner attention within the whole non-profit sector (among others, Moxham 2009; Stötzer 2009; Greiling 2009; LeRoux and Wright 2010; Bagnoli and Megali 2011). As a result, a range of measurement frameworks and guidelines for the sector were developed. But despite all efforts, a consensus on how to measure the performance of NPOs was not yet achieved (Moxham 2009).

Literature Review

This literature review refers to performance measurement in NPOs with a specific focus on open youth work providers. Although the topic is broaching challenges of the field of education, it will approach the problem mainly from a managerial point of view. Consequently, the core of the review is focused on (business, public and non-profit) management themes.

A review of literature in the field of performance measurement, based on both German and international literature, revealed that there is a comprehensive amount of academic research either on performance measurement in general, or with focus on private, public and non-profit sector performance measurement, but none with the specific focus on youth club providers.

Despite a well established body of knowledge that focuses on performance measurement in private and public sector organisations, research on performance measurement of NPOs is still in an early stage of development (Moxham 2006). But since NPOs face a pressure to have to demonstrate their achievements (Paton 2003; Cairns et al. 2005; Barman 2007; Moxham 2009), the non-profit sector cannot close itself to various concepts and terms related to the topic of performance measurement including effectiveness, efficiency, accountability, quality standards, target achievement, outcome measurement and evaluation. Consequently, research on non-profit management themes in general (e.g., Merschen 2004; Helmig 2006; Pynes 2011) and non-profit financial management themes in particular (e.g., Eisenreich, Halfar and Moos 2005; Bono 2006; Schauer 2008; International Group of

Controlling 2010; Bachert and Eischer 2010; Coe 2011) is enlarging over the last decade. As a result, not only in literature but also among non-profit leadership, the issue of measuring non-profit performance is receiving increasing academic and practitioner attention (amongst others, Poister 2003; Moxham 2006; Abraham 2007; Brüggemeier and Budäus 2007; Greiling 2009; Moxham 2009; Stötzer 2009; Penna 2011).

Over the last ten to fifteen years literature on performance measurement within the non-profit sector has gradually developed in several identifiable stages. In the late 1990's, a considerable amount of literature dealt with performance measurement either from the how-to-do level with focus on processes (e.g., Grobman 1999), the organisation's capacity and skills for strong performance (e.g., Edwards, Austin and Altpeter 1998; Letts, Ryan and Grossman 1999), or the identification of adequate performance indicators (e.g., Herzlinger 1999). But, according to Greiling, the lines between performance reporting, performance measurement and performance management were blurred over a long period of time (2007, p. 2). According to her, this did not change until several years ago when performance reporting delineated itself as an accountability tool and performance measurement as a mere steering instrument. Unfortunately, she does not define these notions any further especially when it comes to the differences between performance measurement and performance management. Her caution could cohere with the fact that there is still no exact delineation between both terms in existing non-profit literature.

In more recent not-profit literature, a shift from output to outcome measurement can be perceived. This is from the academic perspective (e.g., Poister 2003) as well as from a practical perspective (e.g., Penna 2011; Urban Institute 2011). Some authors even widen the outcome measurement approach by an impact dimension (e.g., Bagnoli and Megali 2011) and especially in the German literature by the dimension of effects (e.g., Bono 2010; International Group of Controlling 2010). Due to the fact that outcomes, impacts and effects are

not exactly delineated from each other and are sometimes even used interchangeably, future research will have to, on the one hand, delineate the terms, and on the other hand decide whether performance measurement in youth club providers should primarily focus on outcomes, impacts, or effects of the activities.

The literature review revealed Moxham (2006), in particular, whose findings are closely related to the topic of performance measurement in youth club providers. That is, because Moxham concentrated her work on performance measurement of voluntary and community organisations. As her focus had been mainly set on analysing existing performance measurement frameworks and their adjustability to voluntary and community organisations; this literature review will mainly build up on her findings and slightly change the focus to the definition of youth club provider-specific performance criteria and suitable indicators that measure that criteria. In her work, Moxham derived three key questions from existing private, public and non-profit sector performance measurement literature (for a detailed derivation, see Moxham 2006, pp. 82–84) that mainly influence the development of performance measurement systems in voluntary and community organisations:

- The *context* of why NPOs are required to measure performance.
- The *criteria* of what they are required to measure.
- The *process* of how they will collect and feed back the required information.

It will be assumed that these aspects can be adapted to the more specific context of open youth work providers.

Context of Performance Measurement (Why?)

Moxham (2006) found that it is important to understand why an organisation measures performance in order for measurement to be useful to the organisation. Accordingly, the reasons for implementing performance measurement systems in a NPO are myriad. Cairns et al., for example, found that systems are adopted forced by '(...) a complex mix of mandatory and voluntary and internal and external factors' (2005, p. 140), as shown in Table 1. The introduction of this paper already

briefly discussed the context of performance measurement for open youth work providers. Therefore, the following will only discuss complementary aspects found in the literature reviewed.

Cairns et al. 2005 (2005) mainly named three aspects that drive the organisations to develop performance measurement systems: Firstly, the arising pressure and influence of funders or other external stakeholders; secondly, the implementation of performance measurement as a proactive step of the organisation's management to maintain the credibility and legitimacy of the organisation; and thirdly, the intrinsic desire of management to demonstrate accountability to the organisation's stakeholders (2005, p. 140). Especially the third notion is supported by Poister (2003, p. 124) and Greiling (2009, p. 83) who both speak of the possibility of self-motivated development of performance measurement systems. Poister, however, takes a more functional position. He believes that organisations generally implement performance measurement systems to monitor their performance and to present and communicate the results to their stakeholders (2003, p. 124). From his perspective, performance measurement and for that the driver for implementing it, is the support of various management functions like monitoring and reporting, strategic planning, budgeting and financial management, programme management, programme evaluation, performance management, quality and process improvement, contract management, external benchmarking and the communication with the public (Poister 2003, p. 10). Therefore, he takes the position that performance measurement should mainly motivate management and employees to improve their performance (Poister 2003, p. 17). Problematic about this point of view, could be that in most NPOs, and open youth work providers in particular, classical management features are not functionally developed. This is mostly due to

limited managerial and analytical resources in these specific organisations. Consequently, future research has to take influences and demands of internal and external stakeholders into greater account.

With regard to the arising pressure that is imposed by funders and other stakeholders, Moxham (2006) additionally found that in many cases the funding bodies stipulate the measurement criteria and with that the evaluation processes. This is due to the fact that NPOs are to a large extent funded by public or governmental funds. Therefore, public sector accountability becomes '*a key consideration*' (Moxham 2006, p. 255) for the organisations to be able to provide feedback how funding has been spent; and consequently, to demonstrate achievements to be able to secure continued funding (Moxham 2009, pp. 747–749). Therefore, she reduces drivers of performance measurement developments, and with that the main function of performance measurement systems in voluntary and community organisations, to mere accountability reasons. With that she contradicts for example Greiling (2009), who as mentioned before, delineates performance reporting as an accounting tool whereas performance measurement as a mere steering instrument.

Table 1 summarises the aforementioned drivers for non-profit performance measurement found in literature with the help of a matrix. This listing should not be seen as final, it is merely a collection of aspects that need further examination:

Moxham (2006) additionally found that while many NPOs understand the rationale for performance measurement shown in the table above, their criteria and processes that are actually used often do not support this rationale. It can be assumed that this also applies to youth club providers.

	Internal		External	
Mandatory	Pressure and influence of internal stakeholders (e.g., boards)	<i>Assumption of the author</i>	Pressure and influence of external stakeholders (e.g., funders)	<i>Cairns et al. 2005, p. 140; Moxham 2006, p. 255, 2009, pp. 747–749</i>
			To achieve continued public funding	<i>Moxham 2009, pp. 747–749</i>
			To fulfil public sector accountability needs	<i>Moxham 2006, p. 255</i>
			Rising economical pressure due to cut back of government funding	<i>Eisenreich, Halfar and Moos 2005, p. 15; Greiling 2009, p. 71; Rauschenbach et al. 2010, p. 40</i>
			Rising societal pressure due to value changes in the society and negative demographic developments	<i>Eisenreich, Halfar and Moos 2005, p. 15; Greiling 2009, pp. 61–63</i>
			Enlargement of general duties and responsibilities in relation to growing demands of various stakeholders	<i>Greiling 2009, pp. 64–65</i>
Voluntary	Proactive steps to maintain credibility and legitimacy of the organisation	<i>Cairns et al. 2005, p. 140</i>		
	Desire to demonstrate accountability to internal stakeholders	<i>Cairns et al. 2005, p. 140</i>		
	Self-motivated development to support management functions and motivate management and employees to improve their performance	<i>Poister 2003, pp. 10, 17; Greiling 2009, p. 83</i>		
	Interest to find factors that determine or define the success of an organisation or employee	<i>Rauschenbach et al. 2010, p. 41</i>		
	Desire to clarify successful work of an organisation with regards to quality	<i>Koss and Fehrlen 2003; Deinet 2009; König 2009</i>		
	Interest to measure the economical, individual, or societal outcome of the work	<i>Coelen and Wahner-Liesecke 2009; Deinet 2009; Lindner 2009; Rauschenbach et al. 2010, p. 41</i>		

Table 1 Drivers for the Development of a Performance Measurement System

Performance Criteria (What?)

The aspect of performance criteria is directly linked to the definition of performance in general because it has to be defined what the success of an organisation is to be able to find performance criteria that measure this success. Additionally, performance criteria can be used interchangeably with performance indicators or performance measures. Hence, Letts, Ryan and Grossman are sure that *'without the benefit of clear performance indicators, many nonprofits and their funders use inputs, process, and outputs as surrogates, simply tracking the amount of service provided on the assumption that it makes a difference'* (1999, p. 176). But

how is it possible for an organisation to find significant and clear performance criteria? The answer might be, when it has an exact conception of what is performance.

Definition of Performance

Throughout literature, several authors like Edward Deming, Peter Drucker and Robert Kaplan are credited for the famous quote *'if you can't measure it, you can't manage it'*. Decker, Khan and Meiren (2011, p. 44) slightly widened that quote to *'if you can't describe it, you can't measure it'* because only when something is describable can it be analysed, monitored and evaluated. But describing performance,

respectively good performance, is a common problem for NPOs and particularly for youth-club providers, whose primary purpose is something other than to make a profit or, with other words, create wealth for its shareholders. This lack of goal clarity is referred to in literature as a non-existing bottom line (Drucker 1990, p. 107) or the existence of multiple bottom lines (Letts, Ryan and Grossman 1999, p. 4). According to Greiling (2009, p. 42), the lacking prominent position of the intent to make a profit combined with the dominant position of factual goals and divergent stakeholder demands leads to an ascent in performance complexity. Therefore, the following will try to make performance of a youth club provider describable by attempting to define what performance is in terms of success.

Performance based on Private Sector Literature

If the term performance is looked up in an English or German dictionary, it can be seen that it has a variety of differing meanings. For example, according to the Oxford Dictionaries Online (2011), the term performance can be defined with focus on two aspects. Either performance is *'an act of presenting a play, concert, or other form of entertainment'* or *'the action or process of performing a task or function'*. Performance from this point of view has to somehow be related to a theatrical, mechanical and psychological action or process. It seems to be an act of doing something. Therefore, it is remarkable that the dictionary definition lacks any reference to organisational performance (Meyer 2007, p. 117) since the act of doing something could be also applied to

running an organisation or producing products or services. As the literature review is about measuring the performance of youth club providers, the focus of the following will to be set on the aspects of organisational performance.

In the German context, it seems even more complicated to delineate performance because the German term 'Leistung' has different meanings in the general linguistic usage as well as throughout various academic disciplines (Krause 2006; Pleier 2008; Hain 2008; Seiter 2011). The various academic disciplines seem to have in common that performance is always process- or result-oriented. Harbour simplifies this by writing that performance is the actual accomplishment in terms of outcome or results *'(...) or what is left at the end of the day after everyone has gone home'* (Harbour 2009, p. 9). Throughout the disciplines, and particularly in the context of organisations, performance is often equated with efficiency and effectiveness (among others, Neely, Gregory and Platts 1995, p. 80). Furthermore, with regards to organisational performance, some authors give the term performance a future dimension as they stated that performance is *'(...) about the capability of generating future results'* (Lebas and Euske 2007, p. 137) or *'(...) ultimately, future cash flows (...) discounted to present value'* (Meyer 2007, p. 116).

In order to be able to clarify performance, Table 2 summarises the definitions found in the reviewed private sector literature:

Performance According to Private Sector Literature	Author / Source	Relation to...
<i>Is "(...) an actual accomplishment, outcome, or result - or what is left at the end of the day after everyone has gone home."</i>	Harbour 2009, p. 9	Results
<i>Is "an act of presenting a play, concert, or other form of entertainment [or] the action or process of performing a task or function."</i>	Oxford Dictionaries Online 2011	Processes
<i>"(...) is defined as the potential for future successful implementation of actions in order to reach the objectives and targets. (...) is constructed by the management system and by managers."</i>	Lebas 1995, p. 23	Future results
<i>"(...) is not just something one observes and measures; it is the result of a deliberate construction. Performance is a relative concept, defined in terms of some referent employing a complex set of time-based and causality-based indicators bearing on future realizations. Performance is about the capability of generating future results. The capability of generating future results can be described through a causal model. (...)"</i>	Lebas and Euske 2007, p. 137	
<i>"(...) is not entirely measurable. Firm performance is, ultimately, future cash flows (...) discounted to present value."</i>	Meyer 2007, p. 116	
<i>"(...) is a complex concept. (...) [is] the process as well as the future outcome (...) is a social construct."</i>	Lebas and Euske 2007, p. 130	Processes and future results

"Understanding performance relies on the identification of a causal model that describes how actions today can influence results in the future. (...) the term 'performance' [should] be reserved for the sum of all processes that lead to a potential or future sequence of outcomes and results."	Lebas and Euske 2007, p. 131	
"(...) [is the] degree of stakeholder satisfaction."	Wettstein 2002, p. 17	Stakeholder satisfaction
"The performance of a firm is what it does. If the firm performs well and if the firm adds value to customers in excess of its costs, and promises to continue to do so, then it will have performed well for its shareholders. Whether shareholders will profit from this performance is a somewhat different matter."	Meyer 2007, p. 124	Shareholder satisfaction

Table 2 Definition of Performance (Private Sector Literature)

According to the sources of private sector literature listed above, performance in for-profit organisations is mainly about processes that lead to future results, cash flows, and activities that cause shareholder and stakeholder satisfaction.

The problem with these definitions is, that they are mainly profit-oriented and with that seem rather one-dimensional and not adoptable to the background of NPOs or youth club providers in particular.

Performance based on Non-Profit Sector Literature

What is remarkable is, that in the not-profit environment, performance is often used interchangeably with the success of an organisation (Hatry 1978; Schwarz 2003; Bono 2006; Langthaler 2007; Bagnoli and Megali 2011). This is because it is believed that good performance has to somehow lead to the success of the organisation. The problem with

success is, however, that in a non-profit oriented environment it cannot just be measured on a financial scale. Like Letts, Ryan and Grossman discovered: *'The complexity often starts with the problem of defining success. Everyone might agree that success means social impact, but measuring social impact (...) is implicitly complicated'* (1999, p. 176). To do successful community work, it is generally important to know the interests of various relevant stakeholders. For open youth work as a part of community work, that implies that success cannot be valued solely by objective means. According to Koss and Fehrlen (2003, p. 20), the even more severe problem is that it cannot be valued by subjective means either. So what defines performance of a NPO?

In order to be able to clarify performance of youth club providers, Table 3 summarises the definitions found in the reviewed non-profit sector literature:

Performance According to Non-Profit Sector Literature...	Author/Source
"(...) is about contributing to agreed needs and objectives, rather than just assuming this is just 'the way things generally are' or 'the way the world is'. It's about making a difference and doing things well, instead of just 'churning out' activity for the sake of it."	LG Improvement and Development n.d., p. 77
"Everyone might agree that success means social impact, but measuring social impact (...) is implicitly complicated."	Letts, Ryan and Grossman 1999, p. 176
Success of an NPO can be seen as the result of systematic management of stakeholder interests.	Schwarz 2003, p. 644
NPO are successful when they combine effective and mission-oriented actions with an efficient input. Therefore, it is important to define central success factors (...) that consider various stakeholder interests.	Langthaler 2007, p. 88
Is a level of target completion that is reached by an individual, a team, an organisation or a process.	Bono 2010, p. 24

Table 3 Definition of Performance in Terms of Success (Non-Profit Sector Literature)

The fewer amount of definitions can be explained by the fewer amount of relevant literature. Even these few attempts at a definition assume the correctness of the aforementioned assumption that non-profit

performance is more complex than performance of private organisations. To reduce complexity, Lebas and Euske advise that organisations should generally define a performance concept or causal model that

applies to their own situation (2007, pp. 127–128). An initial review of literature revealed several existing causal models that focus on various dimensions of performance, like outputs and outcomes (Poister 2003, p. 37; Lebas and Euske 2007, p. 128; Penna 2011; Urban Institute 2011), impacts (NCVO 2003; Schwarz 2003, p. 653; Bagnoli and Megali 2011, p. 161), or effect (Bono 2010, p. 80; International Group of Controlling 2010, p. 47). Interestingly, with the exception of Lebas' performance tree (first mentioned by Lebas 1995 and refined by Lebas and Euske 2007) all models found were located in the non-profit sector literature. This again supports the increased complexity of non-profit performance. It also becomes obvious that in order to describe performance of youth club providers, a model or concept should be defined. To assess which of the dimensions is best suited for youth club providers, further and broader research has to be conducted.

Performance Measurement (How?)

Through the process of defining a causal model, performance becomes more describable and with that, measurable. Therefore, appropriate indicators to describe, monitor, and measure the status of performance have to be developed. For this reason, the following will define what performance measurement is.

