

# International Journal of Management Cases

# Special Issue

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### Edited by

Prof. Gian Luca Gregori Prof. Silvio Cardinali Prof. Valerio Temperini

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"What is great about entrepreneurship is that entrepreneurs create the tangible from the intangible"

Robert Herjavec

This Introduction to "International Journal of Management Cases" includes a selection of papers presented at the 13th Society for Global Business and Economic Development Conference organized in 2014 by the Faculty of Economics "Giorgio Fuà", Università Politecnica delle Marche (Italy). Informally and widely known as the "SGBED Conference", this biennial event is devoted to recent advances in Business, Management and Global Economics and attracts top researchers from around the world. The 2014 SGBED Conference took place for the first time in Italy, in the town of Ancona, on the Adriatic Sea. It brought together leading scholars in management, marketing, finance and business from all over the world, in a stimulant and challenging atmosphere that encouraged intense and friendly discussions and exchanges. A total of 197 manuscripts were submitted and reviewed by ad-hoc reviewers, of which 130 were accepted. Authors of the papers and participants were about 160, representing 26 countries and attesting to the international nature of the conference. In addition to plenary sessions, the conference had twenty-three concurrent sessions and two sessions dedicated to doctoral student presentations.

The 2014 conference title was "Managing the "Intangibles": Business and Entrepreneurship Perspectives in a Global Context". Compared to tangible assets, "intangibles", or knowledge-based resources, are among the most important determinants of institutions, business and industry performance. Recognizing their role in promoting entrepreneurship, firm performance and socio-economic advancement, several developed countries have recently estimated their economic value and have integrated them into the measurement of GDP. At the same time, several studies have questioned the net benefits of globalization and the impact of "intangibles" on the level and distribution of income and wealth. These mixed results indicate that the role of intangibles and knowledge resources as a source of equitable development is an open issue and hence of significant importance for theoretical and empirical research.

Moreover, the difficult global situation affecting most of the businesses and entrepreneurs worldwide has consequences as the frequent reduction of attention to intangibles assets. However, the entrepreneur and intellectual capital are among the most important assets and, sometimes the only real competitive factors: courage and creativity, flexibility, customer proximity, networking, reputation in the business community, etc. Intangible assets are actually the primary competitive factor to provide quality, and this is an established research topic that has aroused interest in the academic circles worldwide. The research articles in this Special Issue give a significant contribution to the body of knowledge and practice and face the topic from several points of view.

A noteworthy aspect of the papers bears mentioning, which is that while all papers selected for this Special Issue examine familiar research issues in intangible assets, they succeed in offering new and innovative perspectives on each. On the one hand, Gatti and Serfas, in their works, look at how to measure intangibles from an empirical perspective. On the other hand, several papers talk about marketing-related issues like, for example, service quality ("Service quality and profitability. An empirical study about clients and financial advisors of the Allianz Bank F.A" by Angelini and Bianchi, or "After-sales service



as a driver for word-of-mouth and customer satisfaction: insights from the automotive industry" by Confente and Russo, and "The influence of total quality management on risk identification and non-financial performance measures: an Italian-based empirical analysis" by Costantini and Zanin). Another marketing-related issue is connected to tourism sector ("Network brand management. Issues and opportunities for small-sized hotels" by Aureli, Forlani and Pencarelli, or "Competitive processes in tourism destinations: the role of intangible assets" by Iazzi, Rosato and Gravili) along with territory image ("Creative Cities: urban experimental labs" by Della Lucia, or "Developing Territorial Identity: The Experience of Historical Italian Companies" by Bonfanti, Castellani and Rossato). Other intangibles assets analyzed are online reputation ("Social Media Communities of Practice: reputation at risk?" by Fraticelli, Negri and Cori), technology transfer ("Exploring the role of complementary competencies in technology transfer: A new model for spin-off creation programs" by Mazzi, Passeri and Bellandi), and innovation ("Innovation and Internationalization: Evidences from the Italian Furniture Industry" by Pegan and De Luca). Zarzu and Scarlat talk about knowledge development among intercultural teams ("Knowledge Management for Knowledge Development: Lessons Learnt While Implementing International Projects by Multicultural Teams") while Rudy and Fratričová faces the Human Capital Management issue with "Get Strategic Human Resource Management Really Strategic: Strategic HRM in Practice". Finally, two papers with a complete different perspective has been included: "The impact of the interest rate volatility on the valuation of investment strategies" by Pacelli, Ballestra and Radi, and "Credit quality, bank provisioning and systematic risk in banking business" written by Floreani, Paltrinieri, Polato and Pichler.

The 13th SGBED Conference was a success. The four articles that appear in this Special Issue are a testimony to the vibrancy and quality of the academic research that is being conducted around the world.

A small and selective conference such as SGBED, its intimacy combined with high-quality presentations serves as an incubator for new ideas and fresh perspectives on all the aspects of business research, and it does so through an international lens that is reflected in the diversity of countries represented on the conference program, the co-chairs of the conference, and the SGBED Conference Scientific Committee. The SGBED Conference is an outlier among global conferences. Its main objective is to be an alternative to giant conferences. It continues as a small and selective conference, with an intensity of discussion and feedback unparalleled by any other conference in its field.

As Guest Editors of this Special Issue, we would like to gratefully acknowledge the time and support of the academic and research community in reviewing the papers submitted. We would also like to thank our colleague and friend Prof. Gianpaolo Vignali for his support as Associate Editor.

Prof. Gian Luca Gregori Prof. Silvio Cardinali Prof. Valerio Temperini



# Service quality and profitability. An empirical study about clients and financial advisors of the Allianz Bank F.A

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> Martina Bianchi Marketing Advisor

### **Abstract**

The paper considers the issue of quality of service provided and the effects of value on customers and businesses, particularly those operating in the financial field. The results of a first empirical analysis are presented in the paper. It refers to a sample of 64 customers (about 18% of total customers) of an agency of Allianz Bank FA and the financial advisors of that agency. The purpose of this study has been to measure the relationship between the level of customers' satisfaction regarding the provision of advice and asset management carried out by financial advisors and the value that they allow customers to create for the promotion center Allianz Bank FA. For this purpose an analysis model of service quality designed on the Servqual model has been used and a correlation analysis was carried out between profitability and the Customer satisfaction index (CSI) of each customer and a linear regression. In this way it has been possible to identify the activities giving rise to satisfaction that are most related to the total profitability, activity that is particularly critical for the purpose of generating value. Furthermore the variables that seem to have more effect on profitability have been identified, with clear managerial implications.

Key words: Servgual, customer satisfaction, service quality, performance

### Introduction

For any company maintaining a loyal base of customers has become a must to remain competitive in its target markets. In service industries this is particularly true because of the word of mouth phenomenon they produce and grow, and because of the high resistance to switching a service provider (Butcher et. al., 2001) and the substantial impact on profits (Anderson et al. 1994; Veloutsou et.al. 2004). Fundamental prerequisite for the generation of loyalty and for influencing customer retention, market share and profitability (Anderson et.al 2008; Cronin et.al.2000; Nikbin et.al 2012) is the skill to satisfy customers. It is for this reason that customer satisfaction has been the topic of much attention in literature.

This study considers the relationship between the service quality and the economic performance of the activity conducted by the financial advisors of an agency of Allianz Bank FA located in Lucca. In particular, the main objective of the study is to measure the relationship between the service quality and the value that customers bring to the promoters of the Allianz Bank FA, with focus on the determinants of service quality. For this purpose the study considered initially a service quality assessment using a model developed on the basis of the Servqual model and after considered an indicator of the economic performance of promoters; this indicator was calculated using particular parameters considering specific input of the financial activity. The results have been used



to conduct correlation and linear regression analysis and to discuss the most important aspects together with the managerial implications.

### Service quality and customer satisfaction

Customers' perceived service quality (Zeithaml, Bitner, 1996) and customer satisfaction (CS) (Oliver, 1997) have been taken into consideration by numerous researchers because they are considered the principal structures in the area of service marketing.

The most common definition of service quality is "attitude" which results from a comparison of customer expectations with perceptions of performance (Parasuraman, Berry and Zeithaml 1985, Parasuraman, Zeithaml and Berry 1988). Parasuraman et.al. (1988) presented a model in which the service quality is assessed using a service scale. This model predicts that the quality of service can be appreciated by carrying out a comparison between expectations and perceptions of 22 items related to the service divided into 5 clusters: reliability, responsiveness, reassurance, empathy and tangible aspects. Zeithaml et al. (1993) also illustrated the association between service quality and customer satisfaction.

Numerous are the criticisms directed at the Servqual model both on methodological and conceptual grounds (Cronin and Taylor 1992). It appears that the difficulty is to formulate expectations before having used the service (Carman 1990), also due to the dynamic character of the experience (Favretto 2004), and the fact of not considering the difference between vector attribute and classic ideal point attribute (Teas, 1993a), and also the possibility of having negative gaps (Smith 1995) even in the case of a global perception of high quality. Brown et al. (1993) raised psychometric concerns about the use of different scores and felt that the gap model would display poor reliability because expectation and perception could be positively correlated.

Despite these criticisms, even today this model is frequently used to assess service quality in different sectors, e.g banking/finance (Paul Choudhury, 2009; Ladhari, 2008), distribution (Genestree, Hersbig, 1996), tourism (Lopez-Toro, Munoz Moreno, 2010; Fick, and Ritchie, 1990) and aeronautics (An Noh 2009). Indeed Servqual "provides a basic skeleton through its expectations and perceptions format, encompassing statements for each of the five service-quality dimensions. The skeleton, when necessary, can be adapted or supplemented to fit the characteristics of specific research need of particular organization" (Parasuraman et al. 1988).

Based on the Servqual other models have been developed in order to assess service quality. These include the ServPerf model in which is considered only the perceptions of performance because of the difficulty of keeping separate expectations and perceptions regarding the various items of service. In more recent years the concept of customer value has been increasingly considered in the models. The Serv-Perval model, for example, considers the relationship between service quality and perceived value by the customer, value that comes from the comparison between benefits and costs. Among the benefits the model considers perceived quality, reputation and emotional response while among the costs are considered monetary and non-monetary costs.

In literature there exists already therefore a wide range of alternatives for the evaluation of the quality of service each of which has strengths and weaknesses. In the present study we took into consideration the Servqual model because, in this case, some of the



limitations of the model are eliminated by the fact that the customers have experienced the service under consideration and then are able to form an opinion about their expectations that is separate from their perception, taking into account the experience gained. Furthermore, the items of the 5 dimensions of the model have been identified with care, by defining items with internal consistency relative to the size of belonging. In this research the Servgual model was used to acquire a Customer satisfaction index (CSI) to verify the relationship between satisfaction and performance. As known, customer satisfaction can be defined as an evaluation of the perceived discrepancy between previous expectations and the actual performance of the product (Oliver, 1999). Therefore it is a result obtained from customer's before purchase comparison of expected function with perceived function and the paid price (Beerli et al., 2004). In every company, and in particular in service ones, it is essential to satisfy customers in order to create value both for customers and the company. For this objective the company must find suitable activities which will solve customers' problems (Gronroos, 2001). In this direction the employee's role appears critical because it is directly involved in the service process. Together with their activity they also define the service quality (with an effect on service perceptions) that is vital in distinguishing the organization from its competitors and gaining competitive advantages (Ghobadian, Speller and Jones, 1994). Reichheld and Susser (1990) considered that by raising customer satisfaction the company can increase their future loyalty and also have positive effects on customer referrals (Hennig Thurau, Gwinner & Gremler, 2002) and customer retention (Rust & Zahorik, 1993). In addition some studies have found a relation between CS and trust (Singh & Sirdeshmukh, 2000) that can be considered extremely important for the financial services industry. Lastly the existence of actionable drivers of CS such as quality, has been highlighted (Zeithaml, Bitner, 1996).

The relationship between customer satisfaction and service quality has been analysed in numerous researches. The various models connecting perceived service quality to customer satisfaction consider the percived service quality and expectations as the main antecedents of satisfaction (e.g. Swan, Trawick, 1981; Tse, Wilton 1988; Johnson, Fornell 1991; Cronin, Taylor 1992; Sprend, Olshavsky 1993). Other researches have examined the relationship between business performance and the quality of service and/or customer satisfaction (e.g Anderson E.W et al. 2004; Terpstra M. et al. 2012). Other models start from trust considering it an important antecedent of performance in terms of customer satisfaction, market growth and financial performance (Stuart, Verville, Taskin, 2012). A real "gap" exists with regards to the analysis of the link between performance and the determinants of service quality perceived by the customer. This study aims to contribute in this way. The analysis has taken into consideration the financial service offered by Allianz Bank FA through the activities performed by its financial promoters.

### The Sample

The analysis was conducted on a sample of customers of Allianz Bank FA agency, located in Lucca. The sample is representative of the total customers of the agency and it was identified through the method of stratified sampling. The total customers of the promoters are 358, classified as:

- 70 Major Account;
- 168 Medium Account:
- 120 Small Account.



The breakdown of customers into the category large, medium and small was carried out on the AUM (value of savings managed by promoters ) of the client. The results obtained are the following:

- < 20.000 euros: small client,</p>
- between 20,000 and 200,000 euros:medium client,
- 200.000 euros: large client.

Later we determined the number of persons of the sample as equal to 57, with a proportion of sampling = 0.159.

Starting from the population and considering the proportion of sampling the sample is as follows:

Tab. 1 – The sample

	idb. i	The sample	
Customers	Proportion of sampling	Cluster of customers	
70	0,159	11	Large client
168	0,159	27	Medium client
120	0,159	19	Small client
358		57	

To obtain the desired sample, and therefore to guarantee a certain level of accuracy in the estimates, we decided to send a greater number of questionnaires than those calculated. In particular, assuming a likely response rate of approximately 60%, i 95 questionnaires were selected to send. This value was divided proportionally according to the composition of the reference sample as follows:

proportion of sampling  $\frac{95}{358} = 0,265$ 

Tab. 2 – The sample

Customers	Proportion of sampling	Cluster of customers	
70	0,265	18	large client
168	0,265	45	medium client
120	0,265	32	small client
358		95	

Below a random selection was made of the customers within the predetermined categories in client portfolios and a code number was assigned to each subject (c1, c2, c3 ..); this code was written on each questionnaire reported in such a way as to meet the data with those related to profitability. The response rate was 65%, which corresponds to 64



correctly completed questionnaires on a sample of 95. Most of the repliers are men aged between 35 and 55 years old, living in the proximity of the financial promoting agency.

### **Performance indicator**

To carry out the analysis about customers' value it was considered important to refer to an indicator of profitability able to express the monetary value generated by the activated relationship between clients and agency. This indicator was calculated using the items of income and costs directly related to this ratio and the value of assets under management to the promoter for each customer. In the formula, the indicator in question was therefore determined as follows:

UT+BA AUM %

### Legend:

- UT are expenses "Una Tantum" perceived by the promoter in connection with the purchase of a service / financial product;
- BA are the expenses on an annual basis relating to management fees calculated on the entire Aum customer:
- AUM is the value of savings managed by promoters.

This percentage is multiplied by the Aum of each customer which provides the annual amount that each person is charged as an expense to the company financial promotion; the company pays a part of this amount to the promoter, which usually varies from 30% to 60%, depending on the client's ability to self-management by the promoter, his professionalism, his results. In general, the higher is the result of this indicator the higher is the profit for the promoter and the company.

### Service quality assessment

In order to carry out the analysis of the quality of service in Allianz Bank FA the Servqual model was referred to. The Customer Satisfaction Index (CSI) is obtained by performing the sum of the gap between perceptions and expectations related to the 22 items. In our analysis it is equal to 0.0379; it can be, therefore, affirmed that customers are generally satisfied with the services provided by the promoters. To fully understand the meaning of the CIS and assess the critical areas the scores of the various sections that are in the Servqual model were analyzed (Tab. 3).

The results show that for some items there is a positive gap between perceptions and expectations while for others the opposite situation is observed.

The next step was to analyze the ability of each attribute to contribute to the generation of satisfaction / dissatisfaction. For this purpose, the correlation coefficient between the scores of the gap of 5 Servqual dimensions and the values of overall satisfaction of the service aggregated by each customer was calculated. The data obtained show all the dimensions considered to be positively related to overall satisfaction (tab.4). Among these, in particular, are tangible aspects and empathy (fig.1 and fig. 2). On the basis of these findings it is possible to suggest to the promoters, and therefore also to the headquarters of Allianz Bank FA, that they focus their attention on these two aspects, especially the



aspect of empathy that contributes significantly to the satisfaction of their customers and that to date is the dimension of the service that shows a 4 negative gap on 5 (v.tab.3). These inputs can be very useful for corporate management that is called on to take decisions to improve business performance through an improvement in the overall satisfaction of its customers.

Tab. 3 – Gap analysis

			Gap	
	1	The information materials of the services are complete and updated	0,19	P>A
Tangib	2	The promoter has a neat and tidy appearance	0,78	P>A
le	3	The office is functional and beautiful at first sight	0,43	P>A
aspects	4	The website is efficient and updated	-0,05	P <a< th=""></a<>
	5	Waiting times to meet the promoter are satisfactory	0,09	P>A
	6	In front of a problem the promoter is interested and ready to solve it	0,02	P>A
	7	The Promoter respects the time of appointments	0,13	P>A
Reliabi	8	For any questions or problems you can always find the promoter	0,05	P>A
lity	9	When the promoter makes a promise, he always keeps it	-0,28	P <a< th=""></a<>
	10	The promoter is always available to attend to his customers' needs	0,00	P>A
	11	When a problem occurs the promoter solves it quickly	-0,13	P <a< th=""></a<>
Respo	12	The promoter will communicate accurately to their customers when it is executed the service provision	0,16	P>A
nsiven ess	13	The promoter is capable of providing the required financial solution	-0,09	P <a< th=""></a<>
	14	The behavior of the promoter inspires confidence in the customers	0,00	P>A
	15	you feel safe during the service provision	-0,30	P <a< th=""></a<>
D	16	The promoter is always kind and polite	0,30	P>A
Reassu rance	17	The promoter knows well how to meet all his requirements	-0,06	P <a< th=""></a<>
	18	The promoter has the skills required to meet all of its needs	0,13	P>A
	19	The promoter understands your specific needs and is able to direct the choice of investment	-0,09	P <a< th=""></a<>
	20	It's easy to learn how to surf the site to take advantage of online services	-0,30	P <a< th=""></a<>
	21	The call center is available and efficient	-0,10	P <a< th=""></a<>
Empat hy	22	Purpose of the promoter is to serve the interests of the customers in the best possible way	-0,20	P <a< th=""></a<>

Source: Our elaboration

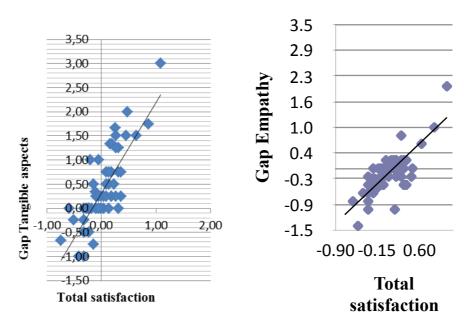


Tab. 4 - Gap analysis, Cronbach's Alpha and Correlation between the determinants of service and total satisfaction

Dimensions	Average gap	Cronbach's Alpha	r
Tangible aspects	0,3359	0,7738	0,799
Reliability	-	0,7609	0,575
Responsiveness	- 0,0156	0,8255	0,696
Reassurance	- 0,0156	0,5896	0,538
Empathy	- 0,1154	0,7024	0,790

Fig.1 Correlation tangible aspects and total satisfaction

Fig. 2 Correlation empathy and total satisfaction



Source: Our elaboration

### Value analysis

The value analysis is developed using a performance indicator represented by the risky financial instruments, the percentage of costs that the client must support related to trading commissions, the operation of the securities account and fees for consultancy; while for some asset management products there will be entry fees, exit or switch. In particular, this indicator is higher with the increase of risky assets contained in the portfolio of the client; in the present study an average value of 0.52% was calculated. This percentage represents the average profitability that the Agency can boast. In order to understand how the value of customer satisfaction is correlated with the value generated by the promoter we analyzed the correlation between the CSI of each individual customer and the relative profitability percentage.

Between these two components seems to exist a low positive correlation. The value of the Pearson coefficient is in fact 0.0949, that is not significant (v.tab 5) (p-value 0.4558). In a second step a greater level of detail with the consideration of the components of quality assessment was considered (tab.5).

-.0716082

.4282646

.1424839

.8887881



			GAPAspTa				
	Profitability	CSI	n	GAPReliab.	GAPResp.	GAPReas.	GAPEmp.
Profitability	1,0000						
CSI	0,0949	1,0000					
	0,4558						
GAPAspTan	0,3322*	0,1165	1,0000				
	0,0073	0,3595					
GAPReliab.	0,1688	-0,1127	0,2111	1,0000			
	0,1825	0,3753	0,0941				
GAPResp.	0,4557*	0,0048	0,3964*	0,5349*	1,0000		
	0,0002	0,9699	0,0012	0,0000			
GAPReas.	0,4536*	0,0859	0,2058	0,3720*	0,317	1,0000	
	0,0002	0,4995	0,1028	0,0025	0,0107		
GAPEmp.	-0,019	-0,0515	0,4679*	0,0833	0,1502	-0,0126	1,0000
	0,8814	0,6858	0,0001	0,513	0,236	0,9216	

Tab. 5 - Correlation Profitability, CSI and service quality dimensions

The data obtained bring out the responsiveness and reassurance whose areas of satisfaction are most related to profitability. It is therefore possible to affirm that the essential components to guarantee a satisfactory return, which is then reflected in a higher value for the company, are the technical knowledge of the sector and the ability to interact with customers.