Definition of Performance Measurement

Performance measurement has been a topic of much debate for the last 25 years. But despite its importance in the business management literature, there is still no commonly accepted definition of the term. As Neely, Gregory and Platts stated, "*Performance measurement is a topic which is often discussed but rarely defined*" (1995, p. 80). According to Klingenbiel (2001, p. 18), there are three reasons for the absence of a generally accepted definition. Firstly, PM is confronted with a high developmental dynamic and this leads to the risk that an explicit definition will become insufficient in a short amount of time. Secondly, especially in the German-speaking regions, a tendency to equate PM with the Balanced Scorecard developed by Kaplan and Norton (1992) can be perceived. Thirdly, the context of PM is so complex that it is almost impossible to put all relevant aspects into one definition.

Reasons for a lacking definition could also be found in the historical development of performance measurement that can be broadly divided into two periods. The first period lasted from 1919 (the emergence of the DuPont-System of Financial Control) until the mid 1980's and is characterised by systems that are generally backward looking and a main focus that is set on traditional financial measures. The second period was induced by Eccles' '*Performance Measurement Manifesto*' (Eccles 1991) and is characterised by systems that pursue financial and non-financial as well as descriptive and predictive measures in a 'balanced' approach. In the 1990's, this multidimensional approach was extended by the deliberate embedding of various stakeholders' interests (e.g., Kaplan and Norton 1996). The early 2000's were characterised by the differentiation of various performance dimensions and the integration of incentive schemes. More recently, a link of internal and external performance indicators can be aspired (Pleier 2008, p. 16; Bono 2010, p. 26).

Despite the lack of a commonly accepted definition, in order to proceed, it seems necessary to delineate the scope of the term and follow Seiter (2011, p. 109) who believes that PM can be approached with the help of three perspectives: Firstly, the functions of PM; secondly, its processes; and thirdly, its instruments. Therefore, with respect to further research it can be seen as a methodical and systematic approach to measure the success of a youth club provider.

Non-Profit Performance Measurement

With regard to the non-profit environment, the following will concentrate on three main issues. Firstly, the adoptability of private sector approaches; secondly, the extent of currently systems in use; and thirdly, sector-specific problems that influence the development of performance measurement in NPOs.

Adjustability of Business Frameworks to Non-Profit Organisations

With regard to the use of performance measurement in NPOs, Merchant and van der Stede recommend that performance

measurement and management control systems in general have to be different from business systems because for many of the organisations earning money is only a constraint and not an *'overriding goal'* (2007, p. 782). This assumption is supported by Anheier (2000, p. 5) and other current management and organisational theories that also state that one cannot fully transfer business practices into NPOs; particularly in the financial field.

Interestingly, Moxham found that the measuring of performance in NPOs is principally not *'distinctly different'* (2009, p. 745) from the measurement of private or public sector performance, at least when it comes to the design of systems and the drivers for performance measurement. These findings are partly supported by Merchant and van der Stede who claim that the basic needs for good control, their sets of control problems and control tools are the same (2007, p. 789). Hence, Moxham found that the existing body of knowledge on performance measurement systems which predominantly focuses on the private and public sector can be consulted to shape the design of performance measurement systems in NPOs. According to her findings, non-profit performance measurement systems could be strengthened if they were *'(...) relevant, integrated, balanced, strategic and improvement-oriented (...)'* (Moxham 2009, p. 752) – key characteristics that are advocated by the private and public sector literature. Furthermore, Moxham's findings cohere with Dart's impression that in order to demonstrate their achievements NPOs have to be *'more business-like in their operation and attitude'* (Dart 2004, p. 290). As youth club providers do not have any private sector counterparts, the author believes that it might be difficult to transfer business approaches on a one-to-one basis. To prove whether or not, further and more specific research has to be conducted.

From the wide range of existing private and public performance measurement frameworks, only some are actually adoptable to the needs of NPOs. According to Moxham (2006, p. 274), these are the Balanced Scorecard (Kaplan and Norton 1992), the European Quality Award that is assessed under the criteria of the European

Foundation for Quality Management (EFQM) excellence model and the Performance Prism (Neely, Adams and Kennerley 2002). Of the three, the Balanced Scorecard approach is the most popular framework adapted throughout the non-profit literature (Greiling 2009, p. vi). Regarding the penetration of these performance measurement frameworks within NPOs, Moxham (2006, pp. 272–273) found that there is a low penetration of existing private, public or non-profit sector performance measurement frameworks in voluntary and community organisations. This coheres with findings of Greiling (2009, pp. 240–249) who found that three quarters of the organisations surveyed, used self-developed measurement systems. Despite the prominent position of the Balanced Scorecard in non-profit literature, only one out of ten organisations actually used multidimensional approaches like the Balanced Scorecard or EFQM. This indicates that the actual practical state of development of performance measurement in NPO is behind the possessed assumptions in literature.

Extent of Current Measurement Systems in Use
Coming back to Moxham's findings (2006, p. 286), the development of performance indicators is most of the times dominated by external stakeholders and particularly funders of the organisations. Funders stipulate results from the organisations to see whether their money is spent for the right things or to guarantee future funding. The problem is that performance criteria that are stipulated by funders and, therefore, given from the outside of the organisation, do not always reflect the strategy of the NPO itself. In extreme situations this sometimes even leads to several internal measurement systems that operate in parallel (Radnor and McGuire 2004, p. 253). Additionally, Moxham found that when it comes to the current design of existing performance measurement systems in the non-profit sector, non-profit financial reporting is directly linked to public sector accountability and that *'(...) nonprofits may be forced to trade-off relevant performance measurement systems for the continuation of public sector funding'* (Moxham 2009, p. 753). As a result, a lot of NPOs only measure criteria that are directly linked to their funder's demands and neglect other important

performance criteria. According to Moxham, these stakeholder requirements are also responsible for the current detract of the systems as improvement tools. As youth club providers are also funded through public funds, future research will have to prove whether these findings are assignable to the context of youth club providers. This, at the same time, shows how important it is to involve stakeholders into the process of developing a performance measurement system for youth club providers to make sure to not strain already limited personnel resources any further.

The review of private and public sector literature (e.g., Cross and Lynch 1988; Kaplan and Norton 1992; Poister 2003) showed that through developing performance measures there is a direct linkage between the strategy of the organisation and its performance measures. Therefore, one could assume that the most meaningful performance measures of NPOs would be also directly linked to the mission, goals and objectives of the organisation. In contrast, the development of non-profit performance measures makes limited reference to strategy (Moxham 2006, p. 286, 2009, p. 743). In addition, the targets of the organisations are often formulated rather vague and imprecise and, therefore, are, if anything, a more general guidance than an operational target (Greiling 2009, p. 42). Part of this is due to the fact that at least throughout the public management literature, there are no universal distinctions among the terms mission, goals and objectives (Poister 2003, p. 58). Other reasons, beside the ones named before, could be the lack of strategic management implemented in the organisations and, therefore, the tendency to rather informal strategies which are not written down. Informal strategies of the organisations often lead to the problem that measurement frameworks which require a more strategic and formalised approach (like most of the business approaches) are excluded (Moxham 2006, p. 274).

Therefore, with reference to the current measurement systems in use, and in the context of a lacking formal strategy most existing performance measurement systems in the non-profit sector are characterised by their rather

reactive nature (Abraham 2007, p. 3). The focus of the systems is on the short term and most of them do not (yet) understand the importance of the relationship between performance systems and strategy (Radnor and McGuire 2004, p. 254). Furthermore, the systems function as tools for process managing but hardly provide any measurable benefits for their customers (Cairns et al. 2005, p. 148). Both Cairns et al. and Abraham argue that most of the systems used are primarily responses to external demands or changing circumstances and events but only few actually help to focus on customer orientation, effective goal achievement, or plan in advance. These statements support that performance criteria are determined by external demands at the moment and should rather be developed from the inside of the organisation. The author does not fully agree and, therefore, recommends future research to find out the extent of current performance measurement systems used in the specific area of open youth work providers and the direction in which these systems operate.

Sector-Specific Problems

Closely related to the issues named before are various other sector-specific problems, regarding the management of the organisations, the development process of performance measurement and the specific consequences of change management themes within NPOs. Merchant and van der Stede explained the aforementioned underdevelopment of management and control systems merely by three reasons. Firstly, non-profit managers historically have not been as well trained in management methods; secondly, they are challenged by tight resource constraints; and thirdly, they are faced with more difficult management and control problems (Merchant and van der Stede 2007, p. 789). Especially the first notion needs further attention, since the contemporary education of social workers does (if marginally) cover social management themes and poor training is not obvious. What Merchant and van der Stede might broach is the fact that due to a lack of specific literature, non-profit managers need a high ability to transfer general business knowledge to their specific needs.

With regard to the developing process of performance measurement in NPOs, according to Poister (2003, p. 264), the process of developing performance measurement systems is similar for non-profit and public organisations. What is different is the effort that is needed for the development process. According to Poister, it requires much more effort for NPOs to develop a performance measurement system. This is due to the fact that besides the multiplicity of various and sometimes contradicting interests and demands of stakeholders which both (public organisations and NPOs) have in common; NPOs additionally face other challenges like the assignment of volunteers, a higher degree of autonomy of local chapters, a variety of funding sources and consequently a changing mix of grants for funding, as well as limited managerial and analytical resources to support the process of development. With reference to the development process Poister (2003, p. 265) found that despite these differences, both also face similar problems that need attention like problems concerning the information produced, time and effort required to implement and support the system, lack of subsequent use of the measurement system by managers and decision makers, lack of stakeholder support, internal resistance, undesirable consequences that might arise from putting certain measures in place; and possible abuse of the system. Further research will have to prove whether or not Poister's findings can be assigned to open youth work providers.

Other sector-specific problems in the context of change management themes are the fear of bureaucratisation as a threat to social values and commitment or as Letts, Ryan and Grossman stated to the point '*(...) nonprofit workers often view their work more as art than science. (...) every combination of circumstance, program, and professional effort is unique, and (...) analyzing and comparing them at any level is impossible*' (Letts, Ryan and Grossman 1999, p. 100). From the author's point of view the problems named above also apply to open youth work providers. Therefore, for future research it might be helpful to involve internal stakeholder demands and interests throughout

the development process of performance criteria and performance measures.

Conclusions and Directions for Further Research

This paper aimed to prove that there is a gap in the existing body of knowledge on performance measurement in youth club providers. It showed that there is a considerable amount of research done in the field of non-profit performance measurement but since the topic is relatively young and dynamic, a consensus on how to measure the performance is not yet achieved. Most of the reviewed literature was focused on NPOs in general but none set the specific focus on organisations that provide open youth work or youth clubs.

This literature review was mainly based on findings of Moxham (2006, pp. 82–84) who conducted research in the context of voluntary and community organisations and, therefore, in organisational types that are comparable to youth club providers. She found that the development of performance measurement systems is mainly influenced by the *context* of why the organisations are required to measure performance, the *criteria* of what they are required to measure and the *process* of how they will collect and feedback the required information.

For future research on performance measurement in the context of open youth work providers it seems most important to find out what good performance is in terms of success. As performance generally is a complex construct, Lebas and Euske advise that organisations should define a performance concept or causal model that applies to its own situation to actually create and define performance (2007, pp. 127–128). Nevertheless, if the focus of the causal model in youth club providers is set on output, outcomes, impacts, or effects with respect to further research, one of the first steps of measuring performance has to be the theoretical development of a causal performance model for youth club providers.

Figure 1 illustrates two potential conceptual models of performance in youth club providers. Through further research it is important to

confirm whether performance of a youth club provider is determined by external forces or, in other words, the stakeholders' demands towards the organisation (as shown on the left

side of Figure 1, Model I: Outside in) or/and from the organisation's internal motivation to achieve success (as shown on the right side, Model II: Inside out):

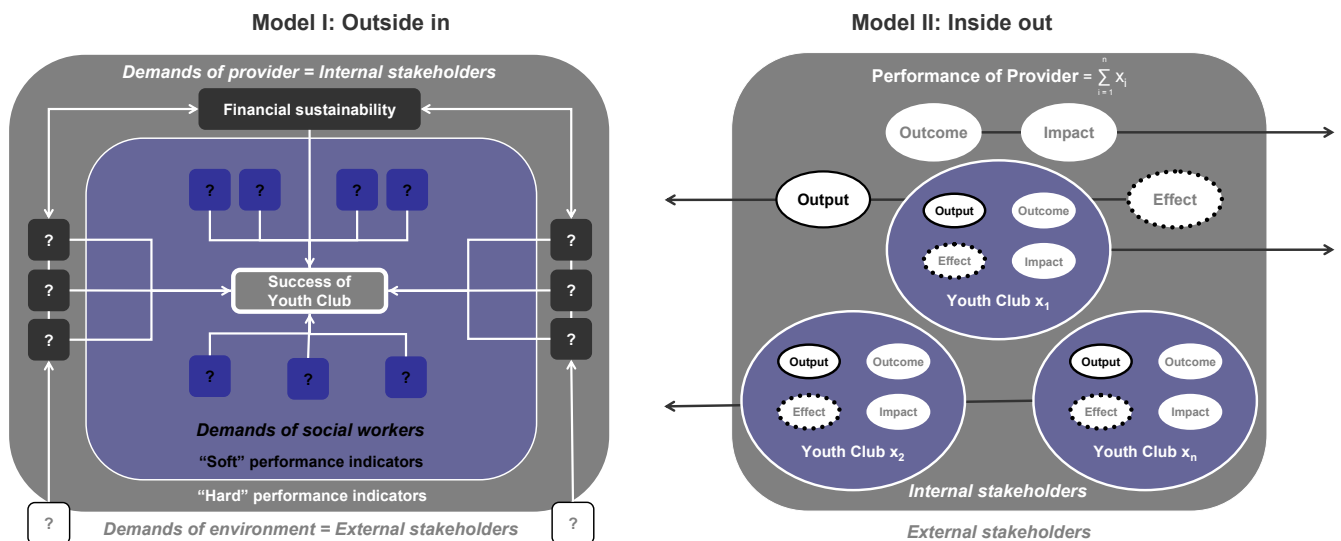


Figure 1 Conceptual Models of Performance of Youth Club Providers

As soon as the extent of performance of a youth club provider is determined, future research is able to focus on how to measure it.

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RELATIONSHIP BETWEEN SOCIAL INNOVATION AND PILLARS OF SUSTAINABLE DEVELOPMENT

Kálmán Kósi & Piroska Harazin

Abstract:

There are many of the fields where we see particularly severe innovation deficits, which are also great opportunities for new creative solutions. These deficits are gaps between what people need and what they are offered, these are gaps which are constantly widened by the emergence of new technologies and new scientific knowledge. The answers for these gaps, deficits become social innovations, which are solutions for the interest of society.

This work is based on the concept of the pillars of sustainable development, so the most important question that what kind of relationship is between the pillars of sustainability (elements of Triple Bottom Line) and the concept of social innovation. Based on the previous researches of the authors, the performance evaluation in micro level is also be emphasised, so the integrated approach of the performance evaluation is also introduced. Finally there is an examination of the relation between sustainable performance evaluation and social innovation.

Reaching the aims of the work authors use literature review, however own analysis and conclusions are also represented. There is a primer research, which represent the opinion of different representatives of companies about the relation of social innovation, pillars of sustainability and sustainable performance evaluation.

Key words: Social Innovation, Triple Bottom Line, Sustainability Performance Evaluation

Introduction

The concept of sustainable development – which meets the needs of the present without compromising the ability of future generations to meet their own needs – with the pillars – environmental, social and economic – is destined to be a solution in a world which is famous for news about economic crisis, poverty and melting icebergs. But it is true that the concept is not enough, there should be actions behind the concept. There are four challenges of sustainability and the answers for four challenges can be the actions behind the concept. But answers have different relevance in case of these challenges.

Aim of the paper to introduce one of the

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answers for the challenges; and examines its' relation with the challenges. So, concept of social innovation will be introduced with a help of literature review, and relationship between the pillars of sustainability (elements of Triple Bottom Line) and the concept of social innovation will be analyzed.

Based on the previous researches of the authors, the performance evaluation in micro level is also be emphasised, like another answer for sustainability challenges, so the integrated approach of the performance evaluation will be introduced. Making connection between the two examined answers, the relation between social innovation and integrated sustainability performance evaluation will be emphasised.

Authors use literature review; however a short analysis and conclusions are also represented. There is a primer research, which represent the opinion of different representatives of companies about the relation of social innovation, pillars of sustainability and sustainable performance evaluation.

Social Innovation

There are many fields where we see particularly severe innovation deficits, which are also great opportunities for new creative solutions. These deficits are gaps between what people need and what they are offered (or sometimes these gaps represent different social, global problems), these are gaps which are constantly widened by the emergence of new technologies and new scientific knowledge. The answers for these gaps, deficits become social innovations, which are solutions for the interest of society. Of course parallel with social innovation, technological, scientifically innovation also can be mentioned, because the answers require technological, scientifically solutions. [1]

Understanding social innovation it is necessary to get to know and interpret the concepts of social innovation and the common characteristics or differences between these concepts, definitions with the help of literature review. However it is important to mention that there is not much literature about – concept and use of – social innovation, in spite of that available literatures show wide spectrum of time. Literature review of the authors shows that a book about social innovation in 1983 was written– exactly about economic point of view of social innovation (Jonathan Gershuny: Social Innovation and the Division of Labour [2]) – however today’s databases doesn’t contain too much literature about social innovation (of course voluntary chosen databases were examined without claim of completeness).

Although it is important to emphasise the role of the civil sphere in opinion forming, because there are many international and national organizations, associations, foundations (The Young Foundation, Stanford Social Innovation Review, Center for Social Innovation, Kreater Social Innovation Labour (Hungarian one)), which deal with the concept and achievement of social innovation, and publish different statements, articles, guidance.

There are many types of innovation, so the business, social and cultural innovation is also mentionable. However the so-called business innovation is generally defined like the generator of human well-being, there are other innovations which also can effect social performance. In case of these other innovations the expression of ‘business innovation’ cannot be used. In this case the concept of social innovation has to be introduced. However there is a question that is it a buzz word or a passing fad which is used by academic world or just a critical type of innovation? [3] Pol and Ville tried to answer this question in their work, where they collected many of the definitions of social innovation, made a comparison between these definitions and finally came up with their own definition. [3] Authors of this work summarize the concepts used by Pol and Ville in Table 1. This table contains other findings as well which was collected and analyzed by the authors. Main aim of this examination is to get overall picture (panoramic view) about the meaning and definition of social innovation.

TABLE 1. Definitions of social innovation according to Pol and Ville [3].

Source: Own work according to [3]

	Source used by Pol and Ville [3]	What is social innovation?	Opinion of Pol and Ville
1	Brian Martin [4]	The social innovation is the prime mover of institutional change and the biggest obstacle is the resistance by vested interests.	
2	Hamalainen and Heiscala [5]	Hamalainen and Heiscala accept Keynes’ idea which emphasises that in institutional changes the ideas should be stronger than vested interests. In connection with the definition of social innovation, they examine two ways. The first one is the oblique way, where social innovation is a result of new ideas and new kind of social structures, and asks the question, what is the role of institutions in this result-production. The definition is oblique because it is not clear that social innovation includes all types of new ideas or different new kind of social structures. According to the explicit way, social	Social innovation means the changes in the normative, regulative and cultural structure of the society, which result improvement in either the quality or the quantity of life.

		innovation is the accumulation of the five ideal type of the innovation (technological, economic, regulative, normative and cultural). This is completed by the fact that real social innovation means the changes in the normative, regulative and cultural structure of the society, which changes can strengthen and improve the economic and social performance of society.	
3	Young Foundation [6]	Social innovation is a new idea, which results goals which produce advantages for society. However social innovation also means the summary of innovative activities and services, which are motivated by the produced social advantages, and it is developed and diffused through organization whose primary purpose is social.	According to Pol and Ville there is problem with the definition, because according to the definition social innovations' primer aim is social, while profit oriented organizations also have social aims, by compiling (respect) with norms, requirements. So every new idea comes from profit oriented sphere, which has an effect on society, counts to be social innovation. Finally every business innovation is social innovation. In spite of interpreting problems, according to this definition, the social innovation results improvement in either the quality or the quantity of life.
4	Centre for Social Innovation [7]	A "simple working definition: Social innovation refers to new ideas that resolve existing social, cultural, economic and environmental challenges for the benefit of people and planet. A true social innovation is system-changing – it permanently alters the perceptions, behaviours and structures that previously gave rise to these challenges. Even more simply, a social innovation is an idea that works for the public good."	Opinion of Pol and Ville is that this definition is fuzzy, because they cannot interpret the meaning of public good: is it benefit of people or of planet.
5	OECD LEED Forum on Social Innovations [8]	"Social innovation seeks new answers to social problems by: identifying and delivering new services that improve the quality of life of individuals and communities; identifying and implementing new labour market integration process, new competencies, new jobs, and new forms of participation, as diverse elements that each contribute to improving the position of individuals in the workforce." There is an achievement a kind of claims which are not supported by the market, than these are in connection with humans' work. The definition also represents the integration of social responsibility and local developments.	According to Pol and Ville the delimitation of the market is not really good in the definition, because if later the market has a role, the innovation cannot be social according to the definition.
Pol and Ville define many overlapping points in examined definitions; these are the institutional change, social purposes and public good. Finally Pol and Ville also create a definition for social innovation: "Innovation is termed a social innovation if the implied new idea has the potential to improve either the quality or the quantity of life. Examples of innovation that fit nicely with this definition abound: innovations conducive to better education, better environmental quality and longer life expectancy are a few." [3]			

Stephen Huddart examines the practical side of social innovation, and defines the 12 principles of social innovation by analyzing different existing, practical examples, and making conclusions. According to Huddart social innovation is a new point of view for complex problems. Social innovations does not just mean the new ideas, but the new ways of seeing,

thinking, and working, which reframes a problem and realigns resources to address the problem more effectively. [9]

In spite of that Pol and Ville (2009) also mentioned the definition of the Young Foundation, it is important to separate this used concept and other works of the Foundation, because many of their statements and studies are about social innovation. Geoff Mulgan in

one of the studies of the Foundation writes, that “innovative activities and services that are motivated by the goal of meeting a social need and that are predominantly developed and diffused through organizations whose primary purposes are social.” [1]

David Bornstein raises questions in his work – which is according to New York Times, a Bible in the field – like what is the practical role of that innovation process, which has an opportunity to change the world. *How to Change the World* is about different case studies about social entrepreneurs and new ideas, and examine how the poverty can be reducible, how health services can be extended into the whole world, how right education can be available for all children in the world. This work shows a solution which can be unbelievable, but we can change the world with innovations which are made on behalf of society. [10] Bornstein mentions in his work, that the case studies are not about market, sustainability or efficiency, but about people, who have enough talent to make something good on behalf of others, solve problems across bounders, or across cities, countries or the world. [10] In spite of there is no exact definition for social innovation in the work, and Bornstein uses the concept of social entrepreneurs, many characteristics, aspects can be found which can strengthen the before mentioned definitions of social innovation. The literature states that social entrepreneurs are entrepreneurs whose activity shows that how management and business practices can be transformed to reaching social results. According to Bornstein social entrepreneurs is the concept about people who cannot say no and always search the answers for the problems by the help of their new ideas. [10]

A Stanford Social Innovation Review, which is an award-winning magazine and website, offers cross sectoral solutions for global problems. There is no exact definition for social innovation on the webpage, however there are many fields and aspects of the above mentioned social entrepreneurs. [11]

Centre for Social Innovation has an emphasised attention to interpret the definition. However the approach of the Centre was mentioned in Table 1, it is necessary to mention separated. Social innovation means the answers for different challenges, so try to find solutions by

new ideas, for social, cultural, economic and environmental challenges. According to the Centre the social innovation can come from individuals, groups or organizations, and can be placed in for-profit, non-profit or social sector too. In generally there is an increasing tendency when social innovation is achieved in the gap between these three sectors. This interpretation – the gap between the sectors – appears in the work of the Centre, because they generate these gaps, to catalyze and promote the social innovation. [7]

Main aim of the literature review is to understand the concept of social innovation and also to examine the common, main characteristics. According to the authors these characteristics can be mentioned like common, general specifics, so social innovation: results (structural, institutional) changes ([4]; [5]; [7]; [10]) comes from new ideas ([5]; [6]; [7]; [9]; [10]) results advantages for society, results the public good (all of the above mentioned literatures).

Challenges of sustainability

This work is based on the concept of the pillars of sustainable development, so the most important question that what kind of relationship is between the pillars of sustainability (elements of Triple Bottom Line) and the concept of social innovation.

The concept of sustainable development – which meets the needs of the present without compromising the ability of future generations to meet their own needs – with the pillars – environmental, social and economic – is destined to be a solution.

It is important that the environmental protection has already crossed the threshold from being a technological problem to becoming an economic challenge and opportunity in business life, which requires planning, organizing, leading and controlling from corporations. Sustainability management which is – on the one hand – an institutional issue can integrate the social and economic aspects in the conventional business management processes which is – on the other hand – the functional issue of sustainability management. Institutional issue means that sustainability management is an organizational

structure within the business enterprise to achieve several functional issues [12].

Proving the attendance of the three pillars there are challenges defined for organizations to reach sustainability. Sustainability managements' role is to answer these challenges by the help of different concepts, methods, instruments, which are in the toolbox of sustainability management. First challenge is the ecological challenge, which's aim is to reduce the environmental impacts caused by corporate actions, and to improve the ecological effectiveness of these actions. Second challenge is the social challenge, which takes into account and reduces the social impacts of corporate actions, and another aim is the improvement of social effectiveness. The third challenge is called 'economic challenge to environmental and social management', which challenge increases the eco-efficiency and improves the social efficiency. Furthermore this challenge is in connection with profit oriented business operations, so in this challenge economic purposes (increase the value of the business, make profit, minimize operating costs) are combined with environmental and social point of views There is one more challenge, the fourth, the challenge of integration. This challenge means the simultaneous treat of the above mentioned three and also means the methodological integration of concepts and tools of environmental and social management in conventional, economically oriented management. Summarizing the importance of three pillars of sustainable development in case of management, business actions, "the aim of sustainability management is an integrated approach to ecological, social and economic aspects". [12]

Social innovation and sustainable development

It is interesting that in some definitions of social innovation advantages of social innovation are not advantages just for society. So, it can be interesting to concentrate on these definitions which mention other challenges too, in which case social innovation can be an answer, solution. For example in the definition of Centre for Social Innovation there are many of the challenges. There are environmental, economic, cultural and social challenges, which together can cover the challenges of sustainable development – however integration challenge is not mentioned directly. Huddarts' definition converges with resource usage to the environmental challenge, and with the efficiency to the economic challenge. In the interpretation of Pol and Ville there is also the environmental challenge, because they write about improvement of environmental quality, however in the context this type of social innovation is rare. Authors can summarize that in the definition of social innovation there are the pillars, challenges of sustainability, sustainable development can appear, however henceforward the social aspect is elemental and should be emphasised.

The before mentioned statements are represented in Table 2, which is based on the logic of Schaletgger et al. [12] (In the referred literature there is an examination of different management concepts and tools according to the relationship for sustainability challenges. There are three types of this relation: no relation, partly oriented, or largely oriented. Authors use the same logic in Table 2.).

TABLE 2. Social innovation and sustainability challenges

Source: Own work

	Challenges			
	Ecological	Economic	Social	Integration
Social Innovation	partly oriented	partly oriented	largely oriented	partly oriented
Comment	In some definitions the ecological challenges like the aim, result of social innovation are exactly mentioned.	The social and environmental activities have economic efficiency in the market.	This is the basic aim.	The definition of social innovation can be a concept which integrates the economic and environmental pillars into the social pillar, like the conditions of social challenge.

Social innovation and performance evaluation – question of the authors

As the authors' previous researches also show, authors are really interested about the tool of organizational performance evaluation. For authors there is an interesting question, namely: can the integrated sustainability performance evaluation (and reporting) be a social innovation? To answer the question authors firstly introduce the main characteristics of integrated performance evaluation model and secondly try finding common points between the main peculiarities of social innovation and integrated sustainability performance evaluation.

Integrated internal sustainability performance evaluation

Based on the previous researches of the authors, the performance evaluation in micro level is also be emphasised, so the integrated approach of sustainability performance evaluation, which is defined by authors, is also will be introduced.

Previous researches of the authors – made by the help of literature review and modelling – that organizations have to account with the value of new capitals in the age of knowledge, environment and society based economy. These new capitals are defined like success factors, and because of theses' value, these should be measured, evaluated and integrated into the

decision-making. These capitals are: the environmental, social and intellectual capital. These capitals are new, so the traditional evaluation in these cases is not available. The traditional financial evaluating models measure the past events, and don't measure the ability of the investment to these future value-maker capitals. There is a need for methods of environmental performance evaluation, performance evaluation on social responsibility and need for evaluation of intellectual capital by new, up-to-date methods of performance evaluation.

Considering the necessity and importance of environmental, social and new, up-to-date performance evaluation, authors find the opportunity of common, integrated internal evaluation of sustainability performance. The next model (Figure no. 1.) shows the system of the integrated evaluation which was made by the authors and was leaned on different national and international literature reviewing and primer modelling. For the integrated evaluation it is necessary to collect all of the relevant, suitable indicators which are created by the different evaluating methods. It is not enough to use only the indicators of traditional performance evaluation, accounting for evaluation, it is necessary to collect the measuring and evaluating indicators of environmental, social performance and intellectual capital. It is necessary to evaluate these together, in the same time, because the organization has to account with the value of

these capitals too in the age of knowledge, environment and society based economy. [16] At the bottom of the figure there are 'smaller' integrations, which are sometimes yet existing methods. One of these is the GRI – Global Reporting Initiatives – which offers different indicators for measuring and evaluating the sustainability of the organization. It contains economic, social and environmental indicators too, so there is a suggestion in the system for the usage of Performance Indicators, which give comparable information on the economic, environmental, and social performance of the organization. The second one is the BSC – Balanced Scorecard – which is the most known method for evaluate intellectual capital. This method is also based on indicators which are defined in different aspects. The Balanced Scorecard brakes down the strategy into exact objectives and indicators, and manage them, evaluating the performance according to four different perspectives: traditional financial perspective, perspectives of customers, internal business processes, learning and growth. [13] BSC is a complex performance evaluating system, so it is able to join the different fields of corporate performance, in this way the BSC it is good to measure the environmental activities and activities in connection with social or stakeholder responsibility too. For example Harangozó suggests the implementation of environmental, social aspect to the scorecard system, and call it Sustainability Balanced Scorecard (SBSC). [14] [16]

As the use of indicators was a common characteristic, a suitable set of indicators can help for organizations in evaluating and monitoring, reviewing in an integrated level. There are many tools to help for organizations in evaluation. These tools are available for different type of organizations and many of these are existing methods, so the integration of these methods is also usable for different types of organizations in practice.

Relations between social innovation and performance evaluation

Examining the relation between social innovation and integrated sustainable performance evaluation it is really important to find common characteristics and connecting points. Authors made a literature review about the meaning of social innovation, which was introduced before, however a literature review about the main characteristics of social innovation also was made. Whole results of this review won't be represented in this paper, but the connecting peculiarities, characteristics of social innovation will be introduced. Introducing the relationship between social innovation and performance evaluation, the common points are shown in Table 3. Table 3 contains the before mentioned peculiarities of social innovation and a comment that how these are in relation with integrated sustainability performance evaluation.

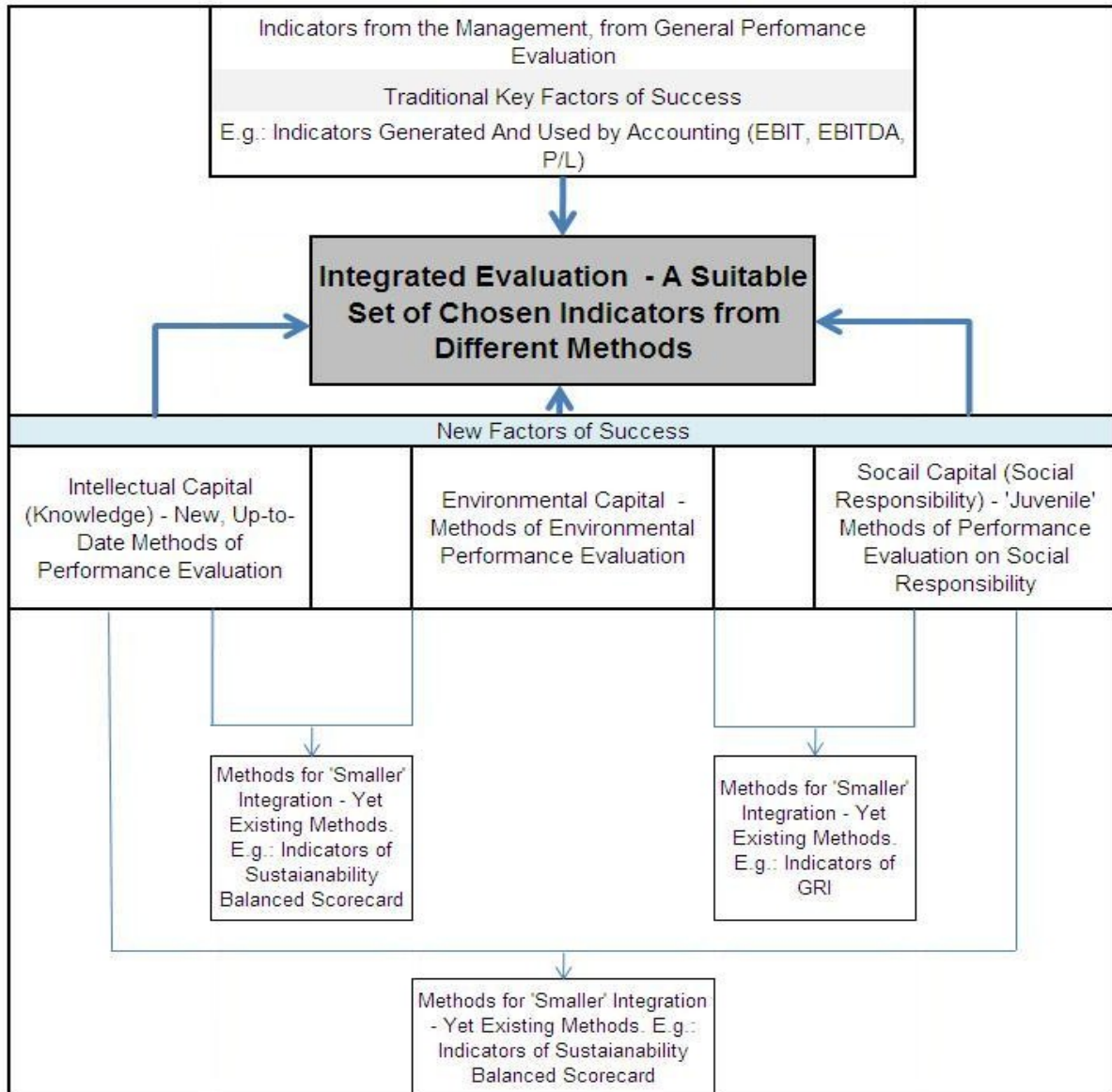


FIGURE 1. Model/logic of integrated performance evaluation

Source: Own work [16]

TABLE 3: Connecting points between social innovation and integrated sustainability performance evaluation. Source: Own work

Peculiarities of social innovation	Comments about the relation with integrated sustainability performance evaluation
According to Mulgan one of the dimensions of social innovation is that these innovations 'are usually new combinations or hybrids of existing elements, rather than being wholly new in themselves'. [1]	Model of integrated sustainability performance evaluation, which was prepared by authors, contains many of yet existing methods from the toolkit of performance evaluation, so it can be pared with the peculiarity of social innovation which is about 'hybrids'.
Other key dimension is that social innovation is putting the results 'into practice involves cutting across organisational, sectoral and disciplinary boundaries'. [1]	There is also a connecting point between social innovation and the model, because both cutting across organisational, sectoral and disciplinary boundaries' The model requires that integrated and not focused approach will be used.
There are three lens of social innovation which can help understanding social innovation and with the adaption one of these lenses can help understanding how changes happen. The first lens is the individuals, the second is the movements and the third is an organization. [1]	There are connection between the model and two of social innovation's three lens. Role of individuals is important during the performance evaluation, because performance evaluation should transpierce the whole organization. And this is the second connection, the organizational lens.