To deepen the analysis a linear regression was performed considering profitability as the dependent variable and independent variables related to the 5 gap of the Servqual model, age and gender of customers. It 'was decided not to exclude from the regression analysis the gaps with no significant correlation to test whether, despite this initial result, a relationship between them and the dependent variable was noted. The results are reported in the following table:

Tab. 6 - Linear regression (Profitability as dependent variable)									
Profitability	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]				
GAPAspTan	.080304	.0419543	1.91	0.061	0037407	.1643486			
GAPReliab.	1867231	.0984669	-1.90	0.063	3839761	.0105298			
GAPResp.	.2182717	.0804762	2.71	0.009	.0570585	.3794849			
GAPReas.	.2746879	.0899496	3.05	0.003	.0944972	.4548786			
GAPEmp.	.0475429	.0398698	-1.19	0.238	1274116	.0323259			
eta	0033926	.0021095	-1.61	0.113	0076185	.0008333			

Prob > F = 0.0001; R-squared = 0.4167; Adj R-squared = 0.3437

0.66

5.73

0.510

0.000

.0534365

.1149446

The linear regression is significant (p-value <0.05); the R-squared is 0.4167 and the Adj R-squared is 0.3437, values that suggest that the adaptation of the model is quite good.

MF

cons

.0354379

.6585264

<sup>\*</sup> Significant at  $\alpha = .001$  or better level of significance



Taking into account the data, disaggregated results confirmed the non-significance of the gap relative to the reliability and empathy aspects. Even the gap relative to the tangible aspects is not significant (p-value 0.061> 0.05), albeit with gap content. Therefore, these dimensions of the model Servqual do not seem to have effects on profitability. Also the variables age and gender were not significant while the gap responsiveness and reassurance appear, even in this case, significant. These activities are indeed very important in order to understand the customer's needs and therefore to allow effective and highly personalized advisory services. The latter are therefore two constitutive elements of the relationship of trust that is established between the investors and the promoters. It is just confidence that can affect a greater participation of the individual in equities (which results in greater returns for the promoter) due to a lower subjective probability assigned to the possibility of misconduct by the promoter.

### Final considerations and limitations

The results obtained confirm the importance of trust for services characterized by high perceived risk, such as financial services. In particular, responsiveness and reassurance were the service dimensions with greatest impact on the performance of the promoters and, therefore, on the corporate value. The results show how management can acquire useful information for the improvement of service quality, especially regarding those aspects that seem to be more related to company performances. Service quality, therefore, assumes a strategic importance and a systematic application of this analysis could be important in order to maintain or improve a position of competitive advantage. The main limit of this research is the restricted dimension of the sample. Thus, the findings should be verified on a numerically higher sample that becomes more representative of the universe of customers of Allianz Bank FA. In addition, it would be useful to consider more years in order to determine whether a possible change in the level of the service quality assessment is associated with a change in profitability. In this regard, it could be useful to consider more items or to refer to an analytical model of service quality that takes into greater consideration the perceived value by the customer such as, for example, the Serv-Perval model. Finally, it could be useful to split the sample into clusters based on variables such as importance of the client, duration of the relationship with the agency, the search for benefits.

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# Network brand management. Issues and opportunities for small-sized hotels

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### Abstract

In the worldwide competition for attracting tourism flows, a strong brand can increase the capability of a hotel to be recognized, appreciated and visited. Thus, a brand can represent an important key success factor, but it should be efficiently and effectively managed. The hotel brand should be coherent with the brand of the network (i.e. a franchising chain) the hotel belongs to and with the brand of the territory where it is located. Attention to the brand architecture helps hotels to leverage and reinforce the positive image of the network and the value proposition of the specific place. Since SMEs represent the main actor in the hotel industry, this paper aims to investigate whether owners/managers of small-sized hotels are aware of the importance of branding, and to explore which brand management activities they perform alone and within the network. Empirical analysis is performed with reference to the Province of Rimini, a famous tourism destination in Italy.

Keywords: small-sized hotels, brand management, brand architecture, network brand

### Introduction

Academics have already recognized the increasing importance of intangible resources in the tourism sector and the hotel industry in particular (Krambia-Kapardis and Thomas, 2006; Nemec and Mihalic, 2007; FitzPatrick et al., 2013). Among the intangible resources that help a tourism organization differentiate from its competitors and attract and retain customers, the company brand plays a fundamental role (Bailey and Ball, 2006). Brand is a key success factor and source of competitive advantage, which impacts customer satisfaction and leads to revenue (O'Neill and Mattila, 2004, 2010; Hong-bumm Kima and Woo Gon Kim, 2005; O'Neill and Carlback, 2011; Magablih and Muheisen, 2013).

However, small businesses – which represent the majority of actors involved in this industry in Italy and Europe – seem to possess a smaller extent of intangibles in comparison to larger companies (Jerman et al., 2009). SMEs might have difficulties in building a proper marketing strategy, promote their tourism offer and carefully define and improve a brand to increase customer loyalty and sales because they usually lack managerial competence and resources. Maintaining brand equity and/or gaining brand value requires a comprehensive understanding of the brand, its target and the company's overall vision. In other terms, it involves the development of a strategic plan (Aaker, 1991). Thus, brand management could appear to be an activity too complex for the SMEs to accomplish.



To overcome similar limits due to resource shortage, Italian SMEs have experienced several forms of contractual inter-firm cooperation like consortia, associations and product clubs – an organizational and marketing alliance that brings together a group of hotels with the purpose of promoting the tourist product of the associated companies – (Forlani, 2005; Lombardini, 2006; Pencarelli and Splendiani, 2008). More recently tourism organizations have started collaborating through the 'network contract': a new type of cooperation contract emanated by the Italian Government in 2009 with the aim to increase SMEs' national and international competitiveness. Latest research (Aureli and Forlani, 2013; 2015; Del Baldo, 2014) indicates that tourism organizations are using the network contract to promote the network's members and accomplish marketing initiatives; increase the visibility of the territory where members are located; share ideas and favor the adoption of innovative processes; achieve economies of scale and scope; reach new clients and augment members' international expansion.

The network contract creates stable relationships which help SMEs develop new commercial opportunities, achieve growth and improve competitiveness like other formal alliances (Chathoth and Olsen, 2003; Pansiri, 2008). However, it differs from franchising agreements commonly used in the hotel industry (Aureli and Forlani, 2015). While members of hotel chains have to share several similarities and provide a standardized service, the network contract is more similar to consortia, which tend to preserve the identity and autonomy of the members.

The network contract offers hoteliers the opportunity to benefit from a common network brand (like for hotel chains) capable of differentiating network members from other competitors. In addition, when the single hotel brand, the network brand and also the brand of the territory where hotels are located are linked together, all members might leverage the positive image of the network and the place (tourism destination). With proper brand architecture several synergies can be exploited (Kavaratzis, 2004; Dooley and Bowie, 2005; Hanna and Rowley, 2011). Coherently, this study aims to investigate current hotel owners/managers' awareness on the importance of branding, and explores which brand management activities they perform alone and/or within the network. Questions we aim to answer are the following: (RQ1) Do small-sized hotels consider hotel brand a key success factor? (RQ2) Do small-sized hotels devote attention to brand management? (RQ3) What is the role of the hotels' networking strategies in brand management?

Findings from interviews indicate hoteliers' awareness on the role of brand in the competitive arena and the type of brand management activities they carried out. Moreover, they reveal whether formal alliances help small-sized hotels create an entity capable to promote the network and its members through the creation of a strong network brand. Among brand management activities, particular importance is given to brand architecture. Findings reveal whether brand architecture has been properly designed (i.e. there is consistency among the hotel brand and the destination brand) and furthermore how hotels can benefit from the attractiveness of the tourism destination and the reputation of its brand. Within the majority of hotels investigated here, there are no deliberate brand strategy processes at the corporate level. Moreover, brand strategy is absent at the network level because networks were created mainly for other purposes (i.e. to reduce the cost of provisions, to promote the local territory).

The main contribution of this study refers to its focus on small-sized hotels, while international literature on intangibles and brand management has mainly focused on large



listed hotel companies (O'Neill and Mattila, 2004, 2010; O'Neill and Carlback, 2011; FitzPatrick, 2013).

Literature review

### Brand and brand management

According to the American Marketing Association, a brand is 'a name, term, design, symbol or any other feature that identifies one seller's good or service as distinct from those of other sellers'. Similarly, Kotler and Scott (2002) state that a brand is 'a name, term, sign, symbol or design, or combination of the same, used to identify the products or services of a seller or group of sellers and distinguish them from those of their competitors', while Aaker (1991) affirms that a brand is a 'a set of assets or liabilities linked to an identifying feature (trademark, name or mark) which add to (or reduce) the value generated by a product or service'. French researcher Séquéla advocates the concept of the brand-person, as a brand takes on not just the name but also the 'soul of the product'. The brand name can be linked to tangible characteristics, while the soul refers to the universe of closely connected values. Following Séquéla's approach, Pratesi and Mattia (2006) state that 'a brand has its own expressive meaning; it is therefore a combination of tangible and intangible signs and symbols which create its face and personality, as for a person'.

Brand management scholars (Aaker, 1996; Kapferer, 1997; Nandan, 2005) emphasize the difference between brand identity and brand image. Kapferer (2008) terms brand identity the brand's meaning as put forward by the firm. It is the way a company wants to present its brand to its target group. Brand image, on the other hand, is the consumers' perception and interpretation of the brand's identity. Academics typically conceptualize brand identity and image as multi-dimensional constructs of which brand personality is an important component (Patterson, 1999; Hosany, Ekinci and Uysal, 2006).

Given today's brand's importance and its vulnerability to customers' and stakeholders' negative critics, it is increasingly important to correctly manage a brand in order to ensure that its potential can be fully exploited and enhanced. Each company should manage its own brand or brands by adopting a branding policy defined on the basis of the products sold, the context and the image it intends to promote (Aaker and Joachimsthaler, 2000b. Brand management or branding refers to the 'process by which the brand is laden with meanings, transforming it into a 'living' entity with its own expressive capability by means of which a complex combination of actions are planned and carried out in compliance with a single strategic intent: to aid the lasting growth of the business by consolidating the brand's reputation and distinctiveness' (Pratesi and Mattia, 2006). Branding activities essentially consist of (Keller, Busacca and Ostillio, 2005; Pencarelli, Betti and Forlani, 2009):

- Conception and design of brand identity (which translates into the definition of three key components: the brand name, the logo or mark and the pay-off or motto, which all enable a brand identity to be visually distinctive, recognizable and identifiable)
- Definition of the positioning sought
- Creation and implementation of the marketing plan of the brand (branding)
- Protection of property rights and legal safeguarding of the brand
- "Fueling" supporting the brand in economic terms and through activities (branding)
- Monitoring and control (brand audit).



In addition, a company selling more than one product and/or operating in different markets should define which and how many brands to use in the light of the so-called brand architecture. The issue is to decide whether to use the *corporate brand* (name, logo, etc. of the company which represent the organization as a whole, its history, values and culture) to identify all items of its product range or create a *brand portfolio*, which encompasses different brands for different products and businesses. Large corporations may define the *product brand* (which identifies the specific nature of each product with its own exclusive positioning), the *line brand* (this refers to a whole range of complementary products) and the *range brand* (it can be adopted as an alternative to the corporate brand to sell products stemming from the same competence or expertise in different categories).

'Brand architecture is an organizing structure of the brand portfolio that specifies brands' roles and the nature of relationships between brands' (Aaker and Joachimsthaler, 2000a). On one hand, a company may prefer to use its corporate brand as a 'Branded House'. In this case the organization uses its own name to identify the whole array of products, thus maximizing the brand extension. When this policy is implemented, the organization achieves economies of scale in communication and distribution and it exploits its positive image by providing credibility to the various stakeholders (Aaker, 2004a). However, the weakening of the brand's positioning related to one single product has the potential to negatively affect all company's goods and businesses. On the other hand, a company may opt for a multibrand policy (called 'House of Brands'). In this second case a company creates, uses and manages a combination of brands, which identify and differentiate its products and services within a single category. The management of a brand portfolio appears guite complex (Aaker, 2004b). To fully exploit the benefits of this brand policy each brand should be considered both as a separate entity and in relation to the others. Conversely, this approach reduces the risks usually associated to the 'Branded House' strategy, since the negative performance of one brand does not affect other portfolio's The two mentioned approaches are at the opposite ends of a continuum. A company may decide to use the same brand identity for all of its portfolio's products, relying on the magnitude of the corporate brand; or it may define various brands, which are independent one from each other and from the corporate brand or choose a position in the middle.

Brand usage in tourism and the relevance of the destination brand

An effective and efficient management of brands and brand architecture is important for tourism businesses like for every other organization. In fact, in the tourism domain, the customer's perception of brand value associated to a hotel, for example, can strongly impact its ability to attract and retain travelers. However, there are two additional aspects (or levels) to be considered. First, the lodging firm may decide to join a branded hotel chain (a chain of franchisee hotels, a proprietary chain, etc.), placing its corporate brand and the chain brand side by side. Second, the brand of the tourism destination where the company is located may strongly impact its perceived value.

Consequently, in tourism studies it is necessary to focus on how the hotel brand relates to the network brand (brand of the chain, consortium or association the company belongs to) and, even more important, how it relates to the brand of the destination (Pencarelli and Splendiani, 2008; Pencarelli, Betti and Forlani, 2009; Aureli and Forlani, 2013).

A destination brand is 'a name, symbol, logo, word mark or other graphic that both identifies and differentiates the destination; furthermore, it conveys the promise of a



memorable travel experience that is uniquely associated with the destination; it also serves to consolidate and reinforce the recollection of pleasurable memories of the destination experience' (Ritchie and Ritchie, 1998). Similar to destination brand is place brand, usually referred to a city, region or nation (Kavaratzis, 2004; Dooley and Bowie, 2005; Kerr, 2006; Balakrishnan, 2009; Hanna and Rowley, 2008; 2011). These terms are used interchangeably. Although, place brand has an important difference: it represents a promise to the potential users of the area (not only tourists), an expectation of performance and a sign of integrity and reputation. The aim of place branding is to attract people and talents, businesses and investments and not only tourists.

In both cases, since brand management pertains to a specific geographical territory, it is assumed (by politicians and academics) that brand management activities and related tourism actions should be attributed to public bodies like municipalities (Pencarelli et al., 2013) and inserted in the larger context of territorial government.

A proper brand management requires the definition of the most appropriate brand elements and the most suited means used to convey the brand to its target audience and ensure its appropriate reception in order to provide a unified representation of the different components of the geographical area's offer (Balakrishnan, 2009; Hanna and Rowley, 2011). In addition, literature on brand architecture and place branding suggest that brands of different objects as well as brands of different places can be intentionally managed to link individual brands together and generate strong associations capable of influencing consumer purchase intentions (Dooley and Bowie, 2005; Kavaratzis, 2004 and 2012; Hanna and Rowley, 2011). Consequently, it is very important to verify if all the different subjects located in a territory eventually pursue contrasting objectives and communicate a divergent image to travelers. Lastly, it is essential to preserve harmony in the architecture of a tourist brand, creating and distributing value to local stakeholders. Well-known place brands associated with positive values and a good reputation, capable of attracting tourists, do not only represent valuable sources of competitive advantage for the country. When place brands are consonant with the local actors' values and brands, they can enhance the effectiveness of the marketing policy of the latter, increasing the potential benefits achievable.

### Hotel networks

In the hotel industry, networking strategies are quite widespread. Hotels may informally cooperate and/or create formal alliances with restaurants, travel agencies, transportation companies, etc. in order to develop integrated tourism packages and offer an 'all-in-one experience'. They can also build horizontal networks, usually in the form of franchising chains (Medina-Munoz and Garcia-Falcon, 2000; Pansiri, 2008). Actually there are several forms of inter-organizational cooperative arrangements used in the tourism sector: joint venture, equity participating alliance, brand sharing, franchising, licensing, marketing and distribution agreements, joint selling or distribution, agreement for ICT sharing, joint purchasing and equipment/office sharing (Pansiri, 2008).

At the international level independent, privately owned, small-sized hotels seem to have given way to larger multinationals and multiple brand affiliations (Bailey and Ball, 2006; Lomanno, 2010). According to Slattery (2003) 31% of all hotel bedrooms worldwide were affiliated to a branded hotel chain in 2002, a figure forecast to increase to half of the total by 2030. International studies suggest that hotels should grow in size to face increasing competition and avoid inefficient management practices due to power and knowledge concentration in the owners-proprietorship hands (Schulze et al., 2001). On the contrary,



Italy still seems to be strongly characterized by small owner-run outlets operating in the same fashion for generations (Ferri, 2009). These hotels prefer informal collaborations and some specific types of contractual cooperation: associations, consortia and product clubs. Franchisee agreements - typical in US - are less widespread here.

What are benefits of belonging to a hotel chain or franchising network? Brand affiliation brings a well known name (name recognition), brand awareness, marketing activities, staff training, access to purchasing discounts and some services (i.e. a central reservation system, other management systems, loyalty programs) that independent operators might not be able to match. Some of these benefits might also be achieved through cooperative purchasing groups or other alliances. Thus, a brand affiliation's major value consists in a strong brand which translates into higher occupancy rates, deriving from customers attracted by the brand's promises of experiencing a certain quality and emotion. In fact, hotel guests rely on brand names to reduce the risks associated with staying at an otherwise unknown property (O'Neill and Xiao, 2006). Moreover, the study of O'Neill and Xiao (2006) indicates that when brand affiliation is associated to a reputation for high quality service, hotels can record an important increase in revenue.

Nevertheless, O'Neill and Carlback (2011) highlight that branded hotels do not always record better financial performance compared to independent businesses, especially when high franchising fees are requested. Moreover, although the alliance or network brand should signal to the customers the precise quality level they should expect from single hotels, previous research shows that franchising tends to have a detrimental impact on overall system quality when it involves too many subjects (Michael, 2000). The high numbers of hotels belonging to the network does not allow for proper quality controls from the franchisor, thus single hotels might create dissatisfied guests who criticize the brand as a whole. This translates into lower occupancy levels for all network members. Lastly, it is important to note that branding decisions are controlled by the franchisor while local partners (franchisees) can decide only on lower-risk marketing aspects (e.g. pricing) (Dev, Brown, and Zhou, 2007). For this reason, individual hotel owners have to be sure that the chain's branding strategies are appropriate for its property (O'Neill and Mattila, 2006).

When a formal network or hotel chain is formed, brand architecture issues arise. For example, *Choice Hotels International* preferred a 'House of Brands' strategy (Dooley and Bowie, 2005) to make a distinction among its various hotel concepts (which refers to the specific type of service offered) like 'quality hotels' vs. 'comfort suite hotels' (O'Neil and Mattila, 2004). This strategy simultaneously distinguishes hotel brands from each other and identifies them as all being part of a unified organization, thus differentiating the network from its competition. In the case of property chains, individual brand names disappear and the parent company name prevails for all members. These hotels are usually located in different cities and regions all over the world but they use the brand to signal to customers the consistency in the quality offer. In fact, brand names give customers important information about the product/service (Briucks, Zeithaml and Naylor, 2000).

As we described above, choices of brand architecture emerge as the outcome of a deliberate decision-making process, usually conducted at the corporate level of a hotel chain by the strategic department. What happens in the case of formal alliances and contractual network agreements in comparison to franchising? Is this decision and those regarding other brand management activities the outcome of a shared process? Are SMEs' alliances dealing with this issue? For example, in the study of Alonso (2010), which



focuses on Australian SMEs, alliances do not deal with brand aspects. The main expected benefit is that strong collaborative relationships can potentially enhance a destination's image with further implications for the area's promotion and its marketability.

### Methodology

In order to collect data from Italian small-sized hotels participating in horizontal networks, authors decided to focus on the Province of Rimini: a quite famous beach location on the Adriatic Coast, known both at the national and international level, with about 60,000 rooms available and characterized by a high level of competition (many three-star and two-star hotels offering similar services at the same price). Key and distinctive variables of Rimini's hotel offers are staff cordiality and cheap rates in comparison to other Italian locations (Rossini, 2003).

From the national dataset of the Chambers of Commerce, authors found only one network contract in Rimini, named "Made in Rimini- Holidays" recently formed (May 2013) by three hotel consortia. It is a network of networks and thus particularly interesting for our research purposes. The three consortia group more than 100 hotels altogether, which represent about 10% of the total lodging offer.

Due to time and resource shortage, authors decided to identify three hotels, randomly selected, for every formal alliance. Each hotel represents a case study (Yin, 2003) whose characteristics and brand management activities have been investigated through direct interviews. Because of the complexity of the topic under investigation (which can hardly be translated into closed-ended questions) and considering the low response rate of SMEs to mailed questionnaires (see the studies cited by Alonso, 2010), authors opted to conduct face-to-face semi-structured interviews with hotel owners/mangers at single hotel premises. Interviews regarded the following aspects.

- HOTEL BRAND. Interviewees were asked to express their agreement or disagreement (on a 5 point Likert scale) on considering brand as a key success factor, the impact of financial resources on brand success and the actual popularity of hotel brand at local, national and international level. This information is intended to highlight possible gaps between what hotels aspire to have and what they have achieved so far in terms of brand popularity.
- BRAND MANAGEMENT. Hotel owners/managers were asked to tell the story of how they (or their family) chose the hotel name, logo and payoff in order to understand how the brand identity was designed. Moreover, linkages to or inclusion of territorial brands in the hotel brand where investigated. Questions also regarded the most important activities performed throughout the last three years to maintain the hotel brand and the amount of financial resources devoted to them, including activities of brand monitoring. Answers are expected to help understand if the hotel name is conceived as a brand and which are the most recurrent activities of branding. Particular attention is devoted to brand architecture considered within brand management activities.
- NETWORK PARTECIPATION. The questions concerned hotels' objectives and expected benefits associated to network participation.



To increase authors' knowledge of the three consortia and provide a richer context for understanding of the phenomenon under examination, the President or Vice-President of each consortium was interviewed. At the same time, authors analyzed official websites and other public documents. In the following paragraphs, there is a presentation of the network contract "Made in Rimini" and the three consortia. Then the data derived from interviews is discussed.