There are 12 principles which are guidance to achieve effective work in the field of social innovation. In this case, really important ones:

principle: 'Work at scale requires long time lines and strategic intent.'

principle: 'Strategy is phase and scale dependent.' (Just in time – it is not dependent that in which part of innovation what kind of tool is used.)

principle: 'Listen to the system.' (By the help of innovation surprises unfold.)

principle: 'Reflect.' (Is helpful in documenting decisions taken and linking current strategy to larger purpose.)

principle: 'Trust is essential.' (It is based on commitment to public good, transparency and accountability.)

principle: 'Learn to work across sectors.' (Inter-sectoral collaboration is rich resource of innovation, for example learn to solve language and cultural differences.)

principle: 'Commit to social inclusion.' (Inclusion of vulnerable population)

principle: 'Set minimum specification' (...when working at multiple places, and levels, allowing partners to adopt.)

principle: 'Share information.' (Being opened for new information and relationships: academic and practical co-operation.)

principle: 'Work with diverse professionals.' (Complex problems should be solved with complex approach.)

principle 'Effective use of the media' (Helps communicating and formulating.)

principle: 'Acknowledge the personal dimension.' ('We cannot change any problem unless we accept our own role in it. Humanizing one's adversaries is a key to overcoming conflict and brings us closer to collaboration.) [9]

There are several connecting points between 12 principles of social innovation and the model. The first principle (need for strategic intent) is in the model too, because it builds new elements into the performance evaluation, and with this, emphasises the strategic importance of these elements.

Step by step and just in time logic is also important in case of the evaluations' process. According to the model, in different places, in different connecting points, different tools should be used. This is second principle.

Third principle is about advantages of social innovation, and advantages also are in connection with performance evaluation.

The fourth principle, the reflection, is mainly an expectation from the process of performance evaluation.

Trust in fifth principle and learning in sixth principle, are also important in case of performance evaluation.

Ninth principle is also important in case of the model, because for a good integrated evaluation it is essential to share information. Cooperation from this principle is also important, because the model is tested in theory (academic way) and in the future will be verified, used with, the cooperation of practice.

Tenth principle represents the variety, heterogeneity which is also a characteristic of the integrated model.

During the examination, authors found a new question in connection with the relation. Recognizing the meaning of the social innovations' concept, authors ask the question how the efficiency of social innovation activities can be measured, evaluated. Just starting the answer, this question can be really important, because evaluation of intellectual capital contains the evaluation of innovations too. (Many of the definitions of intellectual capital express that intangible values are part of intellectual capital, and innovative behaviour is also an intangible value. However the method of IC Index contains exactly the viewpoint of innovation, because for the evaluation defines three sub-capitals under the whole picture of intellectual capital: relations, human capital, infrastructural capital, and capital of innovations. [15]) If innovation is a part of intellectual capital, it can be evaluated with the help of new, up-to-date performance evaluation methods. So social innovation can be build into the system of integrated approach of performance evaluation. If organizations make an activity and

reach results in the field of social innovation, they should measure and evaluate the effectiveness and should evaluate by the help of integrated indicator based approach. This integrated evaluation is possible in case of social innovation, because the viewpoints of sustainability appear during the social innovation process, because social innovation and pillars of sustainability has strongly connecting points.

Interesting practice

Reaching the aims of the work authors use literature review, however own analysis and conclusions are also represented. There is a primer research, which represent the opinion of different representatives of companies about the relation of social innovation, pillars of sustainability and sustainable performance evaluation.

A short asking was prepared and conclusion could be defined about the internal and external evaluation. Representations of a big organization were asked and a consultative also was asked, who

comes from a small sized consulting organization. This primer research can't be representative; however the results can be interesting and can be used because these represent the opinion of extremes – a big, experienced company with relevant results in the market (evaluated by CDP, DJSI, oekom, CSR 24/7, Roberts Environmental Centre, Goldman Sachs, Lazard etc.) and a small, beginner environmental consulting company.

According to the opinion of big companies' representatives, social innovation is a kind of new service, product, process, which has a new character for society, and has a favourable role in the field of sustainable development. Representatives said social innovation and sustainable development can be connected by sustainable consumption. For the question that sustainability performance evaluation and reporting can be a social innovation or not, they said that performance evaluation and reporting can be social innovation, but there is not exact, obvious relation.

The consultant said that social innovation is such an improvement, which is for society and makes benefits for society. Mentioned, that social innovation should concern with the three pillars of sustainability, because sustainable development is an interest of society. During the social innovation activities, so during the improvement, all of the pillars of sustainability should be take into account, however it is important to put the emphasis of improvements into the fields of pillars. According to the consultant sustainability performance evaluation and reporting can be a social innovation.

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Conclusions

There are different fields in our economy where different needs should be satisfied. Social and environmental points should be integrated into the life of business, because one of these needs is the responsibility of economy. One answer for the need can be the social innovation, which was presented by the help of literature review in the paper. Other answer can be the integration challenge of sustainability that how pillars of sustainability can be integrated into general business life. Therefore integrated sustainability performance evaluation was introduced in the paper. These two answers also were pored in the paper and relationship between social innovation and challenges of sustainability; and relation of social innovation and integrated performance evaluation model were examined.

Like a conclusion, authors found that social innovation can be an answer for sustainability challenges and also found connecting points between social innovation and integrated sustainability performance evaluation model. What is really important that at finally authors rough out the opportunity of performance evaluation of social innovation, and found that if organizations make an activity and reach results in the field of social innovation, they should measure and evaluate the effectiveness; and should evaluate by the help of integrated indicator based, sustainability performance evaluation model, because the viewpoints of sustainability appear during the social innovation process, because social innovation and pillars of sustainability has connecting points.

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MODEL OF THE BASIC RELATIONSHIP BETWEEN EXTERNAL SUSTAINABILITY REPORTS (SUSTAINABILITY INDEXES) AND INTERNAL CORPORATE SUSTAINABILITY PERFORMANCE EVALUATION

Piroska Harazin & Kálmán Kósi

Abstract:

Corporate sustainability performance can be measurable, evaluable and reportable with the help of different methods, indexes, which are external sustainability reports for evaluation, prepared by external interested parties – for example the most famous one, the Dow Jones Sustainability Index.

Internal interested parties also have opportunity for evaluation of sustainability performance, with traditional methods or new, up-to-date methods of performance evaluation.

One aim and result of this paper is the introduction of the main methods of the globally used external sustainability evaluation and reporting, and the introduction of the integrated approach of internal sustainability performance evaluation, by international literature review and with the help of primer modelling.

However, the main result is a model about the basic relationship between these external and internal evaluating, reporting methods, with an aim to find the common and different characteristics, aspects and points of these methods by primer analysis which is supported by additional primer research – interviews with representatives of different Hungarian companies, which have external and/or internal sustainability performance evaluation and reporting.

As a conclusion and result, the paper summarizes the theoretical and practical – common or different – aspects of external and internal sustainability performance evaluation and reporting.

Keywords: *Sustainability Performance Evaluation, Dow Jones Sustainability Index, Sustainability Reports*

Introduction – background

In our days there are many of the challenges which should be reached by organizations to ensure their long run competitiveness and also the responsible, sustainable business. Concept of sustainable development – which meets the needs of the present without compromising the ability of future generations to meet their own

needs – with the pillars – environmental, social and economic – are destined to be a solution in a world which is famous for news about economic crisis, poverty and melting icebergs. But it is true that the concept is not enough, there should be actions behind the concept. Furthermore these actions have to concern the complex system of ecology-economy-society, so the concept has to be integrated into the entire sphere of life, it is a component of politics, society and economics.

Sustainable development became officially important in the life of international companies in 1991 when the International Chamber of Commerce prepared the Business Charter for

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Sustainable Development which was accepted by the 2nd World Economic Conference in Paris. This Charter contained 16 basic principles which's achievement helps the companies improving their environmental performance, improving the used management tools, achieving the continuous measurement, review and evaluation processes and reporting in a correct way. [1]

Reaching these challenges continuous measurement and evaluation of the organizational performance is essential. As challenges are complex, the evaluation is also should be complex. The evaluation should be changed, because complexity cannot be measurable by the traditional financial evaluating methods. The financial models measure the past events, and don't measure the ability of the investment to future value-maker resources. The base of the changed evaluating methods is, a Performance Prism, which was developed by the workers of Canfield School of Management and Andersen Consulting.

The Prism is a performance management model, which build upon the existing evaluating methods, models, but also improve them. Shaping the model the most important factor was to take into account the flexibility, so the method could be able give closer and wider spectrums too, according to the claims of user. The model is able to fasten on whatever business activity and process, because it is able to evaluate from different aspects, be extensive and integrated to achieve the common thinking in organizational performance. [2] The Prism has three dimensions: the base is the Stakeholder Contribution; the top is the Stakeholder Satisfaction, and the sides: Strategies, Processes and Capabilities. The concept of the prism is to evaluate the performance by different point of views, which are the dimensions of the Prism. [3] In connection of this paper it is important to emphasise that the methodology of the Prism is based on the Contribution and Satisfaction of Stakeholders. This characteristic of the Prism can make advantages for organizations, in other word if the strategy and the evaluation of the strategy are based on stakeholder value, complex challenges can be reached. This

characteristic also comes through in case of sustainability, business sustainability too, because one of the factors of motive power of environmental oriented, socially responsible, sustainable business behaviour is the contribution and satisfaction of stakeholders. This impact, which comes from stakeholders, is called environmental pull-effect.

In business life, concentrating for the future, so planning of aims, goals and policy, is essential. In the toolkit of sustainability management different reports, statements can be the tools of concentration for the future, of planning of aims, goals and policy. However these reports, statements are prepared to reach the information claims of stakeholders, so these reports, statements are to inform stakeholders about the organizational sustainability activity (performance) by written information and also are to define the future aims, goals, and policies of the strategy. These help to communicate the sustainability performance for stakeholders – for internal and external interested parties.

In this paper there are two basic statements which are the bases of the work. The first one is the relation between the performance evaluation and reporting. This relation now is presented by the Global Reporting Initiative (GRI), which explains that reporting is to communicate the performance which was measured by different evaluating methods, especially by indicators. "The GRI Reporting Framework is intended to serves a generally accepted framework for reporting on an organization's economic, environmental, and social performance. It is designed for use by organizations of any size, sector, or location. It takes into account the practical considerations faced by a diverse range of organizations – from small enterprises to those with extensive and geographically dispersed operations." There is a suggestion in the system for the usage of Performance Indicators, which give comparable information on the economic, environmental, and social performance of the organization. [4]

The second statement is the orientation of the reports. In one way, reports are communication tools for internal or external interested parties, so the users of the reports are different. Another way is the producer of the report, because these reports can be made by external

(maybe independent third) parties, or by internal parties. Corporate sustainability performance can be measurable, evaluable and reportable with the help of different methods, indexes, which are external sustainability reports for evaluation, are prepared by external interested parties – for example the most famous one, the Dow Jones Sustainability Index. Internal interested parties also have opportunity for evaluation and reporting of sustainability performance, with traditional methods or with new, up-to-date methods of performance evaluation and reporting.

Aim of this paper is the introduction of the main methods of the globally used external sustainability evaluation and reporting, and the introduction of the integrated approach of internal sustainability performance evaluation, by international literature review and with the help of primer modelling. Next chapters will introduce today's statistics of the external evaluating methods, and also will introduce some of these methods. Internal integrated evaluation also will be presented. Finally the relationship between the external and internal evaluation and reporting also will be represented by the help of modelling and primer opinions.

External evaluation and reporting

One part of the aim of this paper is the introduction of the main methods of the globally used external sustainability evaluation and reporting methods. Firstly the universe of external evaluation will be presented, so common characteristics will be shown. While secondly, some of the most credibly and most well-known methods will be shortly introduced.

Universe of raters

External evaluation methods and the background organizations are called 'ratings' and 'raters' by SustainAbility. In our days there are growing number of rating, ranking, indices and awards that seek to measure, compare or reward corporate sustainability performance. Over the last ten years, there was a significant change in the rating space – new ones have

appeared and others disappeared, or have merged or realigned. There are several causes behind the growing, like for example the "increased awareness and acceptance of sustainable practices by corporations and their stakeholders, which in turn has created a growing market for information on corporate sustainability performance." [5]

There was a research made by SustainAbility, called Rate the Raters, to understand the universe of corporate sustainability ratings and to influence and improve the quality and transparency of ratings, raters. In the research they examined 108 ratings (only 21 of which existed in 2000), and also sampled the opinions of more than 1000 sustainability professionals. Realizing the characteristics of the main methods of these external evaluations and reports, it is important to emphasise some results from the research called Rate the Raters. The research defined three rating types and grouped the examined 108 ratings. There are ratings in the first type (70%), which are third-party rating organizations and evaluate the organizations by a predetermined methodology. Ratings which evaluate and select winners by a vote of one or more stakeholders are in the second type (21%). And third type is about the process when a sample of stakeholders evaluates the organization and the survey data is aggregated and packaged by ratings organizations (9%). The majority of the examined raters is in global scope (64%) and the remaining (36%) is regional and dispersed. One third (33%) of the raters uses solely public information, another one third (33%) uses solely submitted information and a remaining (30%) uses a combination of public and submitted information for the evaluation (4% is unclear). There were different issues in the focus of the examined raters. The majority (60%) takes a board sustainability/corporate responsibility approach, and there were some which have a focus on only environment (21%), or only on society (9%) or only on governance (3%) (9% is on other focus). According to the research almost the half (40%) of the ratings report the mixed version of performance (the measured value compared and evaluated) and transparency (just the measured value). One third of the examined raters measure just the

performance and the minority (7%) measure transparency solely (10% measure some other aspects). A quarter of the raters doesn't disclose the methodology of the evaluation, while the majority makes only partial disclosures and only few raters give sufficient information about the methodology. The independency of inputs, information is also interesting between the characteristics of the ratings, because only third of the raters cite input and advice from independent stakeholders and more than half of the ratings depend wholly or in part on information from companies. [6]

According to the opinion of asked sustainability professionals in the Rate the Raters research, there is a rank between different ratings, raters according to these's credibility. According to the research Dow Jones Sustainability Index, Carbone Disclosure Project (CDP) and FTSE4Good Index Series cited as well-known and considered most credible. Other 13 ratings mostly were unknown for sustainability experts so they can't evaluate the credibility. It is interesting that if they don't know these ratings well enough, how will other users fare? [6] Just to deep the introduction of these ratings, there will be shortly introduced two of the well-known methods, and one of the less known and credible methods. This short introduction is also a result of a secondary research, but will concentrate for Hungarian situation, because later a simple primer research will show more information in connection with external and internal evaluation.

Carbone Disclosure Project

Carbon Disclosure Project (CDP) is a global system for companies to measure, disclose, manage and share information in connection with climate change and water. The corporate environmental information supports long-run objective analysis year by year and support investors in decision making. It is important today because investors are concerned about

climate change and water. As climate change has an impact on environment, the global economy and financial market also have influenced. Climate change is a risk for investors, but it is important that at the same time the react for climate change is also an opportunity (will have a financial materiality on shareholder value). As according to investors climate change is a material risk or opportunity across their entire investment portfolios, they need information about climate change impacts. These information requests from shareholders encourage organizations to be account for and be transparent about environmental risks. CDP collect carbon and climate change information from more than 3000 of the world's largest companies, and also water information from 500 companies. Organizations are asked by two annual questionnaires, and the responses are available for parting investors, about the quality of disclosure and performance. [7]

The CDP methodology, the information request, is developed in consultation with stakeholders. The questions are covered five key areas: governance, risks and opportunities, strategy, emissions accounting, measuring and communications. Table 1 summarizes the content of the questionnaire of CDP, so the five areas are broke down in the table. [8]

There are different CDP reports, but the Central and Eastern Europe one was published firstly in 2009. The report of 2010 contains different statistics about countries and organizations. Just to narrow the scope, some Hungarian characteristics will be presented from the report. In the 2010 report 14 companies responded for the questions, and from the sample 5 were Hungarian companies, which is the highest number between the participant countries. Hungarian companies were leading respondents in 2009 and in 2010 too and in 2010 the highest response rate also was in Hungary (55,5%). [8] This rate maybe represent that companies in Hungary are opened for issue of environment and climate change.

TABLE 1: Content of CDP questionnaire
Source: Own editing according to [8]

Governance	highest level of responsibility for climate changes within the organization
	mechanism of reviews of the progress and status regarding to climate change
	overall management of climate change responsibility
	incentives for the management of climate change issues
Risk and Opportunities	process for identify significant risk and opportunities from climate change
	regulatory requirements in connection with risks
	physical impacts of risks
	regulatory requirements in connection with opportunities
Strategy	physical impacts of opportunities
	links between overall business strategy and actions taken on risks and opportunities
	emission reduction targets (expected changes over the next 5 years): target date, value of target; base year, emissions in base year
	achieved, planned actions to reduce GHG emission
GHG Emissions Accounting, Energy and Fuel Use, and Trading	engagement with policy makers
	reporting boundary
	methodology, protocol, standard for collecting data; calculation tools
	emissions in metric tonnes of CO ₂
	certificates associated with zero or low carbon electricity
	good, services enable GHG emissions to be avoided by a third party
Climate Change Communication	financial and activity-related intensity measurement
	other (not CDP) publication of responses to climate change or GHG emissions
	annual reports
	voluntary communication – e.g.: CSR report

Dow Jones Sustainability Indexes

Dow Jones Sustainability Indexes (DJSI) “were established to track the performance of companies that lead the field in terms of corporate sustainability. All indexes of the DJSI family are assessed according to the same Corporate Sustainability Assessment and

respective criteria.” [9] There are set of geographically focused indexed, and the European one (Dow Jones Sustainability Europe Indexes (DJSI Europe)) represents the performance of the top 20% of the largest European companies in the Dow Jones Global Total Stock Market Index (DJGTSM). Corporate [9]

TABLE 2: Dimensions and criteria in DJSI

Source: Own editing according to [9]

Dimension	Criteria
Economic	Corporate Governance
	Risk & Crisis Management
	Codes of Conduct/Compliance/Corruption & Bribery
	Industry Specific Criteria
Environment	Environmental Reporting
	Industry Specific Criteria
Social	Human Capital Development
	Talent Attraction & Retention
	Labor Practice Indicators
	Corporate Citizenship and Philanthropy
	Social Reporting
	Industry Specific

Sustainability Assessment uses criteria for evaluation to assess the opportunities and risks deriving from economic, environmental and social dimensions. There are general criteria for all industries during the evaluation, but there are specific criteria also in a certain sector. Criteria quantify the sustainability performance of a company by assigning a corporate performance score. The score helps to identify the leading companies in each sector. Used resources for the evaluation are from the corporate responses (online questionnaire), submitted documentation, policies and reports, publicly available information and direct contact with companies. There are independent third parties whose help the evaluation to ensure the quality and objectivity, and they verify the assessment. Table 2 presents the dimension of the DJSI dimensions and also the criteria. [9]

Oekom research

As was it mentioned one of the less known methods (according to the Rate the Raters research) also presented in this paper. This method is an arbitrarily chosen method from the universe of raters, which is the oekom responsibility report. This method provides investors with a basis for their investment decisions and provides companies with valuable

benchmark. oekom uses the world's most comprehensive collection of criteria for the ethical evaluation of companies (called Frankfurt-Hohenheim Guidelines). In the assessment there are three part of corporate' responsibility: the social sustainability (person affected by corporate activities); the cultural sustainability (society and culture); and the environmental sustainability (the natural environment). For the analysis there are a set of indicators, which can be used in different industry-specific cases too. The method use different type of information during the evaluation process, to strengthen the comprehensive picture of the examined company. There is information from the examined companies, and also from independent experts. oekom evaluates the company's documentation, especially annual and sustainability reports; makes interview with company representatives; makes media screening; makes interviews with independent experts; and also collects assessment from independent specialists from NGO's governmental and public institutions, business associations, research institutions, consumers protection groups etc. The assessment uses (social and environmental) criteria which are grouped into six areas. Table 3 contains the areas of criteria. [10]

TABLE 3: Areas in oekom research

Source: Own editing according to [10]

Social Rating	Staff and Supplier
	Society and Product Responsibility
	Corporate Governance and Business Ethics
Environmental Rating	Environmental Management
	Products and Services
	Eco-Efficiency

TABLE 4: Specialities of external evaluation methods

Source: Own work

External raters and ratings	measure, evaluate and make indexes.
	use information from different sources – information from the examined organization, from stakeholders and from external independent experts.
	emphasise all aspects of sustainability.
	have industry specific aspects.
	evaluate both performance and transparency.
	try being simple and use indicators.
	try covering the whole organization.

Common characteristics of external evaluating methods

Summarizing the conclusion about external evaluating methods, authors collected the common characteristics of these methods, which can be interesting in performance evaluation's point of view. CDP, DJSI and oekom research helps in this collection of characteristics, but the Rate the Raters research has a bigger role, because contains representative results about the universe of external evaluating and reporting methods.

Internal evaluation and reporting

Aspects of internal performance evaluation

According to a research, which was made in 2009 and 2010, in our days companies use the tools of sustainability management because of the need from society and demand of the market. The most used sustainability methods are the quality and environmental management systems, employee suggestion systems, environmental audits, and risk analysis. Even so it is real important to mention that according to the research less than half of the companies measure the effects of environmental or social activities on corporate success [11], although there are many methods and tools for environmental performance evaluation.

The environmental performance evaluation (EPE) is an essential tool for decision makers to support the decisions in issue of environment. The environmental performance is the measurable result of the management in point of environmental aspects. EPE is an internal, continuous management process and tool, which uses environmental indicators to make a comparison between the present and past environmental performance (EP) and the criterions of the environmental performance. There are many tools and methods for EPE, but the main point is the use of indicators. This is the first, real method of the evaluation. Organizations have to define enough and measurable indicators, which should reflect the operation and the volume of the corporation, and complexion and intensity of the possible environmental impacts. [1] The EPE also helps the recognition, implementation and check of the opportunities which have strategic importance.

According to different research made by the authors, in our days it is not enough speaking about just environmental performance evaluation. Organizations also have to evaluate the social performance or performance on social responsibility too. However there is a question that how the results of CSR activities appear in the measuring and evaluating processes, tools and methods, so how the CSR activity can be measured and evaluated. Reviewing the Hungarian and international

literature – like a secondary research – authors have found existing methods and tools for evaluation of CSR (e.g. CSR Self-Assessment Handbook from UNDP), and examined different methods that which and how can be able to measure social responsibility (the ISO 26000 Standard, environmental accounting, indicators, handbooks for Hungarian applications).

It can be summarized that there are several opportunity for organizations to measure and evaluate corporate environmental and social performance. But for authors it is not enough. For a whole picture of sustainability, economic pillar shouldn't be missed. There are many of traditional financial methods to evaluate traditional economic performance. Even so, authors' different researches explain that traditional financial evaluating methods are not enough to evaluate the real performance of corporations in information era, where the intangible, intellectual capital has become the factor of success. The financial model which is only for the industrial value measures the past events, and doesn't measure the ability of the investment to future value-maker resources. [13] There is a need for new, up-to-date methods to evaluate the real performance of today's organization. In these days, there are two ways of these new, up-to-date methods: the first one is the improvement of the traditional bookkeeping and financial system; and the second one tries to find this invisible value by examining the quality factors of it. [2] Sveiby prepares four categories of the methods: direct methods, methods based on market value, methods of return on assets and the scorecards. [12] Most known methods of the evaluation are the scorecard methods, which measure the performance from different aspect. Indicators are defined in scorecards, however it is hard to find the best indicators, because these should be measurable, enough, easy to define, cost-effective and be able to measure the performance time to time.

Integrated internal evaluation

Considering the necessity and importance of environmental, social and new, up-to-date performance evaluation, authors find the opportunity of common, integrated internal evaluation of sustainable performance. A model shows the system of the integrated evaluation which was made by the authors and was leaned on different national and international literature reviewing and primer modelling. For the integrated evaluation it is necessary to collect all of the relevant, suitable indicators which are created by the different evaluating methods. It is not enough to use only the indicators of traditional performance evaluation, accounting; it is necessary to collect the measuring and evaluating indicators of environmental, social performance and intellectual capital. It is necessary to evaluate these together, in the same time, because the organization has to account with the value of these capitals too in the age of knowledge, environment and society based economy.

Use of indicators is a common characteristic; a suitable set of indicators can help for organizations in evaluating and monitoring, reviewing in an integrated level. There are many tools to help for organizations in evaluation. These tools are available for different type of organizations and many of these are existing methods, so the integration of these methods is also usable for different types of organizations in practice.

Main characteristics of integrated, internal evaluation

With a same logic, like in case of the external evaluation, common characteristics of performance evaluation of internal methods can be summarized. It is important to mention that authors in this case use the integrated model as a base of this examination. The Table 5 contains the main characteristics of integrated internal performance evaluation, which is the base of internal reporting.

TABLE 5: Specialities of integrated internal evaluation

Source: Own work

Internal performance evaluation	integrated	measures, evaluates.
		uses internal information.
		emphasises all aspects of sustainability.
		has concentrated aspects in the industry.
		evaluates the performance and uses transparency preparing simple indicators for evaluation.
		really tries being simple and uses indicators.
		tries covering the whole organization.

Internal reporting

Defining the meaning of environmental, sustainability reports, statements, main characteristics can be emphasised. These are communication tools, which help sharing information with interested parties in connection with the organizational sustainable activity and these are prepared by the organization (that's why they are called internal reports). Just to mention the specialities of internal reporting, three are in the group of voluntary prepared internal reporting. First ones are the market oriented, voluntary environmental reports which are prepared to inform the interested parties about the really good performance of the organization. Public oriented voluntary reports are prepared to inform the interested parties about the effort of organization to reduce the negative environmental impacts. Third one is a management oriented report which is only prepared to help the decision-making really inside of the organization, with giving different sustainability performance information for management and for internal interested parties. [1]

Relationship between external and internal evaluation

Examining and summarizing (shortly) the main characteristics, specialities of each evaluating ways – external and internal evaluation –, the basic relationship between these external and internal evaluating, reporting methods can be visual. In both cases these methods measure and evaluate the performance, concentrate for all aspects of sustainability, are simple and use indicators and cover the whole organization. There are also some weakly connecting points too, so for example, external evaluation rather

evaluates the performance and the transparency too, while internal evaluation according to the authors evaluates the performance and uses transparency preparing simple indicators.

What is really important question and aim in this paper, to see the meaning of integration in the case of relationship between external and internal evaluation. According to authors integration can be useful in case of evaluation and reporting, but cannot be a simple overlapping, because of the weakly connecting points. Using the already available information from external or internal evaluation and reports, make the other process easier and faster. Or making comparison between the externally and internally prepared results, processes can be controlled, checked.

Situation in practice

After the literature review and primer modelling in the topic of external and internal evaluation and reporting, it is important to examine the field of practice in Hungary. As was it mentioned in case of CDP CEE, Hungary has an excellent role, with the rate of responses. Just with a help of a short review it can summarized that many of companies in Hungary also mentioned in the DJSI. Many of different internet portals mention, like news that big international companies, which have a site in Hungary, reach good places in the system of DJSI. Between these foreign companies we can find Hungarian one too. Examining the websites of these companies it can be concluded that all have an excellent role in sustainability activities. All of the examined organizations (9 organizations were selected by the authors and were examined) have a separated page for sustainability. All of these have a report or a statement which contains the

most important plans, aims and information about sustainability. The majority has activity in connection with climate change. As this short examination shows these organizations have a real active role in sustainability, also in connection with environmental and social pillar of sustainability. And also it can be summarized that these webpages and information are able to inform the interested parties, are able to give internal measured and evaluated information. The primer modelling in the paper should be supported by additional primer research therefore a short asking was prepared and conclusion could be defined about the internal and external evaluation. Representations of a big organization, which has an important result in DJSI in 2011, were asked and a consultative also was asked, who comes from a small sized consulting organization. This primer research can't be representative; however the results can be interesting and can be used because these represent the opinion of extremes – a big, experienced company with relevant results in the market (evaluated by CDP, DJSI, oekom, CSR 24/7, Roberts Environmental Center, Goldman Sachs, Lazard etc.) and a small, beginner environmental consulting company. The big company was asked about the different evaluating methods, and they answered that they have also an external and internal evaluation methods. They said that their reports – which are about the annual sustainability performance and are prepared for interested parties – are like the results of external performance evaluation. Sustainability summaries are made by the help of Global Reporting Initiative by the organization and are

audited by impartial third parties. There are many external raters whose also evaluate the organization, by methods which generally are unknown for the organization. They said that the external and internal evaluation cannot be separated; these have a really strong relationship. However they have own internal evaluation, they also use the results of external evaluation for internal informing – in the decision making, in the communication with employees or for example the external evaluation helps for management to find which part of the organization should be improved in a sustainability point of view. They said that between the external and internal evaluation there is a relationship and an overlap. But for the question that can it be integration between these evaluations or not, they said that these cannot be integrated. There are many similar aspects, but it cannot be integrated – because there is information which is just prepared for the internal decision making, which haven't got publicity.

The consultant was asked about that what the opinion is: is the external evaluation can be used as an internal evaluation. The answer contained that separated internal evaluation should be made, but these can a control of each other's and maybe draw the attention for huge reported differences.

There were common questions for the representatives of the big company and the small consulting company about the quality and speciality of evaluating methods and reports. They were asked about the characteristics of a good working evaluating method and reporting system. The answers are summarized in Table 6.

TABLE 6: The characteristics of “bests”

Source: Own work

	Big company	Small consulting company
Characteristics of a “best” evaluating method	cover all fields of organizational sustainability activities; understandable; clear and complete	exact, objective, is about all aspects of sustainability, is about the reality, is not false
Characteristics of a “best” reporting system	“Good reports are made according to GRI and a good structure, and are also continuously arranged with stakeholders.” Short, essential, readable	understandable and real; exact, objective, is about all aspects of sustainability, is about the reality, is not false

Summary, conclusion

As a conclusion and result, the paper summarizes the theoretical and practical – common or different – aspects of external and

internal sustainability performance evaluation and reporting. Conclusion of secondary research is reflected with the opinion of the authors, that with the common characteristics of external and internal evaluation, and also with the weakly connecting points, the integration between these methods can be useful. According to the opinion of the asked companies integration cannot be useful for organization; however they mentioned some opportunities about cases when these can be used in an integrated way.

According to authors the results can be advice for companies about separated and/or integrated evaluation, but they also think that at the final of the paper should make a feedback to the beginning. In the introduction stakeholder value based business strategy and process was emphasised, so during the conclusion making this aspect also should be take into account. Organization can think about integrated and/or separated performance

evaluation and reporting, while stakeholder has an own claim for information comes from evaluation and reporting.

According to Rate the Rates project NGO's are the most trustable to judge the organization's sustainability performance and organization employees are the secondly trustable reviewers. Rating and ranking organizations are only in the third place and journalist, consumers, investors and government are at the end of the list. [6]

Taking account this result, authors again advise the integration, but that integration, which contains the participation of NGO's and also of employees. These interested parties are also external and internal, these are emphasised participants of society, so we can say that this integration should result a socially based integrated (external and internal) sustainability performance evaluation and reporting.

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IS THE STUDENT FASHION SHOW DELIVERING ALL IT CAN?

Mariné Aghekyan, Dong-Eun Kim & Suzanne Marshall

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

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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:

Who is the audience attending the Campus Couture Fashion Show at CSULB?

What are the goals of the audience attending the Campus Couture Fashion Show at CSULB?

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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FINANCING OF PUBLIC INVESTMENT: A CASE OF AN ENTERPRISE ZONE

Eleonora Kontuš

Abstract:

Public finance is the traditional source of funds for investment in infrastructural projects. The inadequacy of public funds to keep up with the rising demand for infrastructural projects has resulted in private finance being considered for an increasing number of infrastructural projects that would normally have been procured with public funds. Under increasing public demand for higher levels of infrastructural services and insufficient public funds, attention has re-focused on alternative methods of financing. The purpose of this research is to explore challenges and opportunities for infrastructural development in the Republic of Croatia, the benefits of infrastructural development, sources and methods of financing infrastructural projects. The case study of the enterprise zone shows that close cooperation of state and local institutions with the private sector in financing infrastructural projects can result in benefits for all participants in this project. The research results indicate that there exists a direct link between infrastructural development and human welfare and economic development leading to an alleviation of poverty and improvement of the environment. The results of the research lead to the conclusion that Public-Private-Partnership in financing, as a method used in financing infrastructural projects, can result in benefits for state, local self-government and the private sector. The state can increase its revenue from taxation, especially from profits tax. Local government can increase its revenue from income tax and other public reimbursements, while the private sector can increase its profits.

Keywords: *public investments, public funds, private finance, sources of financing, economic development*

Introduction

Public financing is the traditional method of procuring infrastructure projects. While the role of the central government today is in the creation of a national infrastructure in order to make the state competitive internationally, the importance of local government is, above all, in the creation of an entrepreneurial infrastructure, transport and communications. Increasing pressure on the government budget worldwide has meant that public funds are no longer sufficient to finance all needed public investments and this is increasingly leading to the adoption of private funding for infrastructure projects. The growing demand for higher levels of infrastructure services has refocused attention on the use of private finance and public-private- partnerships

projects, rather than the traditional methods of public financing. Such projects would be severely delayed or perhaps would never be implemented if they were to wait for public financing from tax receipts.

The following base hypothesis is verified in this work: The financing of infrastructure development projects through public-private-partnership is acceptable from the aspect of the public and private sector as, through exploitation of such projects, sufficient cash flows to service debts and maintain a reasonable rate of return to the investors can be generated, along with expanding opportunities for employment, economic growth and development.

With the changing global trends on financing of public projects, this work concentrates on the rapidly developing methods of financing, where private finance is utilised. The paper deals with financial aspects of procurement of various infrastructure projects, the importance and benefits of infrastructure development and sources of financing infrastructural projects. The case study of the enterprise zone shows that close cooperation of state and local institutions with the private sector in financing infrastructural projects can result in benefits for all participants in this project. The research results indicate that growth and development in particular are functions of a good macro-economic policy framework, which facilitates capital flows to productive economic activities.

Financing infrastructure projects

As traditional methods of financing infrastructure projects have proved both inadequate and unsustainable, many countries have seen the need to look for alternative methods of financing and managing infrastructure projects. Methods used in financing infrastructure projects may be categorised as follows: public finance, off-budget debt financing, private finance and public-private-partnerships in financing.

Public finance

Public finance is the traditional source of funds for investment in infrastructure projects in most countries. Governments traditionally own, operate and finance nearly all infrastructure. Funds raised from taxation have provided all or part of the public finance required for infrastructure projects. Public financing is seen as an easy method of procuring infrastructure projects and is therefore the traditional and conventional approach to infrastructure development in most countries. Although much of the world's existing infrastructure has been financed by public sector, many countries now seek to procure infrastructure through the private sector.