Case study analysis

Objectives, members' characteristics and brand of the hotel networks

"Made in Rimini-Holidays" is the network contract built to increase the competitiveness of the hotels belonging to the three consortia that formed it. Its strategic objectives are: to develop and qualify members' tourist offer; improve members' ability to define and promote their individual tourist offers; promote the territories where they are located; create an integrated tourism offer; increase the hotels' capacity to innovate; identify new market opportunities and augment members' presence in national and international markets. To reach these results, the common entity leading the network contract is entrusted to promote the area of Rimini and its hotels, develop projects capable to enhance members' tourist offer, organize training courses, conclude common agreements with suppliers. define a joint communication strategy, create a website and a common brand, launch educational tours, commercial initiatives and advertising campaigns toward both national and international markets. Achievement of these objectives will be assessed, not for the moment, but every year in terms of the number of new clients, improvements of the competitive positioning and clients' satisfaction measured through the use of questionnaires. However, at the time of writing, the network contract has only built its official website filled with institutional information. Direct booking of hotels is not possible, nor foreseen in the near future. For our research purposes it is more interesting to analyze the three consortia.

a) The consortium "Hotel Tipici Riminesi" (Typical Hotels of Rimini) was built in 2010, although several members experienced a common collaboration since 2001. It groups 34 hotels (82% are three-star hotels while others record lower hotel quality rankings) located in few fractions of the city of Rimini. These are characterized by the following key elements that are conveyed in all marketing and communication activities: friendliness, attention to local traditions, typical gastronomy, authentic atmosphere and love for the local territory. These aspects actually build the distinctiveness of the hotels' tourist offer and represent a prerequisite for joining the network. To belong to this consortium, members have to own a list of specific characteristics regarding: hotel location (near the sea), structural aspect (a vernacular building style), ambience (the atmosphere should link to local traditions and history also by displaying specific objects and symbols inside the hotel), management (family run hotels with at least 5 consecutive years of hotel management, family hospitality and a welcoming atmosphere, being independent hoteliers), food (inclusion of local dishes in the menu) and relationship skills (hoteliers should have a warm personality and also be storytellers). In line with these characteristics, both the network's name and logo refer to the city of Rimini, emphasizing the local culture and its history (i.e. displaying ancient city buildings). As you can see, these aren't all of the key components of a brand identity (payoff is absent). However, the network is aware of how important a brand can be when trying to differentiate from competitors, thus it has decided to register the network name. Network's aims are: to promote hotels and the territory where they are located, attract foreign travelers, make joint purchase and offer staff training to the associated hotels.



- b) The second network is "Torre Pedrera Hotels e co" created in the form of a cooperative. It is 25 years old and groups 42 hotels (74% are three-star hotels). Its main goal is to promote a fraction of the city of Rimini named Torre Pedrera, which was marginalized in the past because of its location, by providing information about lodging firms, public services and events to both tourists and inhabitants of the area. The network aims to enhance the uniqueness and identity of the fraction, encourage members to work together, increase hotels' room occupancy (the network's website also has a booking system) and augment hotels' political bargain power in relation to the municipality of Rimini and other public institutions. Given these objectives, the network's name was designed to merely emphasize the location and the logo actually represents the tower located in the fraction. However, the name and logo were not created nor are currently conceived as a brand. There are no shared values or similarities among hotels, which are at the basis of the network brand identity. Hotels have only the location in common. Coherently, the network website does not communicate hotels' characteristics but it promotes the destination of Torre Pedrera, describing its personality and making promises for a remarkable tourism experience.
- c) The last consortium is "Piccoli Alberghi di Qualità" (Small Quality Hotels). It was born in 1999 but originates from a previous experience of cooperation launched by the municipality of Rimini at the beginning of '90s. Today it groups 31 hotels (61% are threestar hotels) located in Rimini and other nearby cities (Riccione, Cattolica, Misano). These hotels share several characteristics: a small dimension (a limited number of rooms), being family-run, a friendly atmosphere, a highly personalized concept of hospitality, an excellent price-quality ratio, fine cuisine and genuine home-made cooking. The network's goal is to combine the values of the traditional hospitality of the region (Romagna) with the style and efficiency of modern hotels. Actually, it is the first quality certified hotel network in Italy, which received ISO 9001 in 2002 because of its hotels' high professional standards, methods and procedures. The motto is: a fine service at a reasonable price. Moreover, the consortium is engaged in environmental sustainability and social responsibility. Various members have undertaken the consortium's environment qualification project devoted to safeguard the environment (i.e. activities directed to save energy, staff training in waste disposal and water), while the consortium itself has developed a set of behavioral rules that are informed by concepts of social and ethical responsibility. In this case, there is no link to the territory, in neither the network's brand name or in the logo. Associated hotels are located in different cities but still within the same Province. The consortium does not exclude the possibility to expand to other cities in the future.

### Findings from hotels' interviews

Results from case study analysis are synthesized in the following figure. They indicate that small-sized hotel owners consider hotel brand an important key success factor on which the popularity strongly depends on the amount of financial resources invested. At the same time, hotel owners are aware of the poor popularity of their individual hotel brand both at the national and international level. Sometimes, the hotel brand is scarcely recognized even in the local area of Rimini.



### Fig. 1: Data from interviews

Hatala		D		D	E	F		Н
Hotels Star Rating	A 3	<b>B</b> 3	<i>C</i> 3	3	<b>E</b> 2	2	<i>G</i> 2	2
Ownership (O) or Management (M)	0	0	M	0	0	0	0	0
N° rooms	94	57	32	58	31	25	25	21
N° employees	20	10	8	15	8	5	6	7
Target	Families:	Families	Families	Families	Families; retired	Families	Families - young	
Aury Ci	Bussiness men	7 umanes	7 umanes	1 umanes	people; couples	1 umanes	couples	senior couples
Foreign tourists %	20,00%	20,00%	15,00%	8,00%	10,00%	10,00%	1,00%	10,00%
N° networks in which partecipate	3	2	2	1	1	1	1	1
1 1		RQ1 - Do small-	sized hotels conside	er hotel brand a key	success factor?			
Brand as key success factor	3	3	5	3	4	4	3	4
Impact of financial resources on	5	4	5	4	5	5	4	5
brand popularity								
Hotel brand popularity (local)	4	5	4	4	2	2	3	2
Hotel brand popularity (national)  Hotel brand popularity (international)	3	1	1	1	1	1	1	2
	, ,	1	1	1	1	1	1	1
		RO2 – Do small	-sized hotels devote	attention to brand	management?			
Origin of the hotel's name	Historical	Historical	Historical	Historical	Historical	Historical	Made ad hoc	Historical
Creation of a brand identity to	No	No	Yes	No	Yes	No	Yes	Yes
communicate the hotel								
Brand identity system (Logo,	Revision of the	No	Improvement of	Revision of	Revision of	Revision of the	Registered	Systematic use of
Naming, Payoff)	historical name in		historical logo and	historical name to		logo to evoke the	trademark;	logo in hotel
	the phase of		hotel name from a	emphasize hotel's	communicate the	sea and summer	familiar and easy	communication;
	requalification and enlargement		brand management	location "by the sea"	concept of beach and "the sea"	(inserting a boat and the sun)	to remember name; payoff:	payoff: "A small jewel just a few
	of the hotel		management perspective;	seu	ana ine sea	ana ine sunj	"Your house by	steps from the
	oj me notei		seasonal slogans				the sea"	steps from the sea"
Audiolida	Contra	Contra		Barran I Cal	Contra	Advantin C		
Activities carried out to support the hotel brand	Content management on	Content management on	Theathrical setting, use of	Renewal of the Hotel website;	Content management on	Advertise on free press; content	Content management on	Content management on
notei brana	Hotel website, FB,		mascot	presence on the	Hotel website, FB,	management on	Hotel website, FB,	
	Youtube; trade	Twitter; presence	represening the	tourism portal	Flickr, Twitter,	Hotel website, FB,	creation of	Google+;
	fair partecipation		summer; content	"Rimini beach";	Youtube;	Twitter, Pinterest,	newsletters;	partecipation to
	(alone and with	(Tripadvisor &	management on	presence on OTA	promotion on the	Google+;	limited advertising	the consortium's
	the consortium)	OTA); advertising	Hotel website, FB,	(Venere.com,	local free press	participation to	on newspapers	websiste and other
		on newspapers;	Pinterest,	Booking.com),	and internet	the consortium's		local tourism
		trade fair	Google+; seasonal	FB, Twitter	portals	website and local		portal (i.e.
		partecipation with the consortium	greetings cards; presence on			tourism portals (i.e.		Riminibeach); seasonal
		ine consorium	consortia's			Riminidamare)		greatings; trade
			websites; trade			Kimimuumure)		fair participation
			fair participation					with the
			(alone and ith the					consortium
			consortium)					
Financial investments in promotion	3,00%	3,00%	7,00%	2,50%	2,50%	5,00%	20,00%	5,00%
(% of annual turnover)							15 1: 07:1	11 1 0 1
Mechanisms of brand auditing (in	Monitor	Monitor	Monitor	Monitor Booking	Monitor	Monitor	Monitor OTA,	Monitor Google
terms of popularity and reputation)	Tripadvisor, OTA & social media;	Tripadvisor, Google Analytics,	Tripadvisor; monitor the N°	& Tripadvisor; direct contact and	Tripadvisor (seldom and only	Tripadvisor	Google Analytics and Tripadvisor	Analytics and Tripadvisor
	direct contact with		requests for	feedback from	when a new guest		ana Impaarisor	Tripaurisor
	guests; monitor		information	hotel guests	review appears)			
	the N° requests		received					
	for information							
	received							
T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	. n.	<i>T</i> D <i>I</i>	p: ::	n	n:	n	n	10
Territorial (place) brand associated with the hotel	Torre Pedrera – Rimini's Coast	Torre Pedrera – Rimini –	Rimini	Rimini	Rivazzurra - fraction of Rimini	Rimini	Rimini	Miramare - fraction of Rimin
man inc noici	Kinani s Coust	Romagna's Coast			jiacuon oj Kimini			jracuon oj Kimini
Reasons for the choice of the	Torre Pedrera is a		Rimini has a	Rimini is the hotel	Rivazzurra	Rimini is the hotel	Emphasize hotel's	Rimini is a large
territorial brand	very quiet place	area around	greater visibility	location	because it is the	location	location in the city	
	and its image is	Rimini and its	while Torre		specific hotel's		of Rimini and not	indicates
	more consistent	characteristics	Pedrera is small		location		in any of its	customers that the
	with the hotel's	(tranquility)	and not well				fractions	hotel is walking
	target		known					distance from the
	P.	03 = What's the rol	le of hotels' networ	king strategies in b	rand management?	 		beach
Pageone for joining formal nat-		-	Cost saving;	First to enhance			To increase as d	To inform
Reasons for joining formal networks with other tourism enterprises	Cost saving, promotion and	Promotion and commercialization	Cost saving; Communication	the territory, its	To differentiate from competitors	To increase the capacity of	To increase and communicate	customers about
omer tourism emerprises	marketing; More	-	and trade fair	traditions and	(by emphasizing	communication;	hotels' quality; to	
	recently also	booking); To liven	partecipation; Use	products; Second	local	Cost savings;	strengthen the	small hotels by
	internationalization		of the booking	to partecipate in	charactericists);	Create activities	whole category of	using the network
	n	Torre Pedrera	portal	trade shows; Cost	Create events and	and services for	small hotels in	brand; Share
				savings	activities for	guests (guided	Rimini	experiences and
					clients; Reduce	tours)		problems
Changes in brand management	No	No	No	No	No	No	No	Yes concept of co-
derived from/after the collaboration								branding
Network brand popularity (local)	2	5	5	4	3	2	3	3
Network brand popularity (national)	2	3	2	1	1	1	1	2
Network brand popularity	1	3	I	1	I	1	1	2
(international)	W 10 d	W.	N7	N7. 1	N7. 1	No. of a	Nr. 71 7	No. of .
In customers' perception, the network		Yes	No	No, however the network brand	No, however it	No, the two	No, high investments are	No, the two
	aerwork brand	I .		neiwork brand	could be a benefit	brands are placed	invesiments are	brands are placed
brand replaces/could replace the hote brand					if it works like for	side by side	needed to achieve	side by side
brand replaces/could replace the hote brand	functions it will			represents an	if it works like for hotel chains	side by side	needed to achieve this effect	side by side
					if it works like for hotel chains	side by side	needed to achieve this effect	side by side



The most interesting result emerging from interviews is that hotel owners pay scarce attention to brand and its management. Only one hotel has carefully designed all—the three key components of a brand identity. Often, the slogan is missing and some hotels have not created a graphical or distinctive sign for their brand. Moreover, the brand name is never the result of a deliberate managerial decision process. Hotel naming comes from the personal experiences of the hotel owners (i.e. the name of a city visited in the past) or is inherited from the previous hotel management. Although some hotels have recently reviewed their names and slightly improved some components of the brand, the surveyed hotels are still tied to the concept of the brand as a trademark (a word or symbol which identifies the hotel and can be legally protected), and don't conceive the brand as a source of value for the company capable to create positive emotions in its target audience.

Activities that could be included in brand management are limited to web marketing, social network communication, advertising on traditional media and Internet. These managerial activities are not implemented with the aim to exploit hotel brand, but look more similar to traditional promotional activities. Moreover, only about 5% of hotel turnover is assigned to them. This corresponds to a limited financial budget, which does not allow hotels to implement an effective communication policy. Coherently, hotel owners usually take care of communication activities in person. Brand monitoring is also carried out directly by the owner or other family members and it consists in monitoring hotel ratings and customers' reviews on travel websites like Tripadvisor and online travel agencies like Booking.com. It is interesting to note that Tripadvisor is used to monitor the brand and it is not cited when discussing the activities performed to sustain the brand. Thus Tripadvisor is not conceived as a communication tool to interact with actual and potential customers.

Brand architecture was not addressed by the networks analyzed. The link between hotel brand (hotel name, more precisely), network brand and place brand is sometimes absent or is the result of a spontaneous process. We did not find any formal decision-making processes aimed to define brand architecture. This situation is probably due to the brand policy's weakness of the analyzed networks. The networks (consortia) have mainly been created to increase the visibility and attractiveness of the territory, promote hotels' touristic offer, reduce some operating costs and create additional services for tourists like common parking areas and city tours. There was no strategic aim to create a network brand capable of distinguishing the network's offer from other competitors.

According to hoteliers, the network brand has a slightly higher popularity compared to their individual hotel brand. With one exception, all interviewees declare that the network brand has greater or at least the same popularity of their organization at both the local, national and international level. Thus, joint activities of communication and promotion appear to be important in supporting the diffusion of the network's image. Nevertheless, results are limited to the local arena so far. In the rest of Italy and Europe, networks are not well known. This perception seems to be in line with hoteliers' opinion on the network brand's incapability to become famous, widespread and to replace individual hotel brands in the customers' mind. What occurs within hotel franchising chains is considered impossible by the majority of respondents, because it would require too many financial resources. Moreover, it is believed to work only for proprietary chains. Currently, hoteliers put hotel brand and network brand side by side in individual hotels' websites and advertising materials. Network brand is not a priority in hotel networking strategies. These research findings suggest that the associated hotels do not exploit the opportunity of creating a strong network brand. Communication strategies and hotel brands mainly leverage on the brand of the territory where they are located. The reasons for such behavior may be



attributed to hotels' desire to preserve their identify or hoteliers' incapability to understand the benefits that derive from creating a strong network brand.

### Conclusions

The empirical analysis suggests that brand represents a key success factor for small-sized hotels. However, there are several challenges at both the enterprise and network level. The hotel brand is not carefully designed nor actively managed. Similarly, the network's activities are currently not devoted to creating and sustaining a strong common brand. We suggest that hoteliers enhance their branding strategies specifically at the network level. Because SME's usually lack financial and human resources individually, a common investment in the network brand represents the most effective way to improve the recognizability and attractiveness of the networked small-sized hotels. Obviously, results are limited to the case studies analyzed here and the local area investigated. Future research steps will involve a greater number of hotels and possible comparisons with medium-sized and large hotels of the same tourism destination. A larger sample could help identify possible managerial differences due to hoteliers' personal mindset.

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# The impact of the interest rate volatility on the valuation of investment strategies

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### **Abstract**

One of the most challenging issues in management is the valuation of investment strategies. Indeed, there are several kinds of projects, for example those concerning brand extension, information technology and patent-protected R&D projects, that are strongly affected by uncertainty, see e.g. Santos et al. (2014), Kalhagen and Elnegaard (2002), Charalamopoulos et al. (2011), Manley and Niquidet (2010), Bernardo et al. (2012) and Baldi and Trigeorgis (2009).

When undertaking investments such as the aforementioned ones, which are characterized by a long-term horizon, a firm has also to face the risk due to the interest rates. In fact, interest rates do not remain constant over time but experience up-and-down movements and volatility that may become significant especially in the long run. In this work, we propose to value investment strategies subject to interest rate risk using a Real Option approach, see, e.g., Schulmerich (2010). In particular, we model interest rates according to a stochastic process of Vasicek type and we calibrate it to the Euribor/Eurirs indexes. Such a process is then integrated in a Black-Scholes framework, which allows us to obtain an explicit formula for valuing various kinds of projects (such as option to defer and option to expand). A numerical application is presented that illustrates the proposed real option approach from the practical point-of-view.

### Introduction

Real options represent a tool for valuing investment strategies that offer the managerial flexibility to postpone the decision to invest at a future time, see e.g. Santos et al. (2014), Kalhagen and Elnegaard (2002), Charalamopoulos et al. (2011), Manley and Niquidet (2010), Bernardo et al. (2012), and Baldi and Trigeorgis (2009).

As decisions made at a future time depend on market conditions that could be significantly different form the current ones, when valuing investments characterized by a long term horizon it is important to take into account the presence of stochastic interest rates. This topic has raised increasing interest especially in the last years, when, due to the financial crisis, interest rates have become very volatile. The issue of real option pricing under stochastic interest rates has also been considered in Schulmerich (2010), where a numerical approximation method based on a binomial tree is proposed.

In the present work we assume that interest rates evolve according to one of the most popular stochastic interest rate models in finance, namely the Vasicek model. This allows us to price real options by means of an exact analytical formula, so that the use of numerical approximation can be avoided.



Moreover, we calibrate the parameters of the Vasicek model to the Euribor/Eurirs indexes and we analyze the effect of the stochastic interest rates on a benchmark real option problem, see Kumar (1996). Our analysis reveals that the influence of the stochastic interest rates on the investment valuation strongly depends on the correlation between the interest rates themselves and the net present value of the cash inflows, on the time to maturity and on the volatility of the future cash inflows. In particular, the stochastic interest rates can substantially change the real option value when the correlation parameter, the time to maturity and the volatility of the future cash inflows are large.

The paper is organized as follows: In Section 2 the real option pricing models under both constant and Vasicek interest rates are described; in Section 3 an application problem is considered and the effect of the stochastic interest rates is analyzed; in Section 4 some conclusions are drawn and the main future directions of research are outlined.

Option pricing under constant and stochastic interest rates

Valuing investment strategies requires us to calculate the expected net present value of the future cash inflows  $^{S_T}$ , minus the investment cost  $^{C_T}$ . Therefore, if we take into account the possibility of not running the project if the economic conditions at maturity  $^T$  are not favorable, we have to compute:

$$E\left[e^{-\int_{t_0}^T r_i dt} \max\left(S_T - C_T, 0\right)\right]. \tag{1}$$

The above expected value can be calculated using the Black-Scholes model (Black and Scholes (1973)), according to which the future cash inflows resulting from the investment to be valued follow the geometric Brownian motion:

$$dS_{t} = \alpha S_{t} dt + \sigma S_{t} dZ_{1,t}, \qquad (2)$$

where  $^{\alpha}$  and  $^{\sigma}$  are the (constant) drift and the (constant) volatility of the future cash inflows, respectively, and  $^{Z_{1,t}}$  is a standard Wiener process. In addition, the spot interest rate, which we denote  $^{r_f}$ , is assumed to be constant. Moreover, let  $^{C_T}$  be the cost of the investment to be made at a future date  $^{T}$ , so that  $^{\tau} = ^{T} - t_0$  represents the so-called time to maturity,  $^{t_0}$  being the current time. Then, under these assumptions, the expected value (1) is given by the popular Black-Scholes formula:

$$V_{BS}(\tau, S) = S_{t_0} N(d_1) - C_T e^{-\tau r_f} N(d_2),$$
(3)



where

$$d_{1} = \frac{\ln\left(\frac{S_{t_{0}}}{C_{T}}\right) + \left(r_{f} + \frac{1}{2}\sigma^{2}\right)\tau}{\sigma\sqrt{\tau}},$$

$$d_{2} = d_{1} - \sigma\sqrt{\tau}.$$
(4)

Let us observe that in (3)  $e^{-r_{f}x}$  is equal to the price  $P_{BS}$  a bond that pays one Euro at the future time T, i.e. under the assumption of constant interest rates, we have

$$P_{BS} = e^{-r_f \tau} \tag{5}$$

Nevertheless, the dynamics of the interest rates in the last decade suggests that they may experience significant random variations and volatility. Therefore, in order to perform an accurate investment valuation in a world dominated by turbulent financial markets, it is essential to take into account the stochastic dynamics of interest rates, which is done in the present paper. In particular, we assume that the spot interest rate follows a mean-reverting process of Vasicek type:

$$dr_t = q(m - r_t)dt + vdZ_{2,t}, (6)$$

where  $^q$ ,  $^m$  and  $^v$  are the so-called speed of mean reversion, long-run mean and instantaneous volatility, respectively ( $^q$ ,  $^m$  and  $^v$  are assumed to be constant), and  $^{Z_{2,t}}$  is a standard Wiener process having a constant correlation  $^\rho$  with  $^{Z_{1,t}}$ .