Debt financing

Debt financing of infrastructure projects includes long-term and short-term loans from

banks and other financial institutions and financing through the issue of bonds. Debt instruments refer to the raising of term loans from banks and other financial institutions, debentures and bonds. Term loans are negotiated between the borrower and the financial institutions. Banks and financial institutions set their own internal exposure limits to particular types of project. Many banks specialise in lending to certain types of infrastructure projects for which they possess both technical and financial experience. A bond, like any other form of indebtedness, is a fixed income security. The holder receives a specified annual interest income and a specified amount at maturity. The difference between a bond and other forms of indebtedness such as term loans and secured debentures is that bonds are subordinate forms of debt as compared to term loans and secured debentures. There are some advantages of bond financing over traditional bank lending. Advantages of bond financing over traditional bank lending include:

Bond issues can have maturity of up to 30 years, whereas banks usually prefer to lend for a shorter period of time, depending on the type of project. Bond financing can reach a wider group of investors and can achieve a lower interest cost margin and longer maturity.

Bonds are attractive to long-term fixed-income investors because they are backed by the long term identifiable cash flows of a project.

Private finance

The concession or Build-Own-Operate-Transfer (BOOT) is a type of procurement strategy utilising project finance to fund infrastructure projects. The inadequacy of public funds to keep up with the rising demand for infrastructure projects has resulted in private finance being considered for an increasing number of infrastructure projects that would normally have been procured with public funds. Concession contracts have been developed to facilitate private financing of infrastructure projects on the build-own-operate-transfer basis. In a BOOT project, a project company is given a concession to build and operate a facility that would otherwise be built by the public sector. The concession period is determined by the length of time needed for

the facility's revenue to pay off the company's debt and provide a reasonable rate of return for its efforts and risks. The BOOT strategy is being hailed as the procurement strategy utilising project finance to solve governments' infrastructure funding problems.

The reasons why host governments adopt the BOOT project procurement strategy are: the use of private sector financing provides new sources of capital and reduces public and direct spending, the development of projects that would otherwise have to wait, the use of private sector capital, initiative and know-how reduces project construction costs, shortens schedules and improves operating efficiency, project risk and burden that would otherwise have to be borne by the public sector is allocated to the private sector. There is technology transfer through the training of local personnel and there is an opportunity to establish a private benchmark against which the efficiency of similar public sector projects can be measured, and the associated opportunity to enhance public management of infrastructure facilities. In BOOT projects the operator assumes responsibility for maintaining the project assets and operating them on basis that maximises the profit and minimises the cost on behalf of the promoter. It is important to recognise that the success of a BOOT project is based on providing an effective service to the client.

Public private partnership in financing

Public-Private-Partnerships (PPPs) are joint ventures in which business and government cooperate, each applying its particular strength, to develop a project more quickly and more efficiently than the government could accomplish on its own (Finnerty, 1996). Public-private financing structures differ in the manner in which the public sector and private sector entities share the responsibilities, risks and rewards associated with the projects.

PPPs have the potential to help meet the transportation and other infrastructure needs and various structures are available. Such

partnerships will be viable only if the risks and returns are properly allocated between the public sector and private sector entities involved. The private entities must be able to expect to earn rates of return commensurate with the risks they are being asked to bear. A wide range of techniques has been developed to allow the private sector to participate, with government, in the financing, procurement, operation and management of public sector utilities. These techniques are: project financing, built – operate – transfer, continuous franchise, built – transfer – operate, buy – built – operate, lease – develop – operate, temporary privatisation, wraparound addition, speculative development and use – reimbursement model.

Project financing is a technique of raising long-term debt financing for major projects based on lending against the cash flow generated by the project alone (Yescombe, 2002). It has gained importance because the concept has gradually evolved as a specific financing technique in which the project's lenders look only at the cash flows and earnings of the project as the source of funds for repayment of their investments, and not at the creditworthiness of the sponsoring entity. In project financing, a project is considered as a distinct entity, separate from the promoter and each project is supported by its own financial package, and secured solely on that project or facility. Projects are viewed as being their own discreet entities and legally separated from their founding sponsors. The entire financing of the project is dependent on an assured income stream from the project.

The most familiar form of participation is *Build, Operate, Transfer (BOT)*, where the private sector has the responsibility for financing, developing and operating the facility for a fixed period of time. Private entities receive a franchise to finance, build and operate the project for a fixed period of time, after which ownership would revert to the host government or some local or regional public authority. Ownership reversion would be planned to occur only after the private sector entities had received the return of, and a satisfactory return on, the capital they had invested in the project

(Finnerty, 1996). Private entities finance and operate under a *continuous franchise* from the host government. All the financial support for project is provided by private sector while the government regulates safety, quality of service and profits.

Using Built, Transfer, Operate techniques, private entities design, finance and build a project. They transfer legal title to the host government immediately after the project facility passes its completion tests. The private entities then lease the project facility back from the public authority for a fixed term. A long-term lease agreement gives the private entities the right to operate the project facility and to collect revenue for its own account during the term of the lease (Finnerty, 1996). Under Buy, Built, Operate techniques, a private firm buys an existing facility from the host government, modernizes or expands it, and operates it as a regulated profit-making, public use facility. Using Lease, Develop, Operate techniques, a private firm leases an existing publicly-owned facility and surrounding land from the host government. It then expands, develops and operates the facility under a revenue-sharing contract with the host government for a fixed term (Finnerty, 1996).

While all of these techniques allow government to provide large and costly infrastructure without the budgetary constraints, it has been argued that in overall economic terms the use of private finance in this way is more expensive over time than the use of public capital. The government continues to bear most of risks and potentially faces great costs. If PPPs aim to deliver high quality, cost-effective services to consumers and the government, there must be an adequate transfer of risk from the government to the private sector. The quality of services must be part of the contract, so that payments to service providers can be linked to performance, and the risk of costly contract regeneration may be minimized. There must either be competition or incentive-based regulations (Hemming and Ter-Minassian, 2005).

Development and financing of infrastructure in the Republic of Croatia

Economic realities in the Republic of Croatia have led to the need to augment available public finance with private funds in an attempt to keep pace with infrastructure development as the population aspires to higher levels of infrastructure services in recent years.

The challenges and opportunities for infrastructural development The Republic of Croatia faces an enormous challenge in meeting the infrastructure requirements of the population. The rapid population growth in the urban areas adds strain on existing infrastructure services and further compounds the problem. The challenge of financing and management of infrastructure projects is evident from demographic figures and trends. This challenge can be met by well-conceived and well managed projects with active participation of both the public and the private sectors. The government can keep up with the infrastructure requirements using the traditional public financing, but a key objective is for government to seek the active participation of the private sector in financing and management of the infrastructure projects.

We consider the adoption of innovative methods of financing and managing infrastructure projects as key to meeting the challenge of providing the infrastructure development projects. The government should realise the need for innovation and make efforts to create an enabling environment for private sector participation in the financing infrastructure to the population. Such participation is possible and sustainable only if the objectives of both the public and the private sectors are met, while providing users with quality infrastructure services at a competitive price.

Both quantity and quality improvements are essential to modernise and diversify production, help country compete internationally and accommodate the rapid urbanisation and there exists a direct link between infrastructure and development.

Infrastructure is an area in which government policy and finance have an important role to play because of its pervasive impact on economic development and human welfare. Providing infrastructure services to meet the demands of businesses, households and other users is one of the major challenges of economic development (Merna, 1998). The infrastructure development has strong impact on human welfare and economic development, reduction of poverty and improvement of the environment. Infrastructure has strong links to growth, poverty alleviation and environmental sustainability. The impact of infrastructure on growth is substantial, significant and frequently greater than that of investment in other forms of capital.

Adequate quantity and reliability of infrastructure are key factors in the ability of countries to participate and compete in international trade. The competition for new export markets is especially dependent on high-quality infrastructure. Appropriate logistical support provided by efficient transport and telecommunications infrastructure is essential for the Republic of Croatia wishing to compete in global markets or to participate in global sourcing. The efficiency with which infrastructure services are provided is also a key to realising potential returns. The availability of infrastructure services valued by users is crucial for the modernisation and diversification of production. Evidence from research has shown that growth and development in particular are functions of a good macro-economic policy framework, which facilitates capital flows to productive economic activities.

Methods of financing infrastructure in the Republic of Croatia

Traditional methods of public financing and management of infrastructure projects have failed to keep pace with the rising demand for infrastructure services. In recent years, Croatia has seen the need to look for alternative methods of financing infrastructure projects

such as debt financing through the issue of bonds, private finance as well as public private partnership in financing. Government should consider the adoption of innovative methods of financing and managing infrastructure projects as the key to meeting the challenge of providing infrastructure development projects. Under increasing public demand for higher levels of infrastructure services and insufficient public funds, attention should be re-focused on private finance for public projects. If growth rates in Croatia are to increase and be maintained at a suitable level, private sector funding must play a greater role.

A lack of public funds is the predominant reason for the private financial sector's involvement in local and regional investments and development projects. However, there are several other reasons for the involvement of the private sector in the financing of infrastructure and development projects:

- increased local and regional needs
- size of local and regional development projects
- inadequate structure of budget revenues
- limitations of debt financing at local and regional levels.

Local and regional economic development depends on a reasonable balance between the public and private sectors at the local and regional levels and the use of private sector methods in local and regional public management.

Infrastructure projects and services can be procured through concession contracts and its derivatives – Public-Private-Partnership, the private finance initiative as well as leasing. Public-Private-Partnerships (PPPs) can be defined as long-term contractual arrangements between the public and private sector entities for the purpose of providing public infrastructure and community facilities. Governments can consider PPPs as an attractive off-budget mechanism for financing infrastructure needs. The poor state of public buildings in Croatia suggests that the traditional procurement route for public and other buildings might be challenged with a new, purely contractual, PPP type of procurement.

The PPP procurement method requires the private companies involved to take long-term responsibility for public facilities, not only for the initial construction costs, but also for building operation and maintenance costs during its defined life. The PPP procurement method for public buildings requires involvement of private and public clients, and includes finance, design, construction, maintenance and operation of public buildings, infrastructure and services. The unsatisfactory state of public buildings and infrastructure in Croatia, due to lack of usable space, demonstrates that the traditional procurement route for public buildings, among others, might be challenged with a new PPP procurement method. The BOT model is an excellent example of a public-private partnership model used in Croatia in various infrastructure projects.

By using PPPs for infrastructure investments the public partner will have access to new skills, such as managerial skills and improved technology, that allow the project to be delivered on time. PPPs can also assure cost efficiencies that are the result of competition, risk transfer and innovation. Since the PPP type of procurement is very complex and implies long-term contracts and obligations, the need for optimal allocation and management of risks is obvious. The allocation of risks is an important advantage of PPP arrangements and the risk should be allocated to the partner which is best able to manage it and at the least cost. The advantage for the public sector is a reduction in capital demands on the budget for infrastructure development. Long-term contracts enable the private partner to recover the cost of the investment and to earn satisfactory profit. Service users can enjoy benefits from PPP through better services at a lower price.

Consequently, PPP models are becoming more and more applied for accomplishing goals set out by the governments, local authorities and other public sector entities. Budget restraints have often been a drive for public sector officials to procure projects by using the PPP model. PPP is now used in a variety of sectors and one of the PPP models

applied is Private Finance Initiative (PFI). Under PFI schemes, privately financed contracts for public facilities and public works are paid by a public authority and not by private users. Through the case study of an enterprise zone, the main reasons, benefits and obstacles for application of the PFI model will be emphasized and discussed. We will show how the public side through a structured PFI model can also benefit from giving the private sector an opportunity to maximise the commercial strength of the project using their know-how and taking the risks involved with this commercial aspects of the project. PPP has positive fiscal impact as the additional tax revenue accrues to the government and local authorities as a consequence of the project being carried out by the private sector. The added benefits of the project will be additional employment and other effects to the local and national economy.

Research

Methodology

Using methods from statistics, trend analysis, we analyzed budget revenues from income tax and budget revenues from profit tax of the town of Kastav. Trend analysis was concerned with the long-term direction of movement in revenue from income and profit tax. The equation for the trend line values, with x representing the year is

$$Y_t = \beta_0 + \beta_1 X_t$$

the β_0 represents the point of intersection of the trend line with y axis, whereas the β_1 represents the slope of the trend line. Variable x is the year and variable y is the observed value of revenue. On the basis of research results, we projected cash inflow from income tax and cash inflow from profit tax associated with the development project of an enterprise zone.

Through the case study, the main reasons and benefits for application of public-private partnership in the financing of a development project were emphasized and discussed. Quantitative methods such as net present value and internal rate of return

were considered as an aid in making a decision but not as a substitute for sound managerial judgement.

Results of trend analysis

Trend analysis has been performed using historical annual data of budget revenues from income tax and budget revenues from profit tax of the town of Kastav. Revenues from profit tax were revenues of local budget up until 2009 and after that they became the revenues of state budget according to a new law.

Trend analysis of revenue from income tax

Table 1. Trend analysis of revenue from income tax(000 Euros)

Year	Revenue from income tax (y_t)	Variable time (x_t)	$X_t \times Y_t$	X_t^2	Y_t^2	Trend values
1996.	324	0	0	0	104,658	252
1997.	301	1	301	1	90,434	309
1998.	392	2	784	4	153,650	365
1999.	426	3	1,277	9	181,201	421
2000.	488	4	1,950	16	237,756	478
2001.	532	5	2,658	25	282,627	534
2002.	578	6	3,471	36	334,582	590
2003.	634	7	4,441	49	402,467	646
2004.	658	8	5,262	64	432,581	703
2005.	683	9	6,150	81	466,985	759
2006.	712	10	7,116	100	506,369	815
2007.	818	11	8,993	121	668,311	871
2008.	969	12	11,625	144	938,400	928
2009.	1,004	13	13,053	169	1,008,143	984
2010.	1,138	14	15,938	196	1,295,955	1,040
2011.	1,137	15	17,056	225	1,292,921	1,097
Total	10,792	120	100,073	1,240	8,397,038	10,792

$$\beta_1 = 56.27$$

$$\beta_0 = 252.48$$

The trend equation for revenue from income tax (in thousands) is

$$Y_t = 252.48 + 56.27X_t,$$

with $x = 0$ at year 1996.

The coefficient of trend variation indicates the relative magnitude of the standard deviation of trend as compared with the mean of variable y (revenue from income tax); as a percentage, it amounts to 7.52% (less

For the purpose of identifying the trend component of revenue from income tax, we used 15 years of annual data of revenue from income tax from 1996 up until 2011. The long-term increase of revenue from income tax appears to follow a linear trend line value and is represented by the trend linear equation. The results of trend analysis of revenue from income tax and trend values calculated on the basis of a trend linear equation are shown in table 1.

than 10%) and shows that the representativity of the determined linear trend model is good.

Trend analysis of revenue from profit tax

For the purpose of identifying the trend component of revenue from profit tax, we used 13 years of annual data of revenue from profit tax from 1996 up until 2009. The long-term movement in revenue from profit tax appears to follow a linear trend line value and is represented by the trend linear equation. The results of trend analysis of revenue from profit

tax and trend values calculated on the basis of the trend linear equation are shown in table 2.

Table 2. Trend analysis of revenue from profit tax(000 Euros)

Year	Revenue from profit tax (y_t)	Variable time (x_t)	$X_t \times Y_t$	X_t^2	Y_t^2	Trend values
1996.	74	0	0	0	5,458	56
1997.	119	1	119	1	14,177	96
1998.	144	2	287	4	20,619	136
1999.	168	3	503	9	28,152	175
2000.	187	4	750	16	35,139	215
2001.	246	5	1,231	25	60,595	255
2002.	274	6	1,644	36	75,079	294
2003.	319	7	2,236	49	102,021	334
2004.	365	8	2,921	64	133,397	373
2005.	419	9	3,774	81	175,840	413
2006.	453	10	4,533	100	205,511	453
2007.	501	11	5,508	121	250,741	492
2008.	554	12	6,647	144	306,834	532
Total	3,824	78	30,154	650	1,413,473	3,824

$$\beta_1 = 39.62$$

$$\beta_0 = 56.42$$

The trend equation for revenues of income tax (in thousands) is

$$Y_t = 56.42 + 39.62X_t,$$

with $x = 0$ at year 1996.

The coefficient of trend variation indicates the relative magnitude of the standard deviation of trend as compared with the mean of variable y (revenue from profit tax); as a percentage, it amounts to 5.18% (less than 10%) and shows that the representativity of the determined linear trend model is good. A starting point for long-term forecasting of annual values of revenue from income tax and profit tax generated by the project of an enterprise zone is provided by use of the trend line equations.

Case study: an enterprise zone

The enterprise zone furnishes an interesting case study on how a project can be financed through partnership between the public and private sector.

Government contributions can take various forms, including equity or asset transfer. In this

case, the government contributes through a grant subsidy. Local authorities contribute through assistance in the initial planning stage and through a grant subsidy. The project will be executed by inviting the private sector to undertake construction, operation and maintenance of the business premises.

The private sector will be invited to participate actively in the financing and management of the enterprise zone.

The project involves the construction and operation of an enterprise zone in the eastern part of the town of Kastav. The capital project entailing construction of an enterprise zone includes: laying out of a road in the zone, the installation of a water-supply system and building sewers, the purchase and preparation of land for construction of business facilities and building premises. With the aim of providing business facilities in the zone for small-scale entrepreneurs and small business owners, the project includes construction of business premises, surface area 12,000 m², to carry out production and services as well as joint premises. The construction period of an enterprise zone is two years including feasibility studies, design, estimate and purchase of land. The estimated operation period for the project

is 30 years. The cost of the required infrastructure will be borne by the government with some form of grant. Local authorities will purchase land (area 20ha), prepare the land for construction and then sell it to large and medium-scale enterprises that are interested in building business facilities and operating in the enterprise zone. The detailed engineering and

design work provides the basis for estimating construction costs of the project. Construction estimates include the cost of all facilities necessary for operation of the project as a freestanding entity. The projected total construction cost of the project is approximately 14.51 million Euros.

Table 3. Estimated sources and uses of funds for proposed construction of an enterprise zone (Euros)

Sources of funds	Amount	Use of funds	Amount
A grant subsidy from the central government	1,010,000	Construction costs of road	430,000
A grant subsidy from local authority	2,900,000	Construction costs of water-supply and sewers	580,000
Bank loans	4,450,000	Purchase and preparation of land	7,350,000
Equity of private sector	6,150,000	Construction costs of business premises	6,150,000

Source: Author's calculations

In this project the three main financing instruments used are debt, loans and grants. Grants are available for the project in the form of aid from the government up to a maximum of 6.96% of total construction costs.

The local authorities have agreed to provide grants up to a maximum of 19.99% of total costs. For the enterprise zone project, some funds will be supplied by a commercial bank during the construction period. Bank debt will fund 30.67% of the costs during the construction period. The private sector will be invited to participate in financing with the remaining 42.38% of project costs and to undertake construction, maintenance and management of the business premises. These funds will be used for financing the required infrastructure, purchase and preparation of land as well as construction of business premises. Before deciding on execution of the project, the local authorities should analyse the economic viability of the project and risks associated with operation and maintenance of the enterprise zone. The local authorities should also carry out invitation of tenders to select a private partner for construction of a business premises. As local authorities are in a position to make a Public-Private-Partnership (PPPs) contract solely in accordance with the private finance initiative model, the private partner finances construction, maintenances

and management of the building, while the public partner pays for rent of the building. Local authorities would pay out an amount of 95% of revenue earned through renting the business premises to the private partner. The private sector bears the risks such as construction risk, risk of availability and risk of insufficient interest.

Although the estimated operation period for the project is 30 years, the analysis of project economics is performed for a 12 year period during which time local authorities service project-related borrowings and construction. The project revenues and costs are all projected for the period from 2012 till 2023 during the first ten years of exploitation of the project and the construction period. The projection includes costs during the construction period: construction costs of road and other infrastructure, costs of purchase and preparation of land and construction costs of business premises. This projection also includes costs during the operation period: costs for maintenance of the enterprise zone and interest charges. On the basis of research results the project's revenues are projected from the aspect of government, local authorities and private sector. These projections include the following components of revenues:

revenues of local budget - revenue from income tax, revenue from other public reimbursements (utility rates and utility taxes), revenue from sale of land and revenue from rent of business premises
 revenues of state budget – revenue from profit tax
 incomes of private partner – profit after tax.

If a project has difficulties in generating sufficient revenues to service debt and maintain a reasonable rate of return, the local authorities have to restructure their financing tools to maintain financial viability.

We determined the forecasts of revenue from income tax and profit tax for 2014 through 2023 based on the projected value for the first year of exploitation of the project and the linear trend equations. The projected value of revenue from income tax for the first year of exploitation of the project is equal to the trend value of revenue from income tax for the year 1998 in our trend analysis, while the projected value of revenue from profit tax for the first year of exploitation of the project is equal to the trend value of revenue from profit tax for the year 2006 in our trend analysis.

The projections of anticipated revenues and costs indicate how profitable the project is

expected to be. The value of the project is estimated by using discounting cash flow analysis and computing the current value of all cash flows connected with the project.

Discounted cash flow analysis involves estimating the amount of the initial investment, projecting after-tax cash flows, estimating the cost of capital and then using the net current value method and the internal value of return method to determine whether the project is worth more than it will cost. The economic viability of a project depends on the adequacy of the cash flows generated compared to the cash flows that must be expended. Projecting cash outflows and inflows is a critical part of this analysis.

The cash flow projections, shown in table 4, indicate how profitable the project is expected to be, how much cash flow is expected to be generated and how that cash flow will be allocated among the various providers of capital. These projections can also be used to predict how the project's financial condition is expected to change over the life of the project. The estimated cash flows of the project are characterised by an adverse cash flow in 2012 and 2013 and a favourable cash flow in the period from 2014 to 2023.

Table 4. Projections of the inflows and outflows of the project (000 Euros)

Inflow/Outflow	2012.	2013.	2014.	2015.	2016.	2017.
Local budget						
Inflow from income tax			365	421	477	534
Inflow from other public reimbursements			1,100	1,150	1,100	1,150
Inflow from rent of business premises			1,700	1,900	2,000	2,200
Inflow from sales of land			1,500	1,500	1,000	1,000
Outflow for purchase and preparation of land	2,900	4,450				
Outflow for service of debt			615	615	615	615
Outflow for interest charges			1,000	900	800	700
Outflow for rent of business premises			1,615	1,805	1,900	2,090
Outflow for maintenance			50	50	50	60
State budget						
Inflow from profit tax			453	492	530	570
Outflow for construction of infrastructure	430	580				
Private partner						
Inflow from rent of business premises			1,615	1,805	1,900	2,090
Outflow for profit tax			323	361	380	418
Outflow for construction of	2,860	3,290				

business premises						
Net inflow	-6,190	-8.320	3,130	3,537	3,262	3,661
Inflow/Outflow	2018.	2019.	2020.	2021.	2022.	2023.
Local budget						
Inflow from income tax	590	646	703	759	815	871
Inflow from other public reimbursements	1,150	500	300	300	300	300
Inflow from rent of business premises	2,400	2,600	2,800	3,000	3,200	3,500
Inflow from sales of land	1,000	1,200	1,200	1,000	700	500
Outflow for purchase and preparation of land						
Outflow for service of debt	615	615	615	615	615	615
Outflow for interest charges	600	500	400	300	200	100
Outflow for rent of business premises	2,280	2,470	2,660	2,850	3,040	3,325
Outflow for maintenance	60	60	70	70	80	80
State budget						
Inflow from profit tax	610	650	690	730	770	810
Outflow for construction of infrastructure						
Private partner						
Inflow from rent of business premises	2,280	2,470	2,660	2,850	3,040	3,325
Outflow for profit tax	456	494	532	570	608	665
Outflow for construction of business premises						
Net inflow	4,019	3,927	4,076	4,234	4,282	4,521

On the basis of the estimated cash flows an economic evaluation of the project has been carried out forming a basis for decision-making on the socio-economic justification for construction of the enterprise zone. An economic evaluation has been carried out under the assumption of the going cost of capital of 12%.

The economic parameters determined are the net current value and the internal value of return. By using the net current value method and discounted rate of 12% all year's cash flows are transformed to the value at the beginning of exploitation of the project. Table 5. shows flows and features of the economic evaluation of the project by using the net current value method.

Table 5. Projections of the net current value of the project

Year	Expenditures for construction	Benefits	Discount factor	Discounted expenditures	Discounted benefits
1	2	3	4	5	6
2012	6,190,000		1.25440000	-7,764,735.98	
2013	8,320,000		1.12000000	-9,318,400.03	
2014		3,130,000	0.89285714		2,794,642.85
2015		3,537,000	0.79719388		2,819,674.75
2016		3,262,000	0.71178025		2,321,827.18
2017		3,661,000	0.63551808		2,326,631.69
2018		4,019,000	0.56742686		2,280,488.55
2019		3,927,000	0.50663112		1,989,540.41
2020		4,076,000	0.45234922		1,843,775.42
2021		4,234,000	0.40388323		1,710,041.60
2022		4,282,000	0.36061002		1,544,132.11
2023		4,521,000	0.32197324		1,455,641.02
				-17,083,136.01	21,086,395.57
			Net current value	=	4,003,259.56

The net current value of the project for constructing an enterprise zone is positive and the project should be accepted. The discounted rate of 15.85% equalises the net current value with zero. The internal value of return amounts to 15.85%. It exceeds the cost of capital and the capital investment project should be undertaken also from the aspect of the internal value of return.

Discussion

The capital investment project should be accepted and undertaken from the aspect of the net current value of the project and the aspect of the internal value of return. The results set out do not provide conclusive evidence as the financial risks associated with the project have not been taken into account and have not been analysed. The project is a long-term project and the financial risks associated with the project are large. The financial risks diminish the economic viability of a project and to ensure that the project is carried out smoothly the financial risks must be carefully managed.

The case study of the enterprise zone shows that close cooperation of state and local institutions with the private sector in financing infrastructural projects can result in benefits for all participants in this project. The results of the research lead to the conclusion that Public-Private-Partnership (PPP) in financing, as a method used in financing large public projects, can result in benefits for state, local self-government and the private sector. The state can increase its revenue from taxation, especially from profit tax. Local government can increase its revenue from income tax and other public reimbursements, while the private sector can increase its profits.

Project financing provides a structure for financing large-scale infrastructural projects crucial for the social and economic development of a country. Good infrastructure raises productivity and lowers production costs, but it has to expand rapidly to accommodate growth. Evidence from research has shown that growth and development in particular are functions of a good macro-economic policy

framework, which facilitates capital flows to productive economic activities. Infrastructure such as enterprise zone has strong links to growth, poverty alleviation and environmental sustainability. The research results indicate that there exists a direct link between infrastructural development and human welfare and economic development leading to an alleviation of poverty and improvement of the environment.

The main hypothesis has been verified: The financing of infrastructure development projects through public-private-partnership is acceptable from the aspect of the public and private sector as, through exploitation of such projects, sufficient cash flows to service debts and maintain a reasonable rate of return to the investors can be generated, along with expanding opportunities for employment, economic growth and development.

Proposals for achieving higher levels of financing and procurement of infrastructure projects

In order to achieve higher levels of financing public investments and procurement of infrastructure in the Republic of Croatia, it is necessary to emphasize the following activities: As the largest global source of investment capital is the private sector, this sector should be invited to participate actively in the financing and management of infrastructure projects. Such participation is possible and sustainable only if the objectives of both the public and the private sectors are met, while providing users with quality infrastructure services at a competitive price.

More emphasis should be placed on new methods of financing and procurement of infrastructure projects and services through concession contracts and their derivatives – public-private-partnerships and leasing. It is especially important for projects that have potential for a revenue stream.

Country risks should be managed and reduced in order to improve the environment for private sector development.

As direct foreign investments play a significant role in the development process of most

developing countries, the Republic of Croatia has to create and provide a conducive environment for attracting direct foreign investments which are important, not only for financial flows to countries but also because they facilitate the transfer of technology and managerial know-how.

Conclusion

The growing pressure on government budgets has led to a greater need and search for efficiencies in the financing and procurement of public infrastructure projects. This has led to the alternative methods of financing and managing infrastructure by the private sector. Successful infrastructure projects have also been financed through innovative PPP.

The case study of the construction and financing the enterprise zone shows that close cooperation of state and local institutions with the private sector in financing infrastructural projects can result in benefits for all participants in this project. Infrastructure such as an enterprise zone has strong links to growth, poverty, alleviation and environmental sustainability. Such infrastructure development projects are essential to modernise and diversify production and there exist a direct link

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between the quantity and quality of infrastructure and development.

The results of the research lead to the conclusion that the Public-Private-Partnership (PPP) in financing can result in benefits for state, local self-government and the private sector. The state can increase its revenue from profit tax. Local government can increase its revenue from income tax and utility rates and taxes, while the private sector can increase its profits. The financing of infrastructure development projects through PPP is acceptable from the aspect of the public and private sectors because such projects generate sufficient cash flows to service debts, obtain competitive returns on investment and expand opportunities for employment, economic growth and development.

The research results indicate that there exists a direct link between infrastructural development and human welfare and economic development. Evidence from research has shown that growth and development, in particular, are functions of a good macro-economic policy framework, which facilitates capital flows to productive economic activities such as activities of an enterprise zone.

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APPENDIX

Table A. Income and Expenses account (000 Euros)

Revenue/Expenditure	2012.	2013.	2014.	2015.	2016.	2017.
Local budget						
Revenue from income tax			365	421	477	534
Revenue from other public reimbursements			1,100	1,150	1,100	1,150
Revenue from rent of business premises			1,700	1,900	2,000	2,200
Revenue from sales of land			1,500	1,500	1,000	1,000
Expenses for purchase and preparation of land	2,900	4,450				
Expenses for service of debt			615	615	615	615
Expenses for interest charges			1,000	900	800	700
Expenses for rent of business premises			1,615	1,805	1,900	2,090
Expenses for maintenance			50	50	50	60
State budget						
Revenue from profit tax			453	492	530	570
Expenses for construction of infrastructure	430	580				
Private partner						
Revenue from rent of business premises			1,615	1,805	1,900	2,090
Expenses for profit tax			323	361	380	418
Expenses for construction of business premises	2,860	3,290				
Total surplus of revenue	-6,190	-8.320	3,130	3,537	3,262	3,661
Revenue/Expenditure						
Local budget						
Revenue from income tax	590	646	703	759	815	871
Revenue from other public reimbursements	1,150	500	300	300	300	300
Revenue from rent of business premises	2,400	2,600	2,800	3,000	3,200	3,500
Revenue from sales of land	1,000	1,200	1,200	1,000	700	500
Expenses for purchase and preparation of land						
Expenses for service of debt	615	615	615	615	615	615
Expenses for interest charges	600	500	400	300	200	100
Expenses for rent of business premises	2,280	2,470	2,660	2,850	3,040	3,325
Expenses for maintenance	60	60	70	70	80	80
State budget						
Revenue from profit tax	610	650	690	730	770	810
Expenses for construction of infrastructure						
Private partner						
Revenue from rent of business premises	2,280	2,470	2,660	2,850	3,040	3,325
Expenses for profit tax	456	494	532	570	608	665
Expenses for construction of business premises						
Total surplus of revenue	4,019	3,927	4,076	4,234	4,282	4,521

MANAGEMENT OF CURRENT ASSETS

Eleonora Kontuš

Abstract:

The aim of the paper is, firstly, to analyze various types of current assets: cash, accounts receivable and inventory as well as their management, secondly, to explore cost and benefits of cash management, changes in credit policy and changes in inventory policy, thirdly, to determine variables that impact on net savings which can result in the establishment of a lockbox system in order to reduce investment in cash, net earnings from changes in credit policy as well as variables that determine net savings from changes in the inventory level. Through proper management of current assets, a maximum return at an acceptable level of risk can be achieved. Emphasis should be placed on a balanced mixture of current asset items. In streamlining its cash operations, the firm should bear the expense of implemented techniques for reducing cash balance requirements as long as marginal returns exceed marginal costs. When a firm is considering changes in its credit policy in order to improve its income, incremental profitability must be compared with the cost of discount and the opportunity cost associated with higher investment in accounts receivable. An optimal inventory level should be based on consideration of incremental profitability resulting from increased merchandise with the opportunity cost of carrying higher inventory balances. The results of the work will provide equations for calculating net savings of establishing a lockbox system, equations for calculating net earnings from changes in credit policy and net savings from revising the inventory policy. The results lead to the conclusion that management of current assets is easier as calculations regarding net savings from establishing a lockbox system, net earnings from investment in accounts receivable and net savings from different inventory levels are simplified by using the given equations.

Key words: cash balance, lockbox system, accounts receivable, inventory level, net savings

Introduction

Management of current assets includes management of cash, the greater part of liquid assets along with accounts receivable and inventory representing the least liquid category. A firm can maximize its rate of return and minimize its liquidity and business risk by optimally managing cash, accounts receivable and inventory. The financial manager should determine the amount to be invested in current assets. Cash management plays perhaps the most important role in current assets management.

Cash is a necessary asset for running a firm and must be held in sufficient quantity to meet demand. Cash management involves having the optimum amount of cash on hand at the right time and also requires knowing the amount of

funds available for investment as well as the length of time in which they can be invested.

The financial manager must accurately forecast the amount of cash required, its source and destination. Accounts receivable are the monies owed to a firm as a result of having sold its products to customers on credit. The three primary issues in accounts receivable management are to whom credit should be extended, the terms of the credit and the procedure that should be used to collect the money. Inventory management involves comparison between the costs associated with keeping inventory versus the benefits of holding inventory. An optimal inventory level can be based on consideration of the incremental profitability to the opportunity cost of carrying the higher inventory balances.

The purpose of this study is to determine ways of finding optimal current asset levels along

with making optimum use of available current assets in order to achieve a maximum return at an acceptable level of risk. In striving to fill in the gaps relating to net savings from establishing a lockbox system, net savings from revising the credit and inventory policy, the study makes its own contribution to research and thereby to managers. With the aim of completing these gaps, the study will investigate various current assets as well as their management and explore costs and benefits of cash management, changes in credit policy and changes in inventory policy. The outcome represents new equation models for calculating net savings from establishing a lockbox system, net earnings from changes in credit policy and net savings from revising inventory policy. It also gives general recommendations for financial managers.

Literature review

The proper management of current assets will result in maximizing return and minimizing liquidity and business risk. There are many ways of managing current assets, including using quantitative techniques to find optimal asset levels. The amount invested in any current asset may change daily and requires close appraisal. Improper asset management occurs when funds tied up in the asset can be used more productively elsewhere (Shim and Siegel, 2004).

The main concepts underlying working capital management or firm's investments in current assets are:

- speeding up receipts of cash
- delaying payments of cash
- investing excess cash.

The purpose of cash management is to invest excess cash for a return and at the same time have adequate liquidity to meet future needs. The goal of the financial manager is to minimize the amount of cash the firm must hold for use in conducting its normal business activities, at the same time, to have sufficient cash to take trade discounts, to maintain its credit rating, and to meet unexpected cash needs (Brigham and Daves, 2004).

A financial manager should accelerate cash inflows and delay cash payments in order to earn a greater return on money. To accelerate cash inflows, the financial manager must know the bank's policy regarding fund availability, know the source and location of company receipts and devise procedures for quick deposit of checks received and quick transfer of receipts in outlying accounts into the main corporate account.

Means of accelerating cash receipts are:

- Lockbox arrangement where the collection point is placed near customers.

- Concentration banking, where funds are collected in local banks and transferred to a main concentration account.

- Accelerate billing.

- Require deposits on large or custom orders or progress billings as the work progresses.