Based on the geometric Brownian motion (2) and the Vasicek process (6), the expected value (1) can be determined using the closed-form solution as obtained in Rabinovitch (1989):

$$V_{RAB}\left(\tau, S_{t_0}, r_{t_0}\right) = S_{t_0} N(D_1) - C_T P_{RAB}\left(\tau, r_{t_0}\right) N(D_2), \tag{7}$$

where

$$D_{1} = \frac{\left(\ln\left(\frac{S_{t_{0}}}{C_{T}P_{RAB}\left(\mathbf{\tau}, r_{t_{0}}\right)}\right) + \frac{\vartheta}{2}\right)}{\sqrt{\vartheta}},$$

$$D_{2} = D_{1} - \sqrt{\vartheta},$$

$$\vartheta = \sigma^{2}\mathbf{\tau} + \left(\mathbf{\tau} - 2B + \frac{\left(1 - e^{-2q\mathbf{\tau}}\right)}{2q}\right) \left(\frac{v}{q}\right)^{2} - \frac{2\rho\sigma\left(\mathbf{\tau} - B\right)v}{q},$$
(8)



and  $P_{RAB}(\tau, r_{t_0})$  is the price at time  $t_0$  of a bond that pays one Euro at time T computed based on the stochastic process (6). The value of  $P_{RAB}(\tau, r_{t_0})$  has been obtained by Vasicek (1977):

$$P_{RAB}\left(\tau, r_{t_0}\right) = Ae^{-Br_{t_0}}$$
, (9) where

$$B = \frac{1 - e^{-q\tau}}{q},$$

$$A = e^{k(B-\tau) - \frac{v^2 B^2}{4q}},$$

$$k = m + \frac{v\lambda}{q} - \frac{v^2}{2q^2},$$

(10)

and  $^{\lambda}$  is the market price of risk. For the sake of simplicity, following a common approach, in the present work we set  $^{\lambda}$  =  $^{0}$ . It is worth noting that formula (7) differs from the Black-Scholes one as the term  $^{\mathfrak{Y}}$  takes into account not only the volatility of the future cash inflows, but also the volatility of the interest rate and its covariance with the future cash inflows (compare (4) and (8)).

Effect of the interest rate volatility: An empirical analysis

In this section we consider an application problem and we examine the differences between the case of constant interest rates (formula (3)) and the case of stochastic interest rates (formula (7)).

To perform a realistic analysis of the effect of the stochastic interest rates, the parameters of the Vasicek model are calibrated to market data. Specifically, we have considered the Euribor/Eurirs indexes in a time period ranging from one month to thirty years, and we have obtained:

$$r_{t_0} = 0.0013, \ q = 0.41, \ m = 0.0094, \ v = 0.0123.$$
 (8)

In order to compare the investment valuation obtained using the Black-Scholes formula with that obtained using the Rabinovitch formula, we impose that (5) and (9) yield the same bond value. By doing that the interest rate to be used in the Black-Scholes formula is

obtained as  $r_f = -\frac{\ln\left(P_{RAB}\left(\mathbf{\tau}\,,r_{t_0}\right)\right)}{\mathbf{\tau}}$ , where  $P_{RAB}\left(\mathbf{\tau}\,,r_{t_0}\right)$  is the bond price calculated according to (9).

The real option parameters are taken from Kumar (1996):

$$S_{t_0} = 20000, C_T = 15000, \tau = 5, \sigma = 0.4.$$
 (9)



Figure 1. Effect of the correlation coefficient on the real option value.

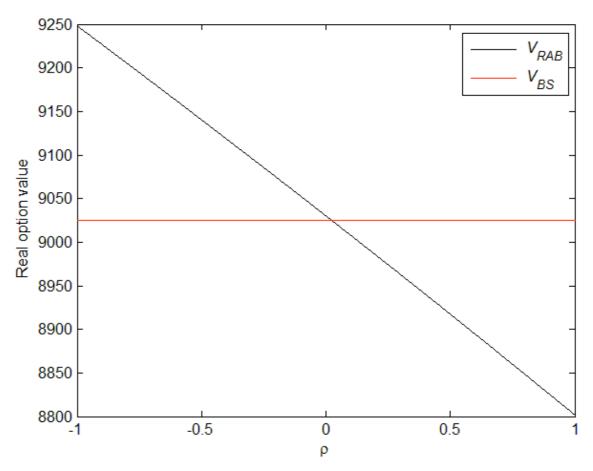


Figure 1 shows the real option price for different values of the correlation coefficient. We note that for values of  $^{\rho}$  that are small in magnitude (say, approximately,  $^{-0.1}<\rho<0.1$ ) there is not any significant difference between the Black-Scholes formula and the Rabinovitch formula. Instead, for values of  $^{\rho}$  that are negative and large in magnitude (say, approximately,  $^{\rho}<^{-0.75}$ ), the Black-Scholes formula significantly underprices the real option, i.e.  $^{V_{BS}}< V_{RAB}$ , whereas for values of  $^{\rho}$  that are positive and large in magnitude (say, approximately,  $^{\rho}<^{0.75}$ ) the Black-Scholes formula significantly overprices the real option, i.e.  $^{V_{BS}}>V_{RAB}$ .

This fact has the following economic explanation: if  $^{\rho}$  is negative and large in magnitude then to the higher values of  $^{S_T}$  (those that are bigger than  $^{C_T}$  and hence concur to determine the option value, see (1)) correspond lower interest rates and therefore the present value of the investment tends to be higher.

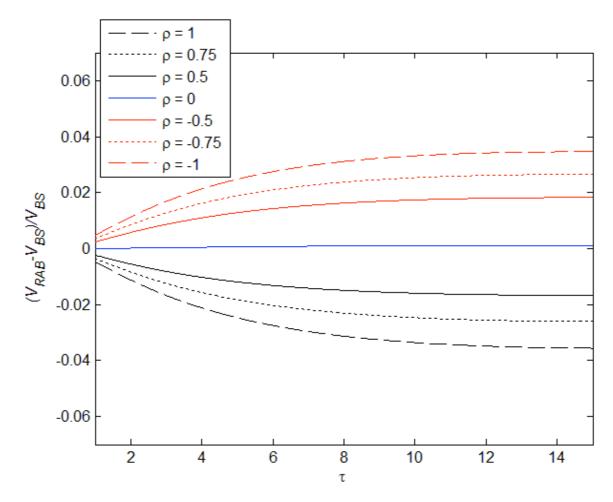
Let us now vary the time to maturity. The results obtained are reported in Figure 2. Again, as experienced before, for values of  $^{\rho}$  that are small in magnitude there is not any significant difference between the Black-Scholes formula and the Rabinovitch formula.

Instead, for values of  $^{\rho}$  that are negative and large in magnitude we have  $^{V_{BS}\,<\,V_{RAB}}$  and the relative difference increases as  $^{\tau}$  increases, whereas for values of  $^{\rho}$  that are positive and large in magnitude we have  $^{V_{BS}\,>\,V_{RAB}}$  and the relative difference decreases as  $^{\tau}$ 



increases. However, we can see that the differences between  $^{V_{BS}}$  and  $^{V_{RAB}}$  are appreciable only for times to maturity larger than approximately four years (we are assuming that the relative difference between  $^{V_{RAB}}$  and  $^{V_{BS}}$  is appreciable only if it is greater than 2% in magnitude).

Figure 2. Gap in the value of the real option between the Black-Scholes formula and the Rabinovitch formula as a function of the time to maturity.



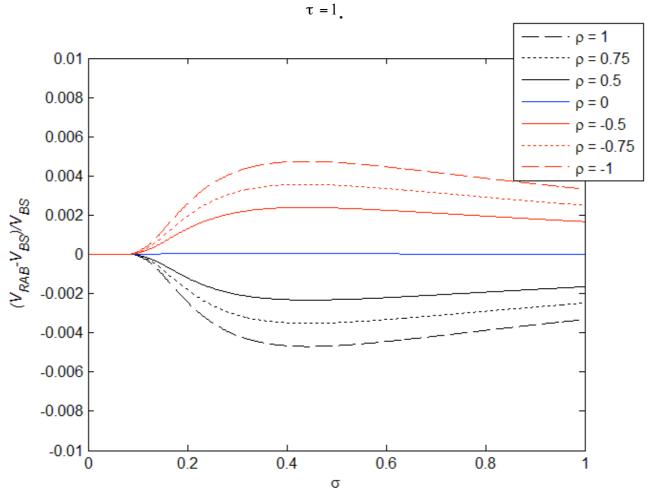
Let us conclude the sensitivity analysis by varying the volatility of the future cash inflows. This is an important aspect as  $^{\sigma}$  is a characteristic parameter of any project and it is not easy to determine.

As we can observe by comparison of Figure 3, Figure 4 and Figure 5, the qualitative shape of the curves obtained does not significantly depend on the time to maturity. On the contrary, the time to maturity can significantly affect the value of the relative difference between  $V_{BS}$  and  $V_{RAB}$ . In particular, if  $\tau=1$  and  $|\rho|=1$  the relative difference between  $V_{BS}$  and  $V_{RAB}$  has a maximum equal to approximately 0.005 and a minimum equal to approximately -0.005, whereas if  $\tau=15$  and  $|\rho|=1$  the relative difference between  $V_{BS}$  and  $V_{RAB}$  has a maximum equal to approximately 0.06 and a minimum equal to approximately -0.06.



However, the relative difference between  $^{V_{BS}}$  and  $^{V_{RAB}}$  are significant, i.e. greater than 2% in magnitude, only for values of  $^{\tau}$ ,  $^{\rho}$  and  $^{\sigma}$  which are large in magnitude, say  $^{\tau \geq 5}$ ,  $^{\rho \leq -0.75}$  or  $^{\rho \geq 0.75}$  and  $^{\sigma \geq 0.15}$ .

Figure 3. Gap in the value of the real option between the Black-Scholes formula and the Rabinovitch formula as a function of the volatility of the future cash inflows,



### Conclusions

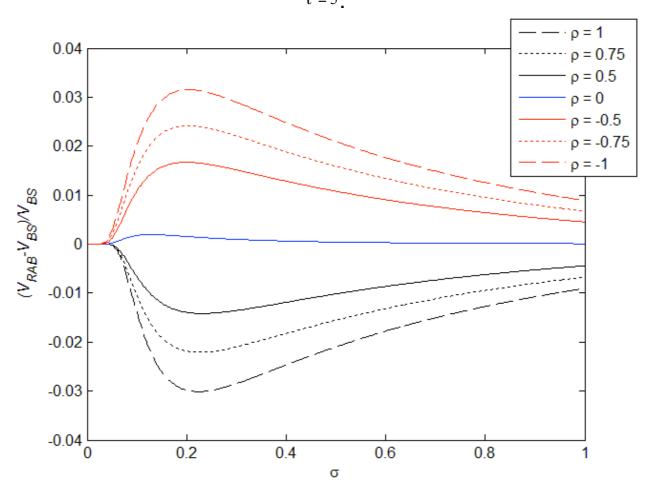
In this paper, we propose a real option approach which also takes into account the uncertainty due to the interest rates.

In particular, by employing the popular Vasicek model, which allows us to use the closed-form solution obtained by Rabinovitch (1989), we investigate the effect of the interest rate volatility on the valuation of investment strategies. This analysis is done by considering an application case related to the problem described in Kumar (1996).

The results obtained reveal that the stochastic interest rates can substantially affect the project valuation when the correlation between the stochastic interest rates themselves and the net present values of the cash inflows, the time to maturity and the volatility of the future cash inflows are large.



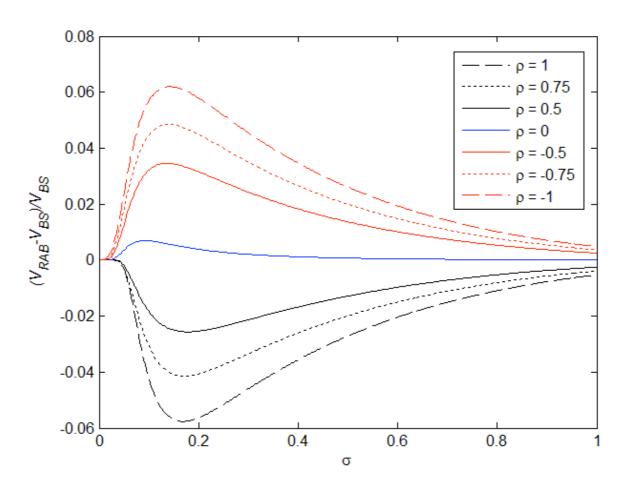
Figure 4. Gap in the value of the real option between the Black-Scholes formula and the Rabinovitch formula as a function of the volatility of the future cash inflows,  $\tau = 5$ 



These findings indicate that a deeper analysis of the effect of the interest rate volatility on the value of strategic investments is worth to be done. In particular, it could be interesting to investigate how stochastic interest rates impact the valuation of projects different from the one considered in this paper. This will be the subject of a future work.



Figure 5. Gap in the value of the real option between the Black-Scholes formula and the Rabinovitch formula as a function of the volatility of the future cash inflows,  $\tau=15$ 



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# Developing Territorial Identity: The Experience of Historical Italian Companies

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#### Abstract

This study aims to contribute to the development of the knowledge on intangibles management by analysing the territorial identity concept from a strategic competitiveness perspective. The purpose of this study is especially to clarify the territorial identity concept by exploring and highlighting its dimensions and determinants. This study considers the perspective of two historical Italian companies that have long been embedded in their territory. By integrating a literature analysis with well-documented case studies, this paper proposes a conceptual framework to capture and explain what companies can develop at the local level in order to improve territorial identity.

Key words: territorial identity; historical Italian companies; local embeddedness; relational proximity; sense of territorial belonging; territorial attractiveness.

### Introduction

In a globalised world where interconnection and standardisation in business prevail, competitive challenge for local areas needs to overcome the de-territorialisation processes (Roca and Oliveira-Roca, 2007). Although several studies (e.g., Zanon, 2011) highlight that infrastructure projects are at the basis of re-territorialisation processes, we argue the importance of developing strategic abilities of differentiation related to the knowledge-economy principles (Rullani, 2004). The differentiating element is not the material product but the intangible value that accompanies the goods' design, production and sale: it particularly resides in the meanings, services, experiences, and availability of collaboration to create relationships with stakeholders who are hidden behind the material product. As such, local areas can increase their competitive advantage and meet the challenges of globalisation by creating, developing or recreating their identity (Levi, 2003).

This study intends to stimulate the debate on territorial identity, an issue that has received less attention from a strategic-management perspective. Specific studies on territorial identity have been conducted in Italy (e.g., Baccarani and Golinelli, 2011; Rullani, 2013), with a focus on company-territory relationships.

Although many of the contributions to the literature on territorial identity examine the connections between identity, territory and competitiveness, there is no specific study that explores the territorial identity concept for the purpose of increasing territorial competitive advantage.



To discuss this issue it is first important to understand what is meant by the identity of a territory or a local area. This concept is complex because there are many terms and meanings applied to this concept from a number of disciplines. The terms 'territorial', 'local' and 'place' are most frequently used in the social sciences such as geography (e.g., Raagmaa, 2002; Magnaghi, 2003; Pollice, 2005; Luukkonen and Moilanen, 2012; Kaplan and Recoquillon, 2014), environmental psychology and neuroscience (e.g., Bonaiuto et al., 2002; Carrus et al., 2005; Gifford, 2007; Lewicka, 2008; Marcouyeux and Fleury-Bahi, 2011; Lengen and Kistemann, 2012), environmental policy and governance (e.g., Happaerts, 2012), viticulture and agri-food (e.g., Cesaretti and Scarpato, 2010; Rocchi and Gabbai, 2013; Begalli et al., 2014), place marketing (e.g., Erickson and Roberts, 1997; Baxter et al., 2013), and tourism management (e.g., Hallak et al., 2012). As place identity is closely related to the process by which, through interaction with different places, people describe a particular dimension of their personal identity such as belonging to a specific place (Hernández et al., 2007), in this work we essentially focus on territorial and local identity which are therefore used interchangeably.

The aim of this study therefore is to clarify the concept of territorial identity by exploring and highlighting its dimensions and determinants. Although we are aware that territorial identity is the result of the contribution provided by all stakeholders of a territory (Baccarani and Golinelli, 2011), in this study we consider exclusively the perspective of historical companies that have long been embedded in the territories of the case studies. We examine the manner in which two north-eastern Italian firms operating in the grappa industry contribute to creating the territorial identity of the Bassano del Grappa territory (Veneto region). By integrating a literature analysis with well-documented case studies, we propose a conceptual framework to capture and explain the territorial identity concept to serve as a starting point for future studies.

This study presents a literature review on territorial identity, followed by a description of the methodological approach that was used to research. After describing and discussing the two historical firms' experience of developing the identity of the territory in which they operate, theoretical and managerial implications are discussed. This study closes by presenting its limitations and proposals for future research.

## Territorial identity concept in literature

This literature review is executed through an analysis of the concept of territorial identity in the interaction between place and identity, particularly as theorised by scholars of geography, and by highlighting the main characteristics of territorial identity.

Territorial identity is an elusive concept that can be defined as the qualities that make a place capable of being specified or singled out, as well as unique and separate from other places (Erickson and Roberts, 1997). Territorial identity is a concept rich in meanings such as the 'uniqueness', 'singularity', 'specificity', and 'authenticity' of local/regional material and immaterial assets, systems and networks (Roca and Oliveira, 2007, p 435). It can also be interpreted as an 'identitarian relationship connecting a specific community to its lived space' (Caldo, 1996, p 285). In this sense, territorial identity is not exclusively related to the mere spatial dimension of identity, but is used to express the relationships of belonging that create 'territory'. These relationships of belonging are engendered by shared experiences, heritage, interests or expectations, within a given geographical space (Scriven and Roberts, 2001). Territory is a 'lived space' (Frémont, 1978; Wójcik, 2013) because it incorporates both the physical dimension of the geographical space and the



social dimension of the relational space. Therefore, territory is an 'human space', it is built over time as a product of a process of cultural sedimentation; it is a process that focuses in the identity relationship that develops between a community and the space in which it is located. That is, territorial identity is a self-referential process established by a community that takes possession of a culturally default spatial context (Pollice, 2005, pp 75-76).

In addition, territorial identity is not an abstract concept but a fundamental component of any place (Pollice, 2005). It is closely related to the concept of 'genius loci', which is the perceptual manifestation of territorial identity as the unique set of physical characteristics, cultural messages and emotions that makes the place what it is, that makes it different and unique to any other place (Artusi, 1996, p 3).

The identity of a territory can be also defined in relation to its flows and networks with other places, both near and far, generating a condition of interdependence and modifying the original and historical distinctive features of the territory. While in the past, the inhabitants of a place felt a sense of belonging to a place through its history and by cumulating mostly local experiences, emotions, and relationships, today, in addition to these distinctive elements that come from the past, companies, people and communities have learnt to hybridise the experience of the places with the experience of global networks (Rullani, 2013).

Fundamentally, territorial identity presents four characteristics.

First, identity is not a static (Lim, 2010), but a dynamic concept (Pollice, 2005). It is the result of a continuous interaction between a specific community and its relational space. It shifts as we position and reposition ourselves within multiple context of place. Multiple histories and diverse narratives coexist dynamically and are dialogically engaged to dwell together (Lim, 2010, pp 906-908). As territory as a space of belonging is an affective, social, and symbolic product, if local actors trigger mechanisms of identification and assessment of strategically relevant elements of local development, they can contribute to the creation of a retrospective and perspective local identity (Dai Prà, 2001; Oliveira et al., 2010).

Second, territorial identity is a process because there is no single identity of a territory but a succession of identities (Raffestin, 2003). It can be understood as both the cause ('matrix') and effect ('target') of the territorialisation processes (Turco, 2003). As cause, it means that local identity supports the development process by means of a set of conditions providing opportunity and obstacles to actions. As effect, it can increase the specificities of a place and contribute to the consolidation of the sense of belonging to the local community. Territorial identity is related to local development because it orients both collective actions and territorialisation processes. In this sense, a strong territorial identity stimulates the processes of endogenous and self-centred development, and is able to predetermine directly or indirectly objectives and strategies of local development. It can also contribute to the development of innovation processes at the local level. Territorial innovation is successful if it is the result of choices shared by local community members and stakeholders operating in the territory. Such sharing is achievable if a strong identity exists in a territory. As such, self-referential behaviours are avoided, and social and territorial development is stimulated (Pollice, 2005).



Third, territorial identity is not only a set of exterior manifestations, but also of interior values such as a sense of belonging (Oliveira et al., 2010), social identification and cohesion, as well as a shared representation of a collective self.

Fourth, territorial identity is well constructed through multidimensional (including social, cultural, political, physical, biological, historical and psychological dimensions) interactions in a place, that is a multifaced entity (Lim, 2010, p 901).

By means of territorial identity, any territory can become an actor of its own development. The place is no longer a simple physical space, but becomes an active entrepreneurial subject (Schillaci and Gatti, 2011) that is the source of not only material, but also immaterial resources such as entrepreneurial propensity, cultural level, collaborative spirit, behavioural ethics, and aesthetic sensitivity.

### Method

This study is based on an inductive approach. Through this approach, proposing specific cases allows one to attempt to draw more general considerations.

The research strategy consisted of case studies. Italy has many areas that have distinctive characteristics of territorial identity. Through theoretical sampling (Patton, 2002), we have chosen Bassano del Grappa as the area of investigation. Bassano del Grappa is a little town distinguishing by the production of the grappa. It is located in the Veneto region in which 29 firms produce grappa of which 13 are historic companies. In Bassano del Grappa only two historic companies operate in this industry and contribute to the development of its territorial identity. We therefore examined these two companies: Ditta Bortolo Nardini Spa and Poli Distillerie Srl. Effort was made to integrate the (poor) existing literature with the uniqueness of the businesses' experiences to begin a theory-building activity (Eisenhardt, 1989; Eisenhardt and Graebner, 2007). It is believed that such unique businesses experiences offer significant insight into understanding the concept of territorial identity.

To collect data, we consulted secondary sources and conducted in-depth interviews with each of the businesses, as well as consulted their websites. The interview with Ditta Bortolo Nardini Spa was conducted in November 2013 with the external-relations manager, Marta Lazzarin, and for Poli Distillerie Srl, the entrepreneur Jacopo Poli and the external-relations manager, Lorna Geremia, were interviewed between May and June 2014. In both cases, the interviews were conducted in a semi-structured manner. The following two principal questions were submitted to the interviewees: 1) In your opinion, what are the fundamental elements that characterise the territorial identity of Bassano del Grappa? 2) What initiatives has your company activated locally to build and enhance the identity of the territory in which it operates? The duration of the interviews was 40 minutes each and the interviews were audio-recorded and later transcribed.

The results of the case studies are the basis for identifying the dimensions and determinants of territorial identity in this study.



### Contribution of historical companies to the development of territorial identity

Before examining the case studies and the contribution that each company makes to the enhancement of territorial identity, it is necessary to clarify some aspects of the identity of Bassano del Grappa that emerged from the voices of the case-study companies.

Bassano del Grappa is a border town whose identity is closely related to the Brenta canal that runs through it. For centuries, the Brenta has been a crucial passage for the conquest of the plain cities by various invaders of the region. However, it has also represented an important means of connection with Europe. Bassano del Grappa has long been a land of conquest and the people of the town are aware of their limited forces, and therefore, have always desired a peaceful relationship of subordination with the different rulers so that there was an atmosphere that could be beneficial to the thriving traditional peasantry and artisan culture. Over the last four centuries, it has developed a variety of activities related to agriculture such as viticulture and grazing, as well as industry-related activities such as printing, woodworking, ceramics, wool, and the distillation of grappa.

"The old bridge, the castle, the squares, the beautiful palaces, the walls, the churches, make it a closed and also open citadel at the same time. People are industrious, but they don't forget the pleasure of life, they are prone to diplomatic mediation, but without byzantine malice, their minds are geared to international trade, but with their feet firmly on the ground" (interview with Jacopo Poli).

Bassano del Grappa is a vibrant town thanks to the many cultural events that animate it during the year, and its atmosphere that creates a sense of cordiality that is much appreciated by many visitors. Highlighting these traits of Bassano del Grappa's identity, which are closely related to those of the general area of Pedemontana Veneta in which Bassano del Grappa is located, is intended to emphasise the features that are most relevant to the research objective for each case study.

### Ditta Bortolo Nardini Spa

The company began its activity in 1779 when Bortolo Nardini opened his first distillery in Bassano del Grappa. This company is physically present in this area from over 230 years. It has been able to combine respect for tradition with the ability to look forward. "Innovating in the name of tradition" is the mission of the family Nardini who still today considers its ancient knowledge as a significant source of competitive advantage for the future.

Particularly interesting is the sense of responsibility towards its territory which Nardini company developed, and intends to continue to develop, day by day. It aims to preserve and enhance dialogue and discussion with local actors in order to build more depth relationships with stakeholders of the area.

In this direction, most important are the specific values of historical company that Nardini has developed in time by participating as member of two cultural associations<sup>1</sup>: the first is Les Henokiens, an international association of family and bicentenary companies; the second is Historic Place of Italy, an association that promotes the oldest and most prestigious establishments in Italian history. In addition, Nardini has developed some

<sup>&</sup>lt;sup>1</sup> For further details, see http://www.henokiens.com or http://www.localistorici.it [access of: 31.01.2015]



typical value of Bassano del grappa area such as tenacity and passion which have supported the company during the periods of difficulty.

This company pursues the sense of territorial belonging and attachment also through other actions related to the four following broad areas: 1) communication; 2) architecture; 3) art; and 4) promotion of social and cultural events.

The aspect of the company's communication is exemplified by the logo of Ditta Bortolo Nardini Spa being the Ponte Vecchio of Bassano del Grappa, the place where is located also the company's grapperia. The Ponte Vecchio is the old bridge designed by the architect Palladio that is the symbol par excellence of the town; it is synonymous with the culture, history and architecture of the area and is an important source of tourism attraction. This company decision is an expression of its strong sense of territorial belonging and of its desire to be identified with the specific and unique location that is the town of Bassano del Grappa.

Ditta Bortolo Nardini Spa's action within this territory is also important in architectural terms because of the design and realisation of the Bolle building. This building represents a significant contribution of the Nardini family to Bassano del Grappa's contemporary architecture. This building was created to host company and territorial events and also to extend the awareness of the world of distillates and liqueurs: the interior of the building hosts a research laboratory and a quality-control centre, as well as an auditorium in which to receive customers and an ever-growing number of visitors. In addition to the desire to create a more functional research space, the Nardini family invested in this architectural structure to leave a sign of the value that can be left to future generations (Bonfanti et al., 2013). Ditta Bortolo Nardini Spa has transmitted a powerful message of the company's attention for the future and its openness to the territorial needs and to dialogue with other local actors for the evolution of the Bassano del Grappa's territorial identity.

The Nardini family have also demonstrated special attention to and passion for art, creating Garage Nardini to unite the Nardini family's passion for contemporary art and the town of Bassano del Grappa. The Garage Nardini is a space in Bassano del Grappa created to present the creativity of artists from all over the world. The Nardini family also promotes culture and art by sponsoring and hosting dance festivals. Moreover, Ditta Bortolo Nardini Spa promotes many events, as well as national and international conferences, including, for example, Welcome to the Year 2050. The promotion of these events reflects the company's sense of responsibility towards the community in which it operates and it is a representation of the company's particular attention to the social dimension of its activities.

The role of Ditta Bortolo Nardini Spa in promoting socio-cultural events can be emphasised in its commitment in creating the tradition of the meeting place by being an important destination dedicated not only to visitors but also, and primarily, to the people of Bassano del Grappa.

Poli Distillerie Srl

"Only roots that go deep into the land can give such an ethereal fruit as Grappa"2. These words effectively explain the sense of attachment, deep love and knowledge of territory of

<sup>&</sup>lt;sup>2</sup> Further details are available at http://www.poligrappa.com [access of: 31.01.2015]



Poli Distillerie. Its activity continues for many generations. Over a period of five hundred years, the Poli family has moved three times, covering the distance of only 18 km, from the native Gomarolo to Schiavon, a village of the Pedemontana Veneta, near Bassano del Grappa, where the family now lives and is current headquarters of the company. This is an important aspect that underlines the continuous physical presence of the family and, then, of the company in a specific territory.

The Poli Distillerie Srl possesses an artisan character and its mission is to change the image of grappa around the world, to create an image of a refined product that is a symbol of Italy such as cognac is for France and whiskey is for Scotland.

To support its mission, the company strongly emphasizes its local roots and also the values, the natural and architectural beauty, essentially the uniqueness of the territory in which it is established.

Moreover, the special attention and sensitivity of the company in the enhancement of its heritage, closely linked to the local tradition, has oriented itself in the choice of being a member of two associations<sup>3</sup>: the Unione Imprese Storiche Italiane, which includes national ultra-centenary companies with the aim of valorising Italian entrepreneurial heritage; and the Museimpresa, which brings together Italian companies that have set up their own industrial museum or archive.

The history, the mission and the sensitivity of this company highlights a close connection between the Poli Distillerie and its territory, not only with regard to its production, but also to the existence of a territorial rooting that reflects a pride of belonging to that territory.

Poli Distillerie's corporate action to support territorial identity is mainly developed in two directions: 1) 'formative' communication; and 2) the reappropriation of knowledge, memory and local culture, as well as the diffusion of the entrepreneurial culture.

The geographical aspects, the characteristics of identity, and the 'soul' of the 'Poli territory' are disseminated on a communicative level through means such as the company's website. We provide a summary of the contents extracted from Poli Distillerie Srl's online communication, which not only informs on issues related to the business and the local peculiarities, but also promotes cultural growth around the "Poli Territory": "This is a land of culture, one that welcomes lovers of beauty to admire the elegant Veneto Villas designed by Palladio, the paintings of Jacopo da Bassano and Giorgione or the sculptures of Canova; a land with a long memory, accompanying those who have the time along the paths of the Great War that left its mark on Mount Grappa and the Pasubio; a land that never stays idle, and likes to sing the praises of those craft industries that have allowed the Veneto economy to flourish; a land with good taste, ready and willing to pull up a chair for those with an appetite for wines and dishes that have earned their rightful place in Italy's food and wine culture"4.

From this description of the territory emerges the initiative promoted by Poli Distillerie Srl named 'Welcome to our Territory', which refers to five actions to be executed to fully experience the area. Poli Distillerie Srl supports this project by offering a bottle of grappa to any person who provides testimony of having completed the entire path. As such, the

<sup>&</sup>lt;sup>3</sup> See http://www.unioneimpresestoriche.com or http://www.museimpresa.com [access of: 31.01.2015]

<sup>&</sup>lt;sup>4</sup> For further details, see http://www.poligrappa.com [access of: 31.01.2015]



visitor will come to appreciate the spirit of the territory to which the company belongs. The five actions are the following<sup>5</sup>: "1) to see at least one of the beautiful Palladian Villas, true jewels of the Vicenza province; 2) to cross the Old Bassano del Grappa Bridge, hand in hand with one you love, exchanging a little kiss of love; 3) to taste a glass of Torcolato wine accompanied by Asiago Stravecchio Cheese; 4) to play chess with living pieces on the large chessboard of Marostica's Cheese Square; and 5) to climb with a bike up to Monte Grappa or, if you are lazy, go by car, it's worth it". Each activity expresses the tradition and the culture at the heart of the Veneto region, that is, the Pedemontana Veneta area that includes Bassano del Grappa. By promoting such activities, the company underlines how its undertakings cannot be separated from its territory, as well as its particular commitment to social and cultural level.

The second aspect in which the company demonstrates its great investment in its attachment to the territory and its passion for its product is the reappropriation of knowledge, memory and local culture, and the diffusion of entrepreneurial culture. The company has established the Poli Grappa Museum in two locations. One is in Bassano del Grappa, and deepens the research on the history of distillation and the diffusion and exploitation of the Italian grappa. The other is in Schiavon, and presents the evolution of the Poli family, a typical family of Vicenza, representing entrepreneurship in the north-east of Italy. These museums also organise various cultural and educational events for the community to witness the traditions and social dimension of local distillation. This project allows to emphasize the company's willingness to dialogue and collaborate with other social actors of the territory. In addition, Poli Distillerie is always open to visitors who want to learn about and see the production process. Jacopo Poli also conducted research on the history of distillation (Poli, 2014), which provides an important example of how it is possible to exploit a specific tradition of the Pedemontana Veneta area and especially Bassano del Grappa territory.

Dimensions and determinants of territorial identity: a conceptual framework

Both companies considered in this paper highlight the importance to operate in the same area from a number of years, develop relationships with different stakeholders, act by following values closely related to territory such as sense of belonging, attachment, sharing and love, and contribute to create attractive opportunities for the territory in order to develop territorial identity.

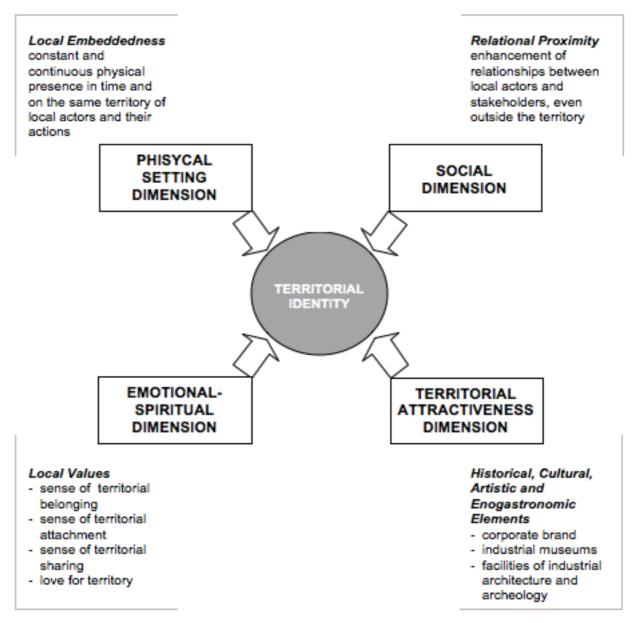
By integrating these information offered by the companies considered in this study with literature analysis, we propose a conceptual framework to capture and explain the concept of territorial identity. It especially highlights what companies can develop at the local level in order to improve territorial identity.

They can contribute to creating territorial identity by means of four dimensions: 1) physical dimension; 2) social dimension; 3) emotional-spiritual dimension; and 4) local-attractiveness dimension. These dimensions are closely connected along a continuum that defines the territorial identity concept (see Figure 1).

<sup>&</sup>lt;sup>5</sup> For further details, see http://www.poligrappa.com [access of: 31.01.2015]



Figure 1: Developing territorial identity: a conceptual framework



(Source: our elaboration)

The physical setting dimension is an expression of anchored elements of the natural heritage, population and human-made economic in a geographical area that can be considered unique and special in relation to them. The principal determinant explaining this dimension is 'local embeddedness', which refers to the constant and continuous physical presence in time and on the same territory of local actors and the production, distribution and/or consumption of tangible goods and services in that territory (Roca and Oliveira-Roca, 2007).

The social dimension includes the relational proximity. It regards the enhancement of relationships between local actors and stakeholders, even outside the territory. This means creating opportunities for cultural enrichment, as well as for promotion and enhancement of local resources. Such relationships contribute to developing entrepreneurial projects of territorial growth from the socio-cultural perspective.



The emotional-spiritual dimension, as the name suggests, refers to the emotional and spiritual elements of a territory such as its fundamentally local values that stakeholders develop in time by means of their place experience, not only recognizing the place but also knowing how to use it (Lim, 2010). This involves a sense of territorial belonging, attachment and sharing, which can be synthesised in a 'love for the territory' in which one lives and works. Its strengthening could, for example, promote environmental and socio-cultural consciousness, encourage protection of the natural and cultural heritage, improve social relations and community spirit, facilitate efficiency and effectiveness of local institutions, reinforce self-respect and the feeling of security and satisfaction (Oliveira et al., 2010, p 813).

Finally, the territorial attractiveness dimension is the result of historical, cultural, artistic and enogastronomic elements that define the "charisma" of a place. Such elements include, for example, bridges, castles, squares, buildings, walls, churches and culinary specialties. Companies can contribute to developing this dimension by creating, promoting or supporting socialising opportunities in the territory that accommodate a number of art forms (e.g., literature, cinema, music and dance). Several other possible entrepreneurial actions aimed at developing territorial identity are creating a corporate brand, industrial museums, and facilities of industrial architecture and archaeology.

This territorial identity concept may bring to mind some characteristics of the Marshall's districts but Bassano del Grappa territory is not a district. It doesn't have all the traits of a Marshallian district such as territorial aggregations of small and medium-sized firms, presence of widespread entrepreneurship, endogenous process of innovation, monocultural configuration of local area (e.g., Lorenzoni, 1979; Varaldo, 1979; Panati, 1980), and industrial atmosphere (see Marshall, 1980). Essentially companies localised in the same geographic area act in order to contribute at creating and developing territorial identity because they live in and love that territory. If they choose not to invest more also in one of above mentioned dimensions, they may warp territorial identity created.

Conclusions, limitations and directions for further research

This study highlights how territorial identity is a concept that has received very little attention from researchers in the business management field. The analysis made in this study can contribute to extending knowledge of territorial identity in three manners: 1) it clarifies the concept of territorial identity; 2) it presents two Italian business cases that capture useful actions for creating and developing territorial identity; and 3) it proposes a conceptual framework that offers a foundation for future research by outlining the dimensions and determinants of territorial identity.

This analysis is an attempt to examine the territorial identity concept, and offers a number of considerations that cannot be generalised: the subjectivity of the choice of the sampling and the selection of the territory (and companies) mean further study is necessary. In addition, this work considers exclusively the companies' perspective, but territorial identity is the result of the thoughts and actions of all local stakeholders. As such, future research should extend the analysis by considering the perspective of the wider group of stakeholders.

Therefore, this study, which is exploratory in nature, is subject to future developments and applications. Future lines of research could gather around two major themes. One



concerns the development and subsequent testing of the conceptual framework proposed in this study. The other is to explore a number of new research perspectives.

The model presented lends itself to being implemented with other cases studies in other territories to check the dimensions and determinants proposed in this study, and find possible variables that would be useful for in-depth analysis. This framework can also be empirically tested in the future. The analysis of the literature and the conceptual framework are preparations for submitting items to group in subdimensions that can identify territorial identity.

Another promising area for further research is the analysis of the actors that contribute to creating and developing territorial identity. By means of a social-network analysis (e.g., Anzera, 1999; Knoke and Song, 2008; Scott and Carrington, 2011), it is possible conduct an ego-network-centered study to identify key stakeholders that are strategically fundamental for creating and developing local identity. It would also be possible to identify other actors such as those that are isolated (i.e., their participation in the network is irrelevant); pendant (i.e., the actor is 'hooked to the network' by a single relationship); bridge (i.e., the actor connects two subgroups); and gatekeeper (i.e., the actor creates relationships between a subset and the outside of group within the network). In addition, it is useful to calculate the indicators of (local and global) centrality to assess the territory's actors that have further connections with other stakeholders, and network density to understand the general level of relationships.

In addition, as competition exists not only between companies but also between local areas (Maizza, 2013), it would be interesting to examine how territories, and their local actors, can develop their identity to compete more effectively in business.

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# After-sales service as a driver for word-of-mouth and customer satisfaction: insights from the automotive industry

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### **Abstract**

This study aims to study the effect of the after-sales service experience and its quality on overall customer satisfaction and word-of-mouth (WOM) within the automotive industry. Based on the additional marketing mix elements required for service marketing (people, process and physical evidence, respectively), we investigated the effects of after-sales service experience quality on both satisfaction and WOM. Data were collected through a survey of 210 customers in the automotive industry. Respondents were asked to evaluate several items related to their after-sales service experience for car maintenance services provided by authorised dealers. Data were analysed using a linear regression model and R software.

The results showed evidence of a relationship between satisfaction and the desire to recommend, and supported the fact that after-sales service satisfaction represents an antecedent of consumer satisfaction and WOM. However, not all elements of the after-sales experience had a significant impact on the two output dimensions (satisfaction and WOM). This might lead managers to consider which of the main elements of the after-sales service consumers consider more when evaluating their satisfaction with the dealer and what elements they are more willing to talk to other people about. This study contributes to enriching the existing knowledge regarding after-sales experiences and the impact of this phase of the consumer's decision process on their overall satisfaction and the related WOM.

Key words: after-sales, service quality, customer satisfaction, WOM, automotive industry

### Introduction

One general trend in the automotive industry is that products become more of an enabler for beginning relationships with customers. Car sales become a reason to establish relationships, and various services help companies maintain them in order to ensure additional income. However, the prolonged economic downturn is driving a greater number of original equipment manufacturers (OEMs) to place renewed attention on the aftermarket as consumers put off new purchases and hold on to their cars longer (Accenture 2010). New car sales growth is slowing, but a more promising and less obvious opportunity is the after-sales market, including that for spare parts, service, used car sales and financing, which serves as an integral component of brand-building and sales management. New passenger car registrations have continued on the generally downward trend that first appeared in 2007; since that year they have fallen from 15.6 million to 12.0 million, a decline of 23%. This trend reflects the close relationship between vehicle sales and the economic climate. Accordingly, it is most pronounced in southern Europe, where vehicle sales have decreased by 60% in Spain and 45% in Italy since 2007 (ICCT 2013). The current business environment is changing dramatically and forcing automotive



companies to find sustainable strategies to preserve and increase their market share in a challenging after-sales market (Coyle et al. 2011, p. 6).

To enable dealer excellence in servicing customer needs, service operations require complex capabilities in terms of tools, processes and systems, with no or limited revenue opportunity for OEMs. Despite the significant financial and customer satisfaction impacts of the after-sales business, OEMs have historically given little attention to after-sales business and done little to improve the performance of their after-sales functions (Accenture 2010). For a car manufacturer in the after-sales business, the customer 'dealer' is often bound by a contract, but the competition is growing fiercely, and cheaper and faster after-market providers will become a real threat in the future (Thomas & Esper 2010). Many automotive companies constantly expand their service business and scope: traditional after-sales maintenance and repair services are supplemented with finance and insurance services and re-formulated into service bundles (Godlevskaja, Iwaarden & van der Wiele 2011). Additionally the importance of the after-sales market has been stated by Hecker et al. (2010, p. 10), who believe that it will be the most enduring and important business for car manufacturers in the future. In summary, while profit margins for new car purchases are low, after-sales service allows potentially high returns when dealers and OEMs provide tailored offers and customised services to customers. In an automotive context, after-sales service becomes a vital source of brand-building, as it represents continuous contact between car producers and customers through their authorised dealer networks during the product life cycle.

This paper contributes to the literature by investigating the importance of after-sales service quality in achieving high levels of customer satisfaction and positive WOM. This study is also important to practitioners, since measurable awareness of customer perception of after-sales service based on intangible elements can lead to changes in firm profitability and customer loyalty. This can be achieved through the determination of what has been evaluated as right or wrong from the customer's perspective, and what should be modified. Moreover, after-sales services are taking a substantive position in overall satisfaction with the augmented product offered.

The paper opens with a selection of literature on after-sales service and the impact of service elements on customer satisfaction and WOM. Next, the methodology will be described and the main findings highlighted. Finally, the conclusions, limitations and implications of the study will be discussed.

## Literature Review

# After-sales experience in service marketing

In the field of product services, the outstanding classification is based on whether the service (and the transaction) is offered before, during or after the sale (Lalonde & Zinszer 1976). After-sales service has been widely used to describe services that are provided to the customer after products have been sold or delivered. Support entails all activities undertaken by service support providers to ensure that consumers continue to enjoy trouble-free use of the product over its life cycle. An after-sales support strategy associated with a product may include elements such as warranty provision, extended service contract provision, availability of repair services, maintenance, spare parts (management), loan availability, toll-free phone support and a returns policy. Some scholars have shown that the revenue generated from the provision of after-sales service



and spare parts sales exceeds three times the value of the initial purchase (Saccani et al. 2007).

Levitt (1983) sees the initial sale of a product only as the start of a seller-buyer relationship; a point at which the after-sales function of a company becomes crucial. Various terms are used in the literature for what here is labelled 'after-sales service'. For example, Goffin and New (2001) list the following: customer support, product support, technical support and services. Several other definitions of after-sales service can be found in the literature (La Londe et al. 1977; Sterling & Lambert 1989; Loomba 1996; Johansson & Olhager 2004; Kurata & Nam 2010). Building on these definitions, and keeping a general perspective, we can state that after-sales services for manufactured goods encompass the set of activities taking place after the purchase of the product, devoted to supporting customers in the usage, maintenance and/or disposal of the product. Earl and Khan (1994) classify after-sales service as a business network process. since it has a direct impact on business performance and on the creation of competitive advantage. They might provide complementary services (e.g., field assistance and customer care) as well as competing services (e.g., field assistance provided by sales points and repair centres or by authorised and unofficial assistance networks). Moreover, the diffusion of the Internet and other technologies 'expands the number and variety of customer touch points and service delivery channels' (Hill et al. 2002), and, when looking at the supply chain structure, makes the picture even more complex.

Several scholars suggest that well-executed service recoveries increase perceptions of customer satisfaction, build relationships and prevent customer defections (Keaveney 1995), whereas poorly executed recoveries can decrease a customer's loyalty to a firm (Mattila 2004). Well-handled service recovery considerably increases the association between customer satisfaction and both trust and commitment to the service provider (Tax, Brown & Chandrashekaran 1998). The level of after-sales service is not only critical for a customer's decision process, but is also a source of significant revenue for the dealer; furthermore, after-sales service offers differentiation and positioning in the competitive context (Russo & Cardinali 2012).

Manufacturers may make provisions for after-sales service support either by offering it directly at the plant, through their own network of service centres, through channel intermediaries, through authorised independent third-party service centres or by some combination of these organisations (Loomba 1996; Russo, Confente & Omar 2013). Product-based differentiation in the automotive industry is increasingly difficult and firms cannot compete on products alone. Many automotive companies have realised enormous growth opportunities in the service area. One additional trend in the automotive industry is changing customer requirements for services, growing service complexity and the need to customise services (Godlevskaja, Iwaarden & Wiele 2011; Gaiardelli, Songini & Saccani 2014). Thus, it is reasonable to assume that the significant interactions during the aftersales process provide a basis for customer satisfaction. Increasingly, after-sales customer service is becoming the order-winning criterion for most firms, and is now being recognised as an important research priority.

The impact of service quality on customer satisfaction and WOM

Customer satisfaction is defined as the 'customer fulfilment response', which refers to customers' post-consumption evaluation of whether the service provided was at a satisfying level of consumption-related fulfilment, or either under- or over-fulfilment (Oliver



1997). Operationally, satisfaction is similar to attitude, as it represents the sum of several attribute satisfaction judgements (Maxham III 2001). From this perspective, satisfaction is a transaction-specific measure (Bitner 1990; Parasuraman et al. 1988). Others view service-related satisfaction somewhat differently. Cronin and Taylor (1992) define satisfaction as a cumulative evaluation and an outgrowth of service quality. In their view, satisfaction represents a global judgement rather than a transaction-specific measure. Satisfaction is also thought to have an affective element that is experiential and probably is most appropriately assessed after consumption (Ostrom & Iacobucci 1995).

Our perspective supports the large volume of research confirming the fact that service quality is an antecedent of consumer satisfaction (Cronin & Taylor 1992; Dabholkar et al. 2000). A further step in our study is to understand the impact of satisfaction on WOM. WOM is especially important for service providers whose offerings are largely intangible and experience- or credence-based. For these services customers rely heavily on the advice and suggestions from others who have experienced the service (Kinard & Capella 2006; Confente 2014). There is evidence from the literature supporting the relationship between satisfaction and the desire to recommend (Parasuraman et al. 1988; File et al. 1994; Shemwell 1998; Söderlund 1998; Sivadas & Baker-Prewitt 2000, Hennig-Thurau et al. 2002; Chaniotakis & Lymperopoulos 2009). In fact, potential consequences on customer behaviour from a very high or low level of satisfaction might be:

- complaining behaviour
- positive/negative WOM
- repeat purchasing and loyalty (Szymanski & Henard 2001).

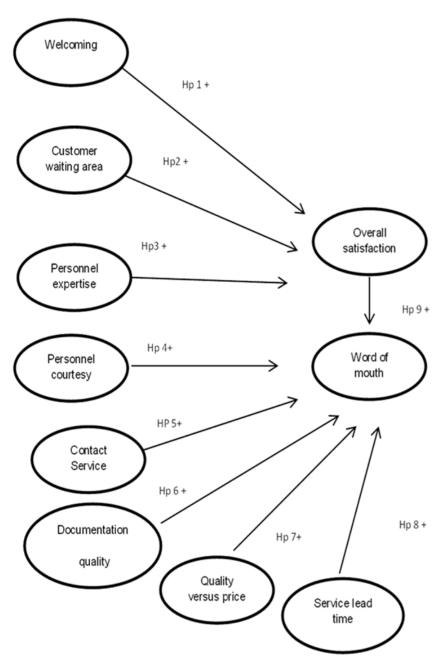
More specifically, positive comments from satisfied customers can increase purchases, while negative comments from unsatisfied customers can decrease purchases (Ennew et al. 2000). Companies need to enhance customer satisfaction in order to lead clients to repeat their purchases and to positively recommend these products and services to other potential customers. By doing so, these behaviours might benefit in terms of both retention and acquisition (Gremler & Brown 1996). After-sales service offers differentiation potentials that a producer can use to strengthen their brand equity (Cavalieri et al. 2007).

While there are several studies investigating the effect of service quality on satisfaction and the impact of satisfaction on WOM, there is limited research related to the effect that service quality dimensions have on satisfaction and WOM (Arasli 2005; Macintosh 2007; Chaniotakis & Lymperopoulos 2009; Ferguson et al. 2010). Even fewer articles refer to the direct relationship between service quality and behavioural intentions, such as WOM (Zeithmal et al. 1996; Olorunniwo et al. 2006, Ng et al. 2011). In addition, these previous studies have considered whole service provision, such as banking services, travel agency experiences or healthcare treatments, not the after-sales experience, an integrated phase subsequent to the purchase of tangible goods. Hence there is little research into determining if the intangible elements in the after-sales offering impact on customer satisfaction (Hypothesis A) and on customer's willingness to spread WOM (Hypothesis B).

Figure 1 shows the research model and hypotheses. Each item and scale will be described in the Research Methods section.



Figure 1. Research model and hypotheses



Research Method

## Data sample and collection

Data collection focused on after-sale service evaluations as by customers of the automotive industry. The aim was to explore the importance of each of the intangible after-sales elements, such as the role of personnel, process and physical evidence, and their impact on overall customer satisfaction and WOM. The automotive industry was selected for several different reasons. The first is the complexity of the products in this market, which drives customers to seek advice from trustworthy sources. Secondly, the European automotive market has faced a crisis over the last decade, and the number of new cars sold has halved (UNRAE 2013). Thirdly, the block exemption regulation has required European manufacturers to undertake performance improvements. Changes that manufacturers have been confronted with since this regulation came into force in 2003



include sharply reduced control over their distribution networks, as well as increased competition in the parts and after-sales businesses.

We chose to investigate after-sales services in one of the largest authorised car dealers in the north-east of Italy, a country where there is the highest number of cars in terms of density. However, due to the automotive crisis, the country's cars are ageing and need increased maintenance. Under these circumstances, car maintenance services become an effective way for car dealers to increase customer loyalty and revenue beyond car sales. Assistance centres are responsible for repairing and maintaining cars, and several channels can be identified: those authorised through contractual agreements to sell and repair (dealers), or to repair only (authorised garages), generic centres (independent garages), specialised services (tyre repairers, electrical workshops etc.), fast fitters (independent or authorised) specialising in handling minor repair work and the soft franchise network (independent, owned by a component supplier or by a distributor). In most cases, only dealers, and to a minor extent authorised garages, maintain direct and continuous relationships with the manufacturers (Gaiardelli, Saccani & Songini 2007). In our case we collected data from a fully authorised after-sales service provider totally integrated with the car dealer. Data was collected through an on-site self CASI (Computer Assisted Self-Interview) survey using a tablet tool. This was useful for collecting real-time feedback a few minutes after the provision of assistance services.

Questions were developed with a focus group from the car dealership that included the dealership personnel, two researchers and ten customers. The goal was to summarise in a short survey the main activities and services that can be identified in the after-sales experience. A ten-question survey was finally structured. These questions were divided into two main sections: a) demographic characteristics of respondents; and b) after-sales service items evaluated by adopting a 1–10 Likert scale (1=highly dissatisfied to 10=highly satisfied) and two questions about overall satisfaction (1=highly dissatisfied to 10=highly satisfied) and the willingness to recommend the company (1=highly disagree to 10=highly agree).

Respondents were asked to evaluate their satisfaction for the following after-sales elements. These might be labelled as being from the 'physical evidence' dimension, such as the customer waiting area (the atmosphere, colours and furniture of the area where customers receive their car assistance and maintenance services) (Hp 2a), and the documentation quality (if the documents provided to customer, such as invoices or instructions are clear and well written) (Hp 6a). Other items related to the after-sales service may fall under the 'process' dimension; for instance, welcoming activities (Hp 1a), the contact service used to order the assistance (Hp 5a) and the service lead time (Hp 8a). Finally, the 'people' dimension may play an important role for the perception of high satisfaction. In this study, this dimension is represented by personnel expertise (Hp 3a) and staff courtesy, (Hp 4a) which provide added value to the overall offering. In addition to the '3Ps' of service marketing, the perception of quality over price was included in the survey (Hp 7a) in terms of its relationship with overall satisfaction.

The relationship between these items and their impact on willingness to spread WOM were explored. The following items were considered in this analysis: welcoming activities (Hp 1b), the customer waiting area (Hp 2b), personnel expertise (Hp 3b), personnel courtesy (Hp 4b), the contact service (Hp 5b), documentation quality (Hp 6b), and quality over price (Hp 7b). A pilot survey was administered to a convenience sample of 105 customers. Later the questionnaire was administered to a convenience sample of Italian



customers. Data collection started in November 2012 and ended in December 2012. Within this time period, the car dealer counted 649 customers receiving an after-sale assistance/service. We obtained 210 completed surveys, with a return rate of 32.4%; 27.6% of the respondents were females and 72.4% males. The majority of respondents stated their age was between 35 and 64 years old (77%).

## Data analysis

The data were analysed with descriptive statistics and a linear regression model exploring the impact of the after-sales elements on overall customer satisfaction and WOM. The outcomes of satisfaction and WOM were each measured using a single item adapted from Huntley (2006). Table 1 summarises the items selected for the analysis:

Items	Min	Max	Mean	Std. dev.
Welcoming	2	10	8.733	1.216
Customer waiting area	2	10	8.676	1.260
Personnel expertise	5	10	8.9	1.074
Personnel courtesy	5	10	9.067	1.083
Contact service	5	10	8.786	1.189
Documentation quality	3	10	8.790	1.223
Quality versus price	1	10	7.5	1.578
Service lead time	2	10	8.348	1.508
Overall satisfaction (Hp A)	4	10	8.586	1.204
WOM (Hp B)	1	10	8.576	1.453

Table 1. Intangible services in the after-sales experience

The following regression models were elaborated, using R software:

- a) overall satisfaction= $\beta$ +  $\beta$ 1 welcoming+  $\beta$ 2 waiting area+  $\beta$ 3 expertise + $\beta$ 4 courtesy+  $\beta$ 5 contact service+  $\beta$ 6 documentation+  $\beta$ 7 quality+  $\beta$ 8 service lead time+  $\varepsilon$
- b) word of mout  $h=\beta+\beta 1$  welcoming+  $\beta 2$  waiting area+  $\beta 3$  expertise +  $\beta 4$  courtesy+  $\beta 5$  contact service+  $\beta 6$  documentation+  $\beta 7$  quality+  $\beta 8$  service lead time+  $\epsilon$

In order to assess reliability, the internal consistencies were assessed. The normalised value of Cronbach's alpha was 0.8, in line with the minimum value of 0.7 suggested by Cortina (1993).

### **Findings**

All the after-sales items were perceived positively, and customers were extremely satisfied. In fact, all elements had an average mean above 8, except for quality over price, which received an average mean of 7.5–10. The item that received the highest satisfaction was personnel courtesy (M=9.06). In addition, the overall satisfaction reported by customers for their after-sales experience was very high (M= 8.586), and this was also the



case their willingness to report their experience to other people, as the likelihood to spread WOM was on average 8.576.

The first regression analysis focused on the impact of after-sales intangible elements on overall customer satisfaction (Table 2). The results showed that some of these elements positively affected the evaluation of customer satisfaction. This was the case for welcoming activities, personnel courtesy, the quality of the service over its price and the service lead time. The perception of the contact service almost reached significance at p=0.05 (These elements belong to the 'process' and 'people' 'Ps' of service marketing, while the elements belonging to the 'physical evidence' of the '3Ps' of service marketing (in our case the customer waiting area and the documentation quality), seem not to affect overall satisfaction. As a consequence, Hp 1a, Hp 4a, Hp 7a and Hp 8a are supported.

Table 2. Regression analysis for customer satisfaction

	Estimate	Std. Error	T Value	Pr(> T )	Hypothesis
Intercept	-0.278	0.426	-0.653	0.514	
Welcoming	0.114	0.054	2.097	0.037*	Hp 1a supported
Customer waiting area	0.070	0.044	1.600	0.111	Hp 2a not supported
Personnel expertise	0.032	0.070	0.457	0.648	Hp 3a not supported
Personnel courtesy	0.303	0.069	4.371	1.98 e-05***	Hp 4a supported
Contact service	0.095	0.052	1.814	0.071	Hp 5a not supported
Documentation quality	0.015	0.032	0.047	0.743	Hp 6a not supported
Quality versus price	0.256	0.033	7.572	1.31 e-12***	Hp 7a supported
Service lead time	0.157	0.037	4.221	3.69 e-05***	Hp 8a supported

Significance codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1
Residual standard error: 0.6383 on 201 degrees of freedom
Multiple R-squared: 0.7297, Adjusted R-squared: 0.7189
F-statistic: 67.83 on 8 and 201 DF, p-value: <2.2e-16

Regarding the impact of after-sales service on customers' willingness to recommend the company to other people, the courtesy of the personnel positively affects WOM (Table 3). In addition, the contact service plays a positive role in influencing the willingness of customers to spread positive WOM about their after-sales experience. The quality of the service compared to its price and the time of service delivery still represent the most important elements for customers. This is confirmed both for their impact on overall satisfaction and on WOM, and so Hp 4b, Hp 5b, Hp 7b and Hp 8b are fully supported.



	Estimate	Std. Error	T Value	Pr(> T )	Hypothesis
Intercept	-0.526	0.654	-0.804	0.422	
Welcoming	-0.018	0.083	-0.219	0.827	Hp 1b not supported
Customer waiting area	0.048	0.067	0.711	0.477	Hp 2b not supported
Personnel expertise	0.108	0.107	1.003	0.317	Hp 3b not supported
Personnel courtesy	0.270	0.106	2.541	0.011*	Hp 4b supported
Contact service	0.171	0.080	2.119	0.035*	Hp 5b supported
Documentation quality	0.009	0.072	0.013	0.989	Hp 6b not supported
Quality versus price	0.311	0.051	5.998	9.16 e-09***	Hp 7b supported
Service lead time	0.188	0.057	3.308	0.001**	Hp 8b supported

Significance codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1
Residual standard error: 0.9789 on 201 degrees of freedom
Multiple R-squared: 0.5635, Adjusted R-squared: 0.5461
F-statistic: 32.44 on 8 and 201 DF, p-value: <2.2e-16

Our study confirms the relationship between customer satisfaction and WOM. In fact, they are strongly and positively correlated (r=0.714), and customer satisfaction impacts on the propensity of customers to spread WOM (As a consequence, Hp 9 is supported.

## Conclusions and Implications

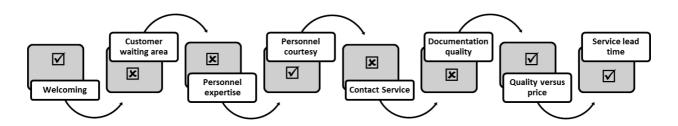
To meet the complex needs of customers and to respond to the increased challenges from competitors, firms have developed a growing interest in using product services throughout their life cycle of their products (after-sale services, financial services, warranties, etc.) as a source of competitive advantage. The automotive industry is one of the most competitive industries in the world, and is probably one of the most changed industry sectors over the last decade. Moreover, in Europe, competition is increasing due to market liberalisation actions taken by the European Commission, globalisation and rising customer demands. Automotive companies have found it difficult to compete when offering products alone, and therefore many firms have turned to services as a means to achieve strategic advantages. This trend, known as service infusion into manufacturing, servitisation, outsourcing or transition to service-led business, can be observed in the automotive industry (Godlevskaja, Jos van Iwaarden & Ton van der Wiele 2011). After-sales services have become closer to the core business that enables dealers to achieve sustainable development in the competitive arena that has resulted from the gradual fall in profits from new car sales.

Our study contributes to understanding the role and impact of after-sales service based on the perception of service quality. In particular, we have investigated the role of the three 'Ps' of service provision on overall satisfaction and customer WOM. The results show that



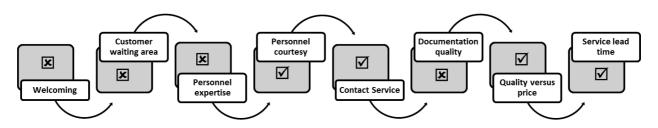
the welcoming process, personnel courtesy and the quality of service (over price and the quality of lead time) represent drivers of overall satisfaction (Figure 2).

Figure 2. Customer satisfaction and after-sales elements



Thus, customers are willing to recommend a service provider when they are highly satisfied with regards to the provider's personnel, contact service, quality versus price of the service and the lead time (Figure 3).

Figure 3. WOM and after-sales elements



One limitation of this study is the focus on one dealership, belonging to one industry. This might be further expanded to other industries by comparing the after-sales experiences between them. Future research might compare the impact of each of the different steps of product offering, from the pre-purchase stage, the purchasing experience and through to the after-sales service experience, on customer satisfaction and WOM. This might provide a better understanding of the most relevant activities that will enable manufacturers to build customer satisfaction and consequently customer loyalty, with WOM representing one element of loyalty.

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# The influence of total quality management on risk identification and non-financial performance measures: an Italian-based empirical analysis

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#### **Abstract**

Both total quality management (TQM) and risk management (RM) are concerned with the realization of strategy. Some authors have recently focused on the potential integration of quality management and RM, highlighting the need of combining information to improve decision making. The exploratory study presented in this paper addresses the field of TQM and RM, to investigate the influence of TQM adoption on risk identification.

Further, drawing also special attention to the effects of the intangible resources, the study examines the differences between TQM and non-TQM firms about the emphasis placed on the use of non-financial performance measures.

The empirical investigation is based on a survey of a sample of large Italian firms. Non-parametric statistical data analysis is employed. The results provide evidence that significant and positive associations exist between TQM firms and the importance of risk identification, as well as between TQM firms and the use of non-financial performance measures.

Key words: total quality management, risk management, non-financial performance measures.

#### Introduction

In a contemporary manufacturing environment characterized by the challenges of global competition, the search for competitive advantage has raised "the priority of quality and risks in industrial and business strategies" (Kenett and Tapiero, 2009). In international markets, consumers have increasingly required high quality products and services; advanced managerial and manufacturing practices, such as total quality management (TQM), have known a significant dissemination during the last decades. Risk management (RM) has also become an important topic in recent years, and the interest has intensified in the aftermath of the 2008 crisis and other corporate disasters (Mikes and Kaplan, 2013).

Quality, defined as "the consistent conformance to customers' expectations" of products or services (Slack et al., 2001), has risen to become a strategic competitive variable (Chenhall, 1997) and TQM has become a "pervasive strategic force in today's industrial economy" (Powell, 1995). Thus, scholars have recognized TQM as a business level strategy (Reed et al., 2000) and have demonstrated the existence of a link between the use of TQM practices within firms and the achievement of competitive advantages (Douglas and Judge, 2001). Other authors (e.g. Prajogo and Sohal, 2006; Jung et al., 2009) have recognized that TQM can support the implementation of a differentiation



strategy, whereas the relationships between TQM and a cost leadership strategy are weaker. Since TQM requires firms to coordinate a wide range of intangible resources, the resource theory of the firm provides an appropriate perspective for analyzing the effects of the use of quality management practices on firms' performance (Powell, 1995).

At the same time, many questions about risk need to be taken into account in formulating business strategies; risk may represent a threat to the ability of a firm to execute business processes effectively and to achieve strategic objectives (Baird and Thomas, 1985; O'Donnell, 2005). RM is the process whereby firms methodically address the risks relating to their activities (Dequae, 2007). The development of an integrated RM approach (commonly referred to as Enterprise Risk Management), in which all risks are viewed together within a coordinated and strategic framework, seeks to directly relate RM with business strategy and objective-setting (Power, 2007; CoSO, 2004; Arena et al., 2010). Several authors emphasize the role of RM as a critical tool in supporting strategic decision making (e.g. Nocco and Stulz, 2006; Frigo and Anderson, 2011).

The resource theory of the firm recognized that the central theme for explaining the achievement of a competitive advantage is the role of factors that are internal to the firm. Idiosyncratic resources contribute to create a superior market position allowing the firm to generate more valuable returns (Conner and Prahalad, 1996; Barney, 1996). Resources include: "assets, capabilities, organizational processes, firms attributes, information and knowledge" (Barney, 1991) and can be classified in three all-encompassing categories: physical, human and organizational. However, as knowledge management became more widely implemented and sophisticated, the intangible resources are viewed as being the main drivers of TQM and RM performance impacts. This new emphasis on intangible resources in quality and RM literature allows to shed light on how and why the implementation of TQM and RM practices unleashes the potential to generate benefits for firms.

The exploratory study presented in this paper addresses the fields of TQM, RM, and performance measures. In particular, the study aims to investigate the influence of the adoption of TQM on risks identification and on the importance of non-financial performance measures using a sample 58 large Italian firms. The sampled firms are divided in TQM firms and non-TQM firms, and comparisons are provided between the two groups of firms with reference to both the importance placed on identification of strategic risks (Simons, 1999) and on the importance of non-financial performance measures.

#### Literature review

The literature view is divided in three sections. The first section provides an overview on the key characteristics of TQM and RM, whereas the second one deals with the connections between TQM and RM. Finally, the third section examines TQM's role as a strategic resource, drawing on the resource based theory of the firm and intangible literature.

#### TQM and RM

TQM is the most significant contemporary approach to QM. TQM is "an integrated management philosophy and set of practices that emphasizes, among other things, continuous improvement, meeting customers' requirements, reducing rework, long-range thinking, increased employee involvement and teamwork, process redesign, competitive



benchmarking, team-based problem solving, constant measurement of results, and closer relationship with suppliers" (Powell, 1995). It lays particular stress on the need to provide customers with high quality products, in order to increase efficiency at all stages of the production process (Chenhall, 1997). Under a TQM approach, quality managers attempt to minimise the likelihood of potential events (failures) in the operations which can be critical for product quality and reliability (Slack et al., 2001). In other words, TQM is based on the principle of risk prevention.

RM is a process representing "a critical facet of an organisation's control system where timely identification, assessment and management of the portfolio of risks faced by an entity are linked with the achievement of its goals and objectives" (Subramaniam et al., 2011). It is developed through a coordinated set of actions, directed at identifying and assessing risks that could affect the firm's capability to achieve its objectives. Risk identification is the first stage in RM operationalisation, and it is based on the development and update of a list of potential events (risk register) to which the firm is exposed and that could affect both business process performance and the ability to achieve objectives (O'Donnell, 2005). Since RM embraces the whole firm instead of focusing on specific parts, the range of risk typologies has been continuously enlarged, shifting away from operational risks toward strategic and competitive risks.

Simons (1999) defines strategic risk as "an unexpected event or set of conditions that significantly reduces the ability of managers to implement their intended business strategy", whereas competitive risk relates to changes in the competitive environment which affect the ability of a firm to differentiate its products/services from its competitors. He identifies different sources of strategic risks, among which are operational risks, asset impairment risks, competitive risks and reputational risks<sup>6</sup>. Operational risks derive "from the consequences of a breakdown in a core operating, manufacturing, or processing capability" and it can result from human errors, system failures, and inadequate processes or controls. Operational risks are often the results of poor management of key processes by the firms and its staff (Williams et al., 2006), and can hamper the flow of high quality products, exposing the firm to potential loss and liabilities. Competitive risks can arise from events involving: a) the actions of competitors in developing higher quality products and services; b) changes in regulation and public policy; c) shifts in customer tastes or desires; d) changes in supplier pricing and policies. Moreover, competitive risks can also be caused by inappropriate employee behavior in dealing with customers, suppliers, and competitors. Reputational risks<sup>7</sup> are linked to business problems or actions adversely affecting customer perceptions of value in using the business's products or services, or to a loss of confidence by other stakeholders (Simons, 1999). Reputational risks may occur as a consequence of excessive operational risk, asset impairment risk, or competitive risk.

<sup>&</sup>lt;sup>6</sup> See Simons (1999) for a discussion of all sources of strategic risk.

<sup>&</sup>lt;sup>7</sup> A firm's reputation is "a collective representation of a firm's past actions and results that describes the firm's ability to deliver valued outcomes to multiple stakeholders" (Fombrun and Van Riel, 1997). It is built over time, and has to be considered in the context of the marketplace and in relation to the actions of the other firms. Reputation can be influenced by different factors (Bebbington et al., 2008): financial performance; management quality; social and environmental responsibility performance; employee quality; the quality of the goods/services provided.



#### Connections between TQM and RM

Williams et al. (2006) have addressed a number of key issues in examining the connections between the field of RM and the field of quality management. They recognize three ways in which quality management expertise and experience can influence RM: "(1) in distinguishing between risks which can, and which cannot, be treated statistically: (2) through knowledge and experience in managing key processes; and (3) in implementing major organizational and cultural change". TQM and RM also share other common concerns. They both deal with problems resulting from uncertainty, driven by internal or external causes, which are subject to probabilities defining their occurrence. As a result, they are both required to handle variability and may resort to statistical methods. As Kenett and Tapiero (2009) highlight, "the many tools used in managing risks seek to define and maintain the quality performance of organizations, their products, services and processes". Popescu and Dascalu (2011) suggest that a risk-based approach strengthens the effectiveness of quality management systems. They propose a methodological framework for integrating RM in QM, assuming that "the two dimensions complement each other, being components of the indicator system that measure the performance of the organization". RM is seen as a key activity, associated with a wide set of decisions in support of strategic management, project changes and basic processes. Further, as Nitu et al. (2011) note, the international standard ISO 9004:2009 explicitly includes RM as a key feature of quality management process for firms which are interested in continuous improvement. In ISO 9004:2009, the identification and assessment of risks is considered as an element of TQM principles.

#### TQM, RM and intangibles

Scholars argue that TQM and RM practices can be used to generate competitive advantage, improving product and process quality and then increasing revenues and customer's satisfaction and reducing risks (Powell, 1995). Because TQM and RM implementation requires firms to "coordinate a wide range of behavioral, tacit and intangible resources" (Powell, 1995), literature in TQM and RM has paid substantial attention to the role of intangible resources in improving a firm's performance. The diffusion of knowledge management practices both in manufacturing and service firms, allows to move the TQM and RM theory landscape to the resource theory of the firm, emphasizing the role of intangible resources and, thus, overlapping with the traditional management theory (Dean and Bowen, 1994). This new dimension of theory building has generated an immediate appeal for drawing new insights on the theoretical link that exist between TQM (and other quality management practices) and a firm's competitive advantage.

The adoption of resource based theory and, especially, the intangibles literature allows to expand the knowledge of the quality literature, introducing a new lens for studying the benefits of the use of quality management practices (Reed et al., 2000). Among the authors, a complete agreement exists about the benefits of the use of TQM practices: improving customer satisfaction and reducing costs. These two benefits are increasingly explained by using the model centered on the firm's resources that provide a superior market position. Firm's resources are organizational factors that are firm-specific, embedded in the firm's culture and history, difficult to imitate, path-dependent and developed over time. These resources are viewed as being the main drivers of competitive advantage and their nature is increasingly becoming intangible. The "lasting and superior nature of intangible resources" (Hall, 1993) allow to better explore, from a theoretical



perspective, the relationship between TQM and competitive advantage. Using concepts from the intangible literature, scholars showed how the process of TQM and other quality practices has the potential to create a sustainable competitive advantage. Human and organizational factors (such as competencies, team work, leadership, training, top management commitment, norms, procedures, manufacturing processes and non-financial performance measures) are identified as a fundamental component of TQM practices and, then, they are considered in exploring and understanding the potential for competitive advantage generation.

# Development of hypotheses

The identification of strategic risks and their mitigation are recognized as important factors for the implementation of a strategy aimed at meeting customer needs and, thus, to improve a firm's performance. In the TQM context, the identification and mitigation of strategic risks are at the heart of successful TQM implementation. Adopting the Simons approach (1999), strategic risks can be divided into: a) operational risks, b) competitive risks, c) reputational risks. All these categories identify specific types of intangible resources that are rooted in human (capabilities, training, commitment, leadership) and organizational factors (procedures, rules, reputation).

Concerning the operational risk, TQM practices are aimed at achieving quality improvements and to reduce costs. They rely on the detection and the analysis of what can go wrong in key operational processes. Thus, TQM firms pay particular attention to potential failures regarding operations design, facilities (machines, equipment, buildings) and staff (Slack et al., 2001) and are more oriented to introduce knowledge management tools for making operational processes more transparent and knowable. TQM approaches are mainly based on efforts for workforce training and knowledge formalisation intended to eliminate operational errors and product or service defects. Thus, these considerations suggest the following hypothesis:

H1a: The identification of operational risks is more important in TQM firms than in non-TQM firms

Concerning the competitive risk, TQM practices typically are focused on understanding customers' needs and their evolution over time in order to meet their requirements. To entail closer relationships with customers, TQM firms use benchmarking techniques and acquire specific market knowledge form customers and competitors (Powell, 1995). Moreover, TQM firms pay attention to the role and responsibility of personnel because their behaviors can affect the relationships with customers and competitors. Popescu and Dascalu (2011) note how the analysis of suppliers developed by TQM firms represents a specific form of risk analysis, and Avanesov (2009) suggests that TQM must take into account also risks arising from the competitive environment in which the firm operates and from environmental changes. Thus, these considerations suggest the following hypothesis:

H1b: The identification of competitive risks is more important in TQM firms than in non-TQM firms

Concerning the reputational risk, TQM practices are oriented to significantly influence customers' perception. A positive reputation is an important driver of successful relationship with customers (Ruso et al., 2012) and can affect a firm's performance. For example, the reputation for delivering high quality products and services can enable firms



to charge higher prices and earn higher profits (Kaynak, 2003). Further, firm reputation may be considered as a signal of the firm's ability to satisfy the customer's expectations (Nguyen and Leblanc, 2001). Under TQM, reputation among customers is a primary source of competitive advantage (Powell, 1995). Despite most firms considering reputational risk as a consequence of operational or competitive risk and damages to reputation rarely being acknowledged by audit or risk committees (CIMA, 2007), TQM firms should assign a crucial importance to the detection of a wide range of failures to meet customers' expectations. These considerations suggest the following hypothesis:

H1c: The identification of reputational risks is more important in TQM firms than in non-TQM firms

As already stated, scholars agree that the main aim of TQM is to reduce cost and improve customers' satisfaction. Equally consistent is the view that the link between the use of TQM and competitive advantage is theoretically validated (Flynn et al., 1995, Powell, 1995), but there have been only a few attempts to empirically verify it. For example, Easton & Jarrell (1998) investigated the impact of TQM on the performance of 108 firms that began TQM implementation between 1981 and 1991. Hendricks and Singhal (1996) explored the link between quality and financial performance analysing accounting data of firms that have won quality awards, against a control group of non-winners. Powell (1995) examined 39 US manufacturing firms and found that only the intangible aspects of quality practices (employee commitment, shared vision, customer focus) contributed to organizational performance.

While the definition of TQM is well established in literature, performance remains a loosely defined construct. This multifaceted concept makes the selection of the most suitable indicators difficult. Previous research on the link between TQM practices and performance has covered both soft and hard performance indicators. Hard indicators are accounting variables, while soft indicators (non-financial performance measures) are strictly linked to intangible and intellectual dimensions of the sources of competitive advantage. As Mc Adam & Bannister (2001) suggested, both hard and soft measures of performance are needed within the TQM framework. However, considering that TQM has an extensive focus on intangible and intellectual variables, we argue that the analysis aiming at empirically verifying the link between TQM and performance should also focus on non-financial measures. Further, "non-financial performance measures have attained greater theoretical prominence since the promotion of the 'balanced scorecard'" (Abdel-Maksoud et al., 2005).

Thus, according to the literature on TQM, we state that the use of TQM practices can accomplish the following internal benefits: a) improving efficiency and enhancing productivity (Hendricks and Singhal, 1997); b) improving human resources management (Ho et al., 2001) b) increasing customer satisfaction and loyalty (Handfield et al., 1999). Chenhall (1997) highlights that, in TQM settings, non-financial manufacturing performance measures are required "to ensure that processes are in control and can be continuously improved". He claims that non-financial manufacturing performance measures focus on customer satisfaction and on aspects linked to the manufacturing process. Ittner and Larcker (1995) suggest that TQM practices are related to information systems placing greater emphasis on non-financial performance measures, including measures of manufacturing process performance, information regarding the workers performing the job, and customer satisfaction measures. Further, Abdel-Maksoud et al. (2005) conclude that



TQM firms "are likely to take considerable interest in a wide range of non-financial measures".

These considerations suggest the following hypothesis:

H2: In TQM firms, non-financial performance measures are more important than in non-TQM firms

Research design and data collection

The study employs a survey-based methodology, using a questionnaire to collect data. The questionnaire was filled out by the Chief Financial Officer (CFO) and Chief Executive Officer (CEO) of a sample of large Italian manufacturing firms, and data were gathered from November 2012 to February 2013. Only firms with at least 500 employees were included in the target sample, which was selected from the population of firms (479 firms) comprised in the dataset obtained by the Chamber of Commerce, Industry, Crafts and Agriculture (CCIAA). The CCIAA dataset captures all the Italian firms and it contains firms listed on the Milan Stock Exchange. We focus on a sample of large size firms, as several studies agree that size is a determinant of RM adoption (Mikes and Kaplan, 2013).

The survey was structured in two phases. In the first phase, a random sample of 179 firms was selected, and a letter was mailed to the firms' CEO or CFO in order to ask them for the availability to receive and fill out the questionnaire. 70 firms agreed to be surveyed. In the second phase, a web questionnaire was sent to them. A total of 58 complete and usable questionnaires were returned, giving a response rate of 32.4%. In order to assess the possibility of non-response bias, we conducted a comparison of the profile of respondents against the sector of firms in the selected sample. This comparison showed that respondents are significantly similar to sampled firms with regard to sector. For the sample selection, we considered the hypothesis of missing-at-random.

The questionnaire consists of sections focusing on firm characteristics (including an item on the use of TQM practices), pressures from business environment and business strategies, management accounting innovations and non-financial performance measures, as well as RM processes. The questionnaire was pilot-tested by a number of face-to-face interviews with Chief Risk Officers (CROs) or CFOs operating in different sectors. Semi-structured interviews were used to insure the pertinence of the questions and to amend their formulation.

#### Measures

Firms are classified into two groups, according to whether they use TQM or not. An item of the questionnaire requested firms to indicate whether they use TQM practices. A value of 1 was attached to firms using TQM and a value of 0 to firms that do not use TQM. Another item requested firms to indicate whether they carry out a RM process in order to identify specific strategic risks. A value of 1 was attached to firms carrying out a RM process and a value of 0 to firms that do not.

In order to study the relationship between TQM and the identification of strategic risks, the respondents of firms carrying out a RM process were asked to indicate on a 5-point Likert scale (from 1 = not important to 5 = crucial) the relevance assigned to the identification of the different sources of strategic risks: operational risk, competitive risk, and reputational risk. Moreover, in order to study the relationship between TQM practices and the



importance of non-financial performance measures, the respondents of TQM firms were asked to indicate on a 5-point Likert scale (from 1 = not important to 5 = crucial) the relevance assigned to different non-financial performance measures.

To test the hypotheses, a one-sided Mann-Whitney test was used. Mann-Whitney is a rank-based non-parametric test which allows to detect differences in the locations of two groups of observations. As our observations consist of ordinal-type data, and the numbers assigned to observations attain meaning only in an ordinal comparison with the other observations, Mann-Whitney test is considered an adequate choice (Conover, 1980). We applied it to compare the average importance scores assigned to the identification of strategic risks and to the use of various RM quantitative techniques across the two groups of firms (TQM and non-TQM).

# Survey results

Table 1 summarizes the categorisation of firms that responded to the survey, according to whether they use TQM practices and whether they carry out a RM process.

The majority of respondents in the sample (56,9%) use TQM practices, and most of the firms (almost 71%) carry out RM processes in order to identify, assess and control risks.

Table 1 – Summary statistics on respondent firms

	RM	Non-RM	Total	
TQM firms	24	9	33	
Non-TQM firms	17	8	25	
Total	41	17	58	

Table 2 summarizes responses on the importance assigned by firms to the identification of the different strategic risks.

Table 2 – A comparison of the importance of identifying strategic risks for the two groups of firms

	TQM firm	18	Non-TQM	l firms
	Mean	S.D.	Mean	S.D.
Operational risk	3.96	0.93	3.43	0.76
Competitive risk	4.04	0.82	3.64	0.84
Reputational risk	3.96	1.07	3.40	0.83

Mean and standard deviation are displayed separately for each source of strategic risk and for the two groups of firms (TQM and non-TQM). This analysis facilitates the use of a non-parametric analysis of variance test (one-sided Mann-Whitney) with the aim to understand whether there are statistically significant differences in the importance of identifying strategic risks in the two groups of firms. The results of statistical analysis are presented in Table 3.



Table 3 – Results of Mann-Whitney test for the importance of identifying strategic risks

	Mean rank			
	TQM firms	Non-TQM firms	Mann-Whitney	p-value
Operational risk	21.39	15.07	216.0	0.033**
Competitive risk	20.89	15.89	204.5	0.075*
Reputational risk	22.02	15.63	230.5	0.037**

\*Significant at: \* 0.10 level; \*\* 0.05 level

Table 3 shows that there are significant differences (at the 5% level or at the 10% level) between the two groups of firms regarding the importance attached to the identification of strategic risks in the RM process. In particular, although both TQM and non-TQM firms using RM rely on the identification of strategic risks (the mean importance is larger than 3 in all cases), the average importance is significantly higher for TQM firms in relation to all sources of strategic risk. The attention required by TQM principles to quality failure diagnosis and prevention and to continuous improvement may lead managers to take into account, in the RM process, a number of potential events affecting operations, employee behavior in dealing with customers, suppliers and competitors, and reputation. These potential events, as sources of strategic risks, can produce an adverse influence on customer perceptions and require managerial attention in order to mitigate them.

Hypothesis 2 (H2) seeks to identify a relationship between the use of TQM practices and the importance placed on non-financial performance measures. Since non-financial performance is a multifaceted construct, we try to provide empirical evidence on whether or not implementation of TQM practices affects the importance of the three levels of a firm's non-financial performance measures: manufacturing process performance, human resources and customer satisfaction. Based on the results of literature review (e.g. Abdel-Maksoud et al., 2005), we identify ten variables able to explain the different levels of performance measures. Five variables concern manufacturing process performance (number of set-ups, manufacturing cycle efficiency, efficiency, capacity utilization, schedule adherence), two variables concern human resources (schedule adherence, absenteeism) and, finally, three variables concern customer satisfaction (on-time delivery to customers, number of complaints from customers, number of customer returns). Table 4 displays the mean scores and the standard deviations for the responses provided.



Table 4 – A comparison of the importance of non-financial performance measures for the two groups of firms

	TQM fire	ns	Non-TQM firms		
	Mean	S.D.	Mean	S.D.	
Number of set-ups	2.56	1.16	2.27	1.05	
Manufacturing cycle efficiency	3.59	0.84	3.12	1.18	
Defects (% of total production)	3.81	0.82	3.38	1.17	
Efficiency (std hours produced/hrs worked)	3.88	0.86	3.88	0.91	
Capacity utilisation (hrs worked/budgeted hrs)	3.75	0.80	3.50	0.91	
Schedule adherence	3.41	0.87	3.12	0.95	
On-time delivery to customers	4.06	0.98	3.65	0.80	
Absenteeism	3.00	0.98	2.69	0.93	
Number of complaints from customers	3.75	1.05	3.50	1.07	
Number of customer returns	3.09	1.30	2.96	1.28	

Table 5 includes Mann-Whitney test and p-values. Statistical results highlight that there are significant differences between TQM firms and non-TQM firms concerning manufacturing cycle efficiency and on-time delivery to customers. Moreover, the results show that the relationship between TQM practices and defects and capacity utilisation is positive, but with a lower standard coefficient.



Table 5 – Results of Mann-Whitney test for the importance of non-financial performance measures

#### Mean rank

	TQM firms	Non-TQM firms	M a n n - Whitney	p-value
Number of set-ups	31.67	26.82	485.5	0.132
Manufacturing cycle efficiency	32.84	25.38	523.0	0.038**
Defects (% of total production)	32.09	26.31	499.0	0.083*
Efficiency (standard hours produced/hrs worked)	29.42	29.60	413.5	0.973
Capacity utilisation (hrs worked/budgeted hrs)	32.01	26.40	496.5	0.089*
Schedule adherence	31.59	26.92	483.0	0.135
On-time delivery to customers	33.15	25.00	533.0	0.027**
Absenteeism	31.87	26.58	492.0	0.103
Number of complaints from customers	31.39	27.17	476.5	0.163
Number of customer returns	30.34	28.46	443.0	0.335

\*Significant at: \* 0.10 level; \*\* 0.05 level

The greater emphasis attached by TQM firms to on-time delivery to customers as a performance measurement is consistent with Chenhall (1997), which described on-time delivery as an important capability for TQM firms, due to strong customer focus. The significant difference between the two groups of firms with regard to the importance of manufacturing cycle efficiency and other manufacturing process measures (defects, capacity utilisation) confirm the Abdel-Maksoud et al. (2005) findings of positive correlations between TQM and a wide set of non-financial performance measures, including measures of efficiency and cost control. In TQM firms, quantitative measures of manufacturing are used to assess the managerial efforts to develop and implement TQM practices (Chenhall, 1997).

All firms seem to place considerable reliance on measuring efficiency (the mean importance is 3.88 for both groups) and number of complaints from customers (the mean importance is high for both groups), while measures of absenteeism would probably be more important in small firms, where the absence of employees is more critical (Abdel-Maksoud et al., 2005).

#### Discussion and conclusions

This exploratory study, based on a large sample of firms, provides an initial attempt to identify the effects of the use of TQM practices on RM, with regard to risk identification, and provides insights into the use of non-financial measures of performance by TQM firms.



A first result of the study demonstrates that TQM firms are interested in monitoring strategic risks and, thus, are more attentive in managing intangible resources that underpin the TQM implementation. Some of the suggestions of recent literature and TQM standards appear to have been implemented in practice. We considered strategic risks that can stem from three sources of strategic risk: operational, competitive and reputational. Strategic risks identification is a source of information about the firm's operating and competitive environment, and a tool for continuous improvement, to the extent that it allows failures prevention and provides managers with a better knowledge and comprehension of their business and of the events that can prevent the firm from achieving its strategic objectives. Our expectation that in TQM firms (carrying out RM processes) the identification of strategic risks is more important than in non-TQM firms (carrying out RM processes) is supported by the data.

A second result is that TQM firms place greater emphasis on non-financial performance measures than non-TQM firms. We examined the differences between the two groups of large firms (TQM firms and non-TQM firms) in relation to the importance recognized in the use of non-financial performance measures. Differences are significant with regard to manufacturing cycle efficiency, on-time delivery to customers, defects and capacity utilisation, which are significantly more important for TQM firms. Our findings are consistent with the view that TQM is associated with greater reliance on non-financial performance measures and detailed process information that is often not available from aggregate accounting data (Fullerton and Wempe, 2009).

As with any research, this study has various limitations. Firstly, due to the limited number of observations, this study raises questions about the generalisability of the survey results. A test was conducted in order to prevent the threat of non-response bias, but, although the response rate was 32.4%, we cannot definitely assert that respondent firms are suitable substitutes for the whole population of Italian large firms. Moreover, there may be different "environmental factors that potentially affect the use of RM", e.g. regulatory pressures (Subramaniam et al., 2011), or internal factors, e.g. the culture of RM throughout the firm (Mikes, 2009), whereas this study considers a single factor. Ultimately, further research is necessary in order to better understand the connections between TQM and RM, considering also other stages of the RM process in addition to the risk identification stage (e.g. risk assessment and risk mitigation).

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# Credit quality, bank provisioning and systematic risk in banking business

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#### **Abstract**

Based on a sample of 59 European banks over the period 2006-2011, we investigate the impact of the loan loss provisioning (LLP) together with a wide array of credit-risk exposure and performance variables on systematic risk measured by betas. We develop a model for assessing whether management behaviour, accounting policies, such as LLP, and the quality of loan portfolio play a significant role in explaining the banks' systematic risk exposure. Our results suggest that financial performances do not have a direct significant relation with betas; rather measures of risk exposures (risk weighted assets on total assets) substantially affect systematic risk. During crisis systematic risk significantly responsive to provisions and their impacts on performances.

Our study has several implications, in particular at light of changing European regulation on non-performing exposures reporting and forbearance practices alongside with regulators forcing banks to strengthen their capital base.

#### Introduction

Managerial behaviour and accounting policies have a huge impact on corporate earnings and their information content. Reporting of non-performing loans and loan loss provision (LLP) practices are among the major concerns in the banking industry. Asset quality, exposure to credit-risk and provisioning bear great implications in relation to earnings volatility and capital adequacy. Managers may rely on discretionary provisioning as a mean of smoothing earnings. While there is a large debate in literature about the incentives to discretionary LLP, there's no doubt that such a practice might hinder the true riskiness of the bank and distort market perceptions. On the same vein, discretionary provisioning may be regarded as a tool for optimizing bank's capital. The aim of the paper is to investigate the impact of the loan loss provisioning and other significant credit-risk exposure variables on the banks' cost of capital proxied by betas. The issue is of great interest at least for three reasons. The first is that international competition, differences in the economic cycle and various industrial arrangements might be accountable for differences the cost of capital across countries. The third reason is tightly related to the new proposed EU regulations referring to LLP and non-performing loans reporting. Our paper makes an important contribution in this field, as there is a lack of literature assessing the impact of LLP on the cost of capital. Our study has several implications, in particular considering the change of European regulation on non-performing exposures reporting



and forbearance practices, the adoption of Basel III capital accord and at light of regulators forcing banks to substantially reinforce their capital base. The paper is organized as follows. Section 2 defines the theoretical framework with reference to the determinants of betas. Section 3 describes sample, data and methodology. Section 4 summarizes the main results while section 5 discusses policy implications. Section 6 concludes.

# Determinants of beta and hypothesis development

Risk assessment and management are two of the major building blocks of finance in general and banking business in particular. In todays banking industry banks are required to strengthen their core capital base either for complying with regulatory requirements and as a result of supervisory pressures. These capital needs cast two main problems: that of the cost of rising new equity funds and that of the relative convenience of alternative sources of funds such as subordinated debt. The cost of capital and its determinants have been widely investigated either in corporate finance and bank specific literature. The idea that the cost of capital is to a large extent determined by the value that the stock market assigns to corporate's earnings is well established. By the way, the topic of bank's earnings quality is of great interest at light of accounting policies, in particular regarding the use pf loan loss provisions (LLPs) and incentives that banks face.

The topic of loan loss provisions (LLPs) has been broadly investigated in the literature, but a consensus on whether banks' managers use LLPs for income smoothing, capital management or with a signalling effect still lacks. The rationale for the income smoothing hypothesis lies in the fact that LLPs can be used to reduce the volatility of earnings. The early studies in the income smoothing literature date back to the end of the 1980s and the first contributions were those by Greenawalt and Sinkey (1988) and Ma (1988), who find evidence of earnings management in the U.S. banking industry. Greenawalt and Sinkey (1988) find that banks' managers effectively tend to use LLPs to reduce reported earnings through an increase in LLPs when income is high, while they tend to reduce LLPs when earnings are low. Ma (1988) finds a strong evidence of banks' managers using LLPs to reduce (raise) their earnings when the operating income is high (low). Wahlen (1994) tests the income smoothing hypothesis on a group of 106 commercial banks for the period 1977-1988 and finds that when future cash flows are expected to be positive, banks' managers increase LLPs. On the contrary, Wetmore and Brick (1994) find no evidence of income smoothing practices in the analysed sample of 82 US banks for the 1986-1990 period. Bhat (1996) tests the income smoothing hypothesis for 148 U.S. large banks in the period 1981-1991 and finds that income smoothing is typical of small, badly capitalized and with poor financial conditions banks.

According to the CAPM the cost of capital is function of a market risk premium according to the firm's beta where the latter is determined regressing stock returns on market returns. A growing body of literature develops alternative methods for determining betas against firm's fundamentals. The rationale laying behind fundamental betas is to use financial data in order to capture systematic risk. A plenty of contributions (among others see Rosenberg and McKibben, 1973; Fama and French, 2004; Chance, 1982; Dyl and Hoffmeister, 1986 and Gahlon and Gentry, 1982) advocates the merits of fundamental betas over historical betas arguing that the latter provide better indications of the sources of systematic risk. Prominent contributions find significant correlations between β's and pay out ratios, financial leverage and earnings yield volatility (Beaver, Kettler and Scholes, 1970); other studies account for a significant explanatory power asset size and profitability (Logue and Merville, 1972). Such studies, in particular, conclude for a negative relation



between profitability and systematic risk which is coherent with the idea that successful firms reduce the chance of systematic risk. While such an intuition might make sense in general, there are good reasons for arguing for an inverse relation in certain industries. Borde et al. (1994) found a positive relationship between profitability and systematic risk in insurance companies.

Our study is grounded on standard corporate finance theoretical models and bank specific research as well. We try to capture the influences of both systemic factors and firm specific variables on the cost of capital.

Although one could attempt to find the most significant macroeconomic variables for capturing the exposure of banks to systemic risk, almost all the possible measures are potentially subject to criticism and fallacies. For example, a useful proxy of pro-cyclical behaviour is given by the credit-to-GDP ratio. However, what the most appropriate GDP measure for an internationally active banking group is, could be a matter of debate. A feasible way to overcome this problems is determining banks' betas against an average sectorial beta and investigating which risk factors differentiate each bank from the sectorial average.

Several market-based and corporate-risk based variables might be assumed as determinants of betas and, in particular, to explain heterogeneity among banks. Market-based variables are related to trends in share prices. Aggressive stocks could be deemed as having higher sensitivity to systematic risk. Corporate-risk based variables could be grouped in several blocks of variables a plenty of which characteristic of banking business or, at least, have paramount implications for banks.

Dependent on the business model there are, then, a variety of variables capturing the exposure on credit risk. Good indicators of risk could be found in the balance sheet, income statement and other disclosures (i.e., disclosure on asset quality), such as ratios in different asset categories and margins. Relevant categories (Rosenberg and Perry, 1978; Di Biase and D'Apolito, 2012). Given the aim of our study, we are in particular interested in investigating betas against the quality of loans portfolio with a wide array of specifications regarding in particular the provisioning behaviour, the riskiness of loans and the impact on performances.

Managers have some discretion in provisioning and they use discretionary provisioning as a mean of income smoothing as recognised in literature. Some author argue (see Kanagaretnamet et al., 2005) that managers have the incentive to adjust banks' current performance to an average performance of a group of benchmark banks. Should this hold, we would expect pricess volatility of banking institutions converging toward sectorial volatility with differences being due to specific characteristics of each institutions, in particular business models. Arguably, while such form of "benchmarking" could make sense during normal times, it would prove more difficult for banks to track an average sectorial performance during crisis.

However, the pro-cyclical behaviour of banks casts the question of whether betas are actually responsive to performance measures or, rather, they are reactive to risk taking behaviour, which affects future losses and performances. LLPs plays a relevant role within this framework. Since they represent provisions set aside to cover expected losses (which represent the cost of lending) an underestimation of the expected losses during benign times will lead to an increase in profits and lending activity due to overconfidence.



Provisioning, together with capital requirements, has to do with the coverage of credit risk. Capital requirements themselves, which are designed to cover unexpected losses, are expected to have an impact on systematic risk and this might be particularly true during crisis given the shortage of reserves which is due to the pro-cyclical behaviour of provisioning. We develop the following hypothesis.

Hypothesis 1 – Betas are responsive to risk exposure and risk-coverage policies rather than current performances. Specifically, on loan loss provisioning behaviour.

Hypothesis 2 – The relation between bank's betas and sectorial betas weakens during crisis periods as the impact of bank's fundamentals is expected to increase and widely affect volatility.

Hypothesis 3 – In crisis times, capital adequacy turns to assume a significant role in driving betas due to increasing concerns as of bank soundness.

#### Data and methodology

Description of the sample and variables

Our study is based on a sample of 59 major European banking groups covering 10 countries. Our selection strategy is based on a total asset criteria. More precisely, for each country we select those groups above 10 billions in total assets. In order to avoid duplications we rely on consolidated financial information. We collect consolidated balance sheet data form the Bankscope database on a timeframe spanning the period 2005-2011. We have, therefore, a total of 413 observations. Table 1 summarizes our sample. It reports the number of banks for each country and the average total assets over the selected time span. Unfortunately, not all the banks in our sample are listed. On balance we have 38 listed banks for which betas are available.

TABLE 1 - THE SAMPLE

Country	Number of banks	Total assets 2011 (bn €)
Italy	12	197,120,225
Germany	7	560,840,714.3
Spain	11	233,697,909
Portugal	4	84,310,175
France	6	932,250,483.3
Netherland	2	1,005,446,500
Belgium	2	349,070,500
Austria	3	88,489,400
UK	9	824,654,733.3
Ireland	3	115,690,667
Total	59	

We, then, collect from the Bloomberg database the betas for each bank in our sample. Since we are interested in testing the impact on bank's betas of macro factors, we relied



on Bloomberg database to calculate sectorial betas. Instead of collecting banking sector betas we had to rely on the broader financial sector beta for each country under investigation. Such a simplification is due to the fact that we weren't able to find the narrower banking sector beta for all the countries in our sample. We get for each year the betas over a 2-year time horizon. Sectorial betas are derived from each country MSCI indexes.

We predict bank's betas across a set of basic variables describing various bank's profiles of performance and risk exposure and, namely, credit-risk exposure and risks associated with financial fragility. Contrary to other studies we employ also sectorial betas in our model (see discussion in the previous section). We also employ a set of control variables. Table 2 describes our variables together with the respective predicted sign of the relation with betas.

Profitability variables (ROE and PIMOPTA) are expected to be positively related to betas. We recall the discussion in the previous section for such a relation. For similar reasons we expect there should be a positive relation of RWATA, ECAPTE and IMPLGL to systematic risk and a negative relation of RILGL and RILIMPL to systematic risk. Higher risk taking behaviour, in fact, leads to higher risk weighted assets, higher economic capital and, potentially, a higher fraction of impaired loans on gross loans which is a measure of the magnitude of non-performing loans. In particular, a higher ECAPTE implies tensions in capital adequacy and, therefore, a greater exposure to risks. We expect a negative relation with RILGL and RILIMPL. The former, in particular, is a significant ratio for banks as it represents the so called coverage ratio measuring the ability of banks to absorb potential losses from non-performing loans. Related to the riskiness of the credit portfolio is the ratio of risk weighted assets on total assets for which we expect a positive relation with betas. By the way, such a relation has been already investigated (although in the opposite way) in other studies (Beltratti and Paladino, 2013).

TABLE 2 – DESCRIPTION OF THE VARIABLES

Category	Variable	Description	Predicted sign
Market-based risk	P/BV	Price-to-book value	(+)
	GL/TA	Ratio of net loans on total assets	(+)
	IMPL/GL	Ratio of impaired loans on gross loans	(+)
	LLP/GL	Ratio of loan impairment charges on gross loans	(-)
	RIL/GL	Ratio of reserves for impaired loans on gross loans	(-)
	RIL/IMPL	Ratio of reserves for impaired loans on impaired loans	(-)
Credit risk	LLP/IOL	Ratio of loan impairment charges on interest on loans	(+)
variables	LLP/PIMOP	Ratio of loan impairment charges on pre-impairment operative profit	(+)
	RIL/TE	Ratio of reserves for impaired loans on total equity	(-)
	ECAP/TE	Ratio of economic capital on total equity	(+)
	LLP/IMPL	Ratio of loan impairment charges on impaired loans	(-)
	RWA/TA	Ratio of risk weighted assets on total assets	(+)
Liquidity	DMMS/TE	Domestic money market an short term funds on total equity	(+)
Performance	ROE	Net income on total equity	(+)
variables	PIMOP/TA	Pre-impairment operative profit on total assets	(+)



We, finally, assume the Tobin-q (PBV), which underpin the convenience of an aggressive behaviour in issuing loans and lead us to predict a positive sign of the relation with betas, and the GLTA (assumed as a proxy of the business model) as main control variables. Finally, other control variables are the magnitude of LLP on pre-impairment operative profit (LLPPIMOP) and on interest on loans (LLPIOL).

# Descriptive statistics

Table 3 reports the main descriptive statistics (i.e. the mean and the coefficient of variation calculated as the ratio of mean on the standard deviation) for each variable and for each year under investigation.

Descriptive statistics reveal a plunge in PBV and profitability measures with high coefficients of variation. As regards credit-risk variables what emerges is an increase in loan impairment charges on gross loans over time, in particular during the peaks of the financial crisis (although with a reversion of the trend in the latest year of observations). However, not surprisingly, there emerges great variability especially in 2009 and 2010 unveiling a certain heterogeneity in provisioning behaviours across the European banking industry during the crisis. By contrast, the incidence of impairment charges on impaired loans shows a decreasing trend but whit higher coefficients of variation during pre-crisis years while variability has been declining starting with 2008. What is worth to be pointed out are the high levels of economic capital relative to total equity during the pre-crisis periods and the sharp decline in the ratio which reflects the efforts of the banking industry to strengthen capitalization. Concerns, then, arise looking at the ratio of impairment charges on the interests on loans which shows a sharp upward trend during the crisis years.

TABLE 3 – DESCRIPTIVE STATISTICS

		SECTB	P/BV	ROE	PIMOP/	DMMS/	GL/	IMPL	RIL/GL	RIL/	LLP/	LLP/	ECAP	LLP/	RWA/
		ETA			TA	TE	TA	/GL		IMPL	IOL	PIMO	/TE	IMPL	TA
												Р			
2005	Mean	1.033	322.2	12.93	0.010	0.671	0.57	0.02	0.018	1.47	0.07	0.208	2.44	0.544	0.006
			3	8			1	6		3	9		8		
	St.	0.096	2.377	0.506	0.443	0.263	0.32	1.08	0.786	1.25	0.72	1.002	1.77	3.431	0.369
	Dev.						7	8		8	7		3		
2006	Mean	1.041	336.7	15.72	0.010	0.663	0.56	0.02	0.016	1.35	0.06	0.185	2.24	0.167	0.005
			4	3			4	2		6	8		0		
	St.	0.111	2.532	0.426	0.427	0.269	0.35	0.94	0.695	1.09	0.66	0.623	1.85	6.604	0.387
	Dev.						7	4		0	6		0		
2007	Mean	1.144	349.7	14.22	0.010	0.651	0.57	0.02	0.016	1.09	0.06	0.181	2.10	0.270	0.006
			7	0			6	2		3	0		0		
	St.	0.054	2.506	0.427	0.491	0.264	0.35	0.89	0.647	0.85	0.76	0.793	1.96	1.165	0.389
	Dev.						4	1		7	8		2		
2008	Mean	1.179	238.6	2.194	0.008	0.641	0.58	0.02	0.018	0.69	0.10	4.900	2.32	0.254	0.005
			8				2	9		0	0		8		
	St.	0.125	2.511	10.86	0.756	0.285	0.35	0.56	0.548	0.48	0.64	6.612	1.78	0.786	0.367
	Dev.			1			6	2		0	2		6		
2009	Mean	1.281	165.4	-11.23	0.009	0.656	0.58	0.04	0.024	0.60	0.28	0.887	1.95	0.297	0.005
			9	5			1	7		7	6		3		
	St.	0.156	2.644	-8.301	0.540	0.250	0.33		0.772			5.157	1.81	0.962	0.391
	Dev.						9	6		7	7		0		
2010	Mean	1.440		-3.619	0.008	0.671			0.029			1.432		0.186	0.005
			2				7	6		2	2		5		



St.	0.148	2.520	-15.20	0.540	0.233	0.35	1.28	1.241	0.59	3.18	4.306	1.84	0.739	0.402
Dev.			7			0	1		4	9		5		
2011 Mean	1.352	5.85	-4.746	0.007	0.669	0.56	0.06	0.035	0.56	0.26	0.326	0.00	0.170	0.005
						6	8		9	1		4		
St.	0.118	3.25	-6.249	0.669	0.249	0.35	1.28	1.425	0.65	1.58	10.46	7.58	0.758	0.398
Dev.						0	1		7	6	1	0		
Total Mean	1.210	221.6	3.145	0.009	0.660	0.57	0.03	0.022	0.90	0.19	1.169	1.82	0.266	0.005
		2				4	8		1	3		7		
St.	0.171	2.853	14.44	0.554	0.258	0.34	1.27	1.202	1.15	3.22	10.88	2.02	3.080	0.388
Dev.			8			5	0		1	6	1	7		

The table reports the mean and the coefficient of variation (standard deviation/mean) of the variables for each year within the time span 2005-201



When testing the impact of both sectorial betas and loan quality on bank's betas a concern comes to the forefront, having to do with potential autocorrelation and endogneity. Endogeneity, in particular, occurs when the dependent variable while being responsive to an independent variable affects the latter itself. In our setting the candidate variable to produce endogeneity is SECTBETA. Another variable which arguably can display endogeneity is ROE. Higher performances are expected to affect betas but can be themselves affected by systematic risk, to the extent that higher risk exposure lead to higher costs of external funds. Finally, there could be exogeneity with risk weighted assets (see Beltratti and Paladino, 2013). To address some concerns we start with a static approach. We start by employing a GLS fixed effects panel data model for predicting our dependent variable. The general model we employ is as follows:

 $\beta i, t=\alpha+b1$  sectbetai, t+b2 llpgli, t+b3 rilimpli, t+b4 roei, t+b5 ecaptei, t+b6 rwatai, t+b7 llpimpli, t+b8 llpimopi, t+b9 dmm stei, t+b10 gltai, t+b11 rilgli, t+b12 llpioli, t+b13 pbvi, t+b14 pimoptai, t+b15 riltei, t+vi, t (1)

Where i denotes the i-th bank and t identifies time.

In order to investigate the impact of the crisis we then introduce a dummy (CRISIS) which take value 1 for years 2008-2011 and 0 for others. We test for the effects of the interaction of such variable with LLPGL (CRISIS\*LLPGL) and LLPPIMOP (CRISIS\*LLPPIMOP) in order to assess whether the crisis alters the riskiness of the loan portfolio and hurdles financial performances. We test, moreover, an interaction of CRISIS, LLPGL and LLPIMPL (CRISIS\*LLPGL\*LLPIMPL) together.

After that, we control for endogeneity and run an instrumental-variables regression model which is generally employed in econometrics for dealing with endogenous variables. In order to check for endogeneity we follow Wooldridge (2002) and estimate a fixed effect version of equation 1 that includes future values (i.e., we create leading variables) of some regressors (see next section). We, then, run an Instrumental Variable regression for dealing with endogeneity and check for differences with the GLS model.

#### Results

In a static approach we explain bank's betas in our sample and for the reference time frame on the basis of a set of variables including the sectorial betas and other variables capturing bank's fundamentals. Table 4 presents the results. Column 1 summarizes the results including our base variables. Column 2 adds the effect of financial fragility (DMMSTE); column 3 adds the effects of interactions while column 4 comprises control variables. We apply a GLS paned data model with fixed effects. Evidences are quite mixed. The first model shows a positive and significant relation between bank's betas and sectorial betas. The relation between betas and ROE is significant at 10% level however, unexpectedly, the sigh of the relation is negative, meaning that higher profitability reduces exposure to systematic risk. It is possible that the sign is strongly influenced by the trends during the crisis, characterized by sharp increases in betas and plunges in bank's profitability. Eventually, this could explain the "absorption" in betas of wider macro risks captured by the sectorial index. The relation of other regressors (in particular those



referring to loan quality) with betas is not significant and opposite to what expected implying that risks were not factored in balance sheets in the years preceding the crisis. The inclusion of DMMSTE do not alters significantly the outcomes of the model.

When we investigate the effects of impairment charges in the period 2008-2011 (see regression 3 in Table 4) we find that the sign of the coefficient CRISIS\*LLPGL turns negative, coherently with prediction, and significant at 5% level meaning that the market factors an improvement in systematic risk exposure as banks increase impairment charges on their loan portfolio. Surprisingly, however, the sign of RILIMPL turns to be positive. Finally, the sign of CRISIS\*LLPPIMOP is positive and significant at 1% level. The sign here is coherent with the negative sign attached to ROE. It is interesting to see, however, that LLPPIMOP turns to be negative and significant at 1% level. The interaction CRISIS\*LLPGL\*LLPIMPL is negatively related to beta. When introducing the control variables we find a positive and 5% significant relation between GLTA and betas implying that systematic