- Charge interest on accounts receivable after a certain amount of time.

- Offer discounts for early payment.

- Use personal collection efforts (Shim and Siegel, 2004).

As ways of delaying cash payments, we can emphasize the following:

- Centralize the payables operation so that debt may be paid at the most profitable time and the amount of disbursement float in the system may be ascertained.

- Make partial payments.

- Use payment drafts, where payment is not made on demand.

- Use probability analysis to determine the expected date for checks to clear.

- Use a charge account to lengthen the time between buying goods and paying for them.

- Stretch payments as long as possible as long as there is no associated finance charge or impairment in credit rating.

- Do not pay bills before due dates.

- Utilize noncash compensation and remuneration methods.

- Delay the frequency of your company payrolls (Shim and Siegel, 2004).

Lock boxes are payment collection locations spread geographically so as to reduce the

amount of time required for checks mailed to the firm to be deposited and cleared.

The lock boxes are typically post office box addresses from which deposits go directly to a bank on the day of receipt (Chambers and Lacey, 2011).

In lockbox arrangement, as mean of accelerating cash receipts, the collection point is placed near customers and mail float can be minimized by having the collection centre located near the customer. Local banks should be selected to speed the receipt of funds for subsequent transfer to the central corporate account. As an alternative, strategic post office lockboxes may be used for customer remissions. The local bank collects from these boxes several times a day and deposits the funds in the corporate account. The reduction of mailing time and check clearing time for the banks can produce significant savings when large sums of money are involved. A challenging working capital management problem is obviously the decision of how many lock boxes should be used and where they should be located (Chambers and Lacey, 2011).

Before a lockbox system is implemented, the company should make a cost-benefit analysis that considers the average dollar amount of checks received, the costs saved by having lockboxes, the reduction in mailing time per check and the processing cost. The cost-benefit analysis must be undertaken to ensure that the lockbox arrangement will result in net savings. The return earned on freed cash must be compared to the cost of the lockbox arrangement. The concept that drives cash management is that, even though cash is necessary, too much of it is wasteful. The corporation's capital is a valuable commodity that could be put to work earning better rates of return elsewhere than it earns as cash – little or no interest in a bank's checking account. The goal of cash management is simply to minimize the total cost of providing cash liquidity to the firm (Chambers and Lacey, 2011).

Firms would rather sell for cash than on credit, but competitive pressures force most firms to offer credit. Receivables management begins

with the credit policy. The financial manager is responsible for administering the firm's credit policy. Credit policy consists of four variables: credit period, discounts given for early payment, credit standards and collection policy. Discounts given for early payment include the discount percentage and how rapidly payment must be made to qualify for the discount. Credit standards refer to the required financial strength of acceptable credit customers. Lower credit standards boost sales, but also increase bad debts. Collection policy is measured by its toughness or laxity in attempting to collect on slow-paying accounts. A tough policy may speed up collections, by it might also anger customers, causing them to take their business elsewhere (Brigham and Daves, 2004).

The major decision regarding accounts receivable is the determination of the amount and terms of credit to extend to customers. The total amount of accounts receivable outstanding at any given time is determined by two factors: the volume of credit sales and the average length of time between sales and collections. When a credit sale is made, the following events occur: inventories are reduced by the cost of goods sold, accounts receivable are increased by the sales price, and the difference is profit, which is added to retained earnings. If the sale is for cash, then the cash from the sale has actually been received by the firm, but if the sale is on credit, the firm will not receive the cash from the sale unless and until the account is collected. Carrying receivable has both direct and indirect costs, but it also has an important benefit-increased sales.

In managing accounts receivable, the following procedures are recommended:

- establish a credit policy
- establish a policy concerning billing
- establish a policy concerning collection.

Financial managers have a responsibility both for raising the capital needed to carry inventory and for the firm's overall profitability. The goals of inventory management are to ensure that the inventories needed to sustain operations are available, but to hold the costs of ordering and carrying inventories to the lowest possible level. There is always pressure to reduce

inventory as part of firms' overall cost-containment strategies, and many firms are taking drastic steps to control inventory costs (Brigham and Daves, 2004).

The benefit of an inventory is to assure that goods will be available as required. The primary costs of an inventory are the opportunity cost of the capital used to finance the inventory, ordering costs and, storage costs. Inventory management seeks to maximize the net benefit - the benefits minus costs - of the inventory. All benefits and costs should be measured using market prices adjusted for time and risk (Chambers and Lacey, 2011).

Inventory management involves a trade-off between the costs associated with keeping inventory versus the benefits of holding inventory (Shim and Siegel, 2007). The financial manager should attempt to determine the inventory level that results in the greatest savings. The inventory level that results in the highest net savings is considered the optimal inventory level.

Research

Methodology

In this research, it is essential to determine independent variables that impact net savings which can result in the establishment or change of a lockbox system, net savings from changes in credit policy as well as independent variables that determine net savings from changes in inventory level. It is also imperative to determine the relationship between the selected independent variables so that net savings can be computed.

Corporate models have been designed on the basis of the results of analysis of these activities. The first step in designing a corporate model is to define the objective of the model. The next step is to specify the independent variables to be used in the model. The third

step in the modelling process is to determine the relationship between the selected independent variables so that net savings can be computed. All independent variables that appear at every stage of calculating net savings and their impact on net savings have been considered. Finally, independent variables which determine net savings from establishing a lockbox system, changes in credit policy and changes in inventory level have been selected and the relations between them have been defined. As a result, new corporate models have been introduced.

Results of analysis

We have analyzed establishing and changing a lockbox arrangement, defined independent variables which determine costs and benefits of a lockbox arrangement, determined relationships between independent variables in order to produce the costs and benefits of establishing or changing a lockbox arrangement. Finally, we have introduced new models for calculating net savings which can help to ensure that instituting a lockbox arrangement will result in net savings.

Establishment of a new lockbox arrangement

In developing a new model for calculating net savings from establishing a lockbox arrangement we have used the basic analytical concept of comparing the incremental costs versus the incremental benefits.

The independent variables that determine net savings from establishing a lockbox system are:
 daily average collections of the firm
 the reduction in float time expressed in days (both mail and processing)
 yearly rate of return
 annual costs
 profit tax rate.

Benefits from establishing a lockbox system after-tax can be expressed as follows

$$\text{incremental benefits} = \left(\text{daily average collection} \times \text{reduction in float time} \times \text{rate of return} / 100 \right) \times (1 - \text{profit tax})$$

The costs of a lockbox system after-tax can be expressed as follows

$$\text{incremental costs} = \text{annual costs} \times (1 - \text{profit tax})$$

Net annual savings of a lockbox system can be defined as

$$\text{net annual savings} = \text{incremental benefits} - \text{incremental costs}$$

$$\text{net annual savings} = \frac{(\text{daily average collection} \times \text{reduction in float time} \times \text{rate of return} / 100)}{(1 - \text{profit tax})} - \text{annual costs} \times (1 - \text{profit tax})$$

After rearrangement, net annual savings are expressed as follows

$$\text{net savings} = \left(\frac{\text{daily average collection} \times \text{reduction in float time}}{\times \text{rate of return} / 100 - \text{annual costs}} \right) \times (1 - \text{profit tax})$$

We must ensure that this condition is met in our decision to establish the lockbox system:
 $\text{net annual savings from a lockbox system} > 0$

If net savings from the lockbox system is greater than 0, the lockbox system should be established. Due to the fact that the incremental benefits will be greater than the incremental costs, the firm should implement the lockbox arrangement.

Changing the lockbox arrangement

If the existing lockbox operation does not increase sufficient efficiency and reduce float, the financial manager should consider alternative lockbox arrangements, and implement the new lockbox arrangement that results in greatest net annual savings.

The independent variables that determine net savings from changing a lockbox system are:
 daily average collections of the firm
 the reduction in float time expressed in days (both mail and processing)
 increased compensating balances
 yearly rate of return
 the changes in annual costs
 profit tax rate.

Benefits from changing the lockbox system can be expressed as follows

$$\text{accelerated cash receipts} = \text{daily average collection} \times \text{reduction in float time}$$

Benefits from changing the lockbox system after-tax can be expressed as follows

$$\text{incremental benefits} = \left[\frac{(\text{daily average collection} \times \text{reduction in float time} - \text{increased compensating balances})}{\times \text{rate of return} / 100} \right] \times (1 - \text{profit tax})$$

The costs from changing the lockbox system after-tax can be expressed as follows

$$\text{incremental costs} = \text{changes in annual costs} \times (1 - \text{profit tax})$$

Net annual savings from changing the lockbox system can be defined as follows

$$\text{net annual savings} = \text{incremental benefits} - \text{incremental costs}$$

$$\text{net savings} = \left[\frac{(\text{daily average collection} \times \text{reduction in float time} - \text{increased compensating balances})}{\times \text{rate of return} / 100} \right] \times (1 - \text{profit tax}) - \text{changes in annual costs} \times (1 - \text{profit tax})$$

After rearrangement, we evidently obtain

$$\text{net savings} = \left[\frac{(\text{daily average collection} \times \text{reduction in float time} - \text{increased compensating balances})}{\times \text{rate of return} / 100 - \text{changes in annual costs}} \right] \times (1 - \text{profit tax})$$

We must ensure that this condition is met in our decision to change the lockbox system:
 $\text{net annual savings from changing the lockbox system} > 0$

If the net annual savings are greater than 0, then the firm should implement the new lockbox arrangement, because the incremental after-tax benefits from changing the lockbox arrangement are greater than the incremental after-tax costs. In practice the models can become more complex, because there are additional consideration i.e. numerous locations.

Management of accounts receivable

A firm may liberalize its credit policy by extending full credit to presently limited credit customers or to non-credit customers. Full

credit should be given only if net profitability occurs. A financial manager has to compare the earnings on sales obtained to the added cost of the receivables. The additional earnings represent the contribution margin on the incremental sales because fixed costs are constant. The additional costs on the additional receivables result from the greater number of bad debts and the opportunity cost of tying up funds in receivables for a longer time period. In developing a new model for calculating net savings from changes in credit policy we use the basic analytical concept of comparing the additional earnings versus the additional bad debt and opportunity costs.

Change in credit policy

Benefits from changes in credit policy can be expressed as follows

$$\text{additional earnings (AE)} = (\text{selling price (SP)} - \text{variable cost (VC)}) \times \text{additional units (AU)}$$

New average unit cost can be computed as follows

$$\text{unit cost (UC1)} = \frac{(\text{current units (CU)} \times \text{unit cost (UC0)} + \text{additional units (AU)} \times \text{variable cost (VC)})}{(\text{current units (CU)} + \text{additional units (AU)})}$$

Incremental bad debts can be defined as follows

$$\text{additional bad debts} = \text{additional units} \times \text{selling price} \times \text{bad debt percentage}$$

Average investment in accounts receivable after change in credit policy is represented by equation

$$\text{investment in accounts receivable (1)} = \left(\frac{\text{credit sales (CS1)} / \text{accounts receivable}}{\text{turnover (ART1)}} \right) \times (\text{unit cost (UC1)} / \text{selling price (SP)})$$

Average investment in accounts receivable before change in credit policy is represented by equation

$$\text{investment in accounts receivable (0)} = \left(\frac{\text{credit sales (CS0)} / \text{accounts receivable}}{\text{turnover (ART0)}} \right) \times (\text{unit cost (UC0)} / \text{selling price (SP)})$$

Additional investment in accounts receivable can be expressed as follows

$$\text{additional investment in accounts receivable} = \text{average investment in accounts receivable (1)} - \text{average investment in accounts receivable (0)}$$

Opportunity costs of funds tied up can be computed as follows

$$\text{opportunity costs} = \text{additional investment in accounts receivable} \times \text{return rate} / 100$$

Net advantage of relaxation in credit standards is given by the expression

$$\text{net savings} = \text{additional earnings} - \text{additional bad debt} - \text{opportunity costs}$$

The independent variables that determine net savings from changes in credit policy are:

- selling price (SP)
- variable costs (VC)
- fixed costs (FC)
- current units (CU)
- additional units (AU)
- bad debt percentage (BD)
- credit sales before change in credit policy (CS0)
- credit sales after change in credit policy (CS1)
- accounts receivable turnover after change in credit policy (ART1)
- accounts receivable turnover before change in credit policy (ART0)
- collection period (CP)
- return rate (RR).

On the basis of research results we have developed a new model for calculating net savings from changes in credit policy, which is a set of mathematical equations.

The relations between independent variables can be established as follows in order to produce dependent variables net savings (NS), unit cost before change in credit policy UC(0) and unit cost after change in credit policy UC(1):

$$\text{NS} = (\text{SP} - \text{VC}) \times \text{AU} - \text{SP} \times \text{AU} \times \text{BD} / 100 - [\text{CS}(1) / \text{ART}(1) \times \text{UC}(1) - \text{CS}(0) / \text{ART}(0) \times \text{UC}(0)] \times \text{RR} / (100 \times \text{SP})$$

whereby dependent variables UC(0) and UC(1) are given by the expressions

$$\text{UC}(0) = \text{FC} + \text{VC}$$

$$\text{UC}(1) = [\text{CU} \times (\text{FC} + \text{VC}) + \text{AU} \times \text{VC}] / (\text{CU} + \text{AU})$$

A financial manager may decide to liberalize credit policy only if the net advantage of relaxation in credit standards occurs and must ensure that in his decision to change a credit

policy this condition is met: net savings from changing in credit policy > 0 .

The decision rules would then be defined as follows:

If $NS > 0$ extend credit

If $NS = 0$ probably extend credit (marginally acceptable)

If $NS < 0$ do not extend credit.

Management of inventory

In developing a new model for calculating net savings from changes in inventory level we use the basic analytical concept of comparing the increased profitability versus the opportunity costs of carrying incremental inventory.

Changes in inventory level

Increased profitability can be expressed as follows

increased profitability = $(\text{sales (1)} - \text{sales (0)}) \times \text{fixed costs}$

Opportunity cost of carrying incremental inventory is represented by equation

opportunity costs = $(\text{sales (1)} / \text{turnover (1)} - \text{sales (0)} / \text{turnover (0)}) \times \text{rate of return}$

Net savings from changes in inventory level can be defined as

net savings = increased profitability - opportunity costs

The independent variables that determine net savings from changes in inventory level are:

sales (S1)

sales (S0)

fixed costs (FC) expressed as percentage of sales

turnover (T1)

turnover (T0)

rate of return (RR).

The relations between independent variables can be established as follows in order to

produce dependent variables net savings (NS) and inventory level (IL):

$$NS = (S(1) - S(0)) \times FC - (S(1)/T(1) - S(0)/T(0)) \times RR/100$$

whereby dependent variable inventory level (IL) is given by the expression

$$IL = S(1)/T(1)$$

A financial manager must ensure that this condition is met in his decision to choose the optimal inventory level:

net savings from optimal inventory level = maximum

Finally, the optimal inventory level is the inventory level that results in the highest net savings.

Corporate models

To enable us model the relations between independent variables which determine net savings as a dependent variable, new equations have been introduced.

Consequently, the main findings are new equations for calculating net savings from establishing or changing a lockbox arrangement, net savings from changes in credit policy as well as from changes in inventory level.

Net savings from establishing a lockbox arrangement

$$\text{net savings} = \left(\begin{array}{l} \text{daily average collection} \times \text{reduction in float time} \\ \times \text{rate of return} / 100 - \text{annual costs} \\ \times (1 - \text{profit tax}) \end{array} \right)$$

Net savings from changing a lockbox arrangement

$$\text{net savings} = \left[\begin{array}{l} \text{daily average collection} \times \text{reduction in float time} \\ - \text{increased compensating balances} \\ \times \text{rate of return} / 100 - \text{changes in annual costs} \end{array} \right] \times \\ \times (1 - \text{profit tax})$$

Net savings from changes in credit policy

$$NS = (\text{SP} - \text{VC}) \times \text{AU} - \text{SP} \times \text{AU} \times \text{BD} / 100 - [\text{CS}(1) / \text{ART}(1) \times \text{UC}(1) - \text{CS}(0) / \text{ART}(0) \times \text{UC}(0)] \\ \times \text{RR} / (100 \times \text{SP})$$

whereby dependent variables UC(0) and UC(1) are given by the expressions

$$\text{UC}(0) = \text{FC} + \text{VC}$$

$$\text{UC}(1) = [\text{CU} \times (\text{FC} + \text{VC}) + \text{AU} \times \text{VC}] / (\text{CU} + \text{AU})$$

Net savings from changes in inventory level

$$NS = (\text{S}(1) - \text{S}(0)) \times \text{FC} - (\text{S}(1) / \text{T}(1) - \text{S}(0) / \text{T}(0)) \times \text{RR} / 100$$

whereby dependent variable inventory level (IL) is given by the expression

$$\text{IL} = \text{S}(1) / \text{T}(1)$$

Benefits derived from these corporate models include:

the ability to explore more alternatives help management better understand the business and its functional relationships and help to improve decision-making ability in management of current assets

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more effective planning and more accurate forecasts cost savings.

Conclusion

Current assets management includes cash management, accounts receivable and inventory management. We have analyzed the activities included in management of current assets such as establishing or changing a lockbox arrangement, changes in credit policy and changes in inventory level. Corporate models have been designed on the basis of the analysis results of these activities. The development of the models essentially involves a definition of variables and model specification.

Major findings are new equation models for calculating net savings from establishing or changing a lockbox arrangement, net savings from revising the credit and inventory policy. The contribution of this paper is to model all the relationships between independent variables which determine net savings from establishing or changing a lockbox arrangement, net savings from changes in credit policy and changes in inventory level as dependent variables. The equation models can be used as a tool to help minimize costs and to make optimum use of available current assets in order to achieve a maximum return at an acceptable level of risk.

An aerial photograph of a coastal region, showing a large bay or inlet on the left side, surrounded by land with various terrain features and vegetation. The sky is clear and blue. The text is overlaid on the bottom right portion of the image.

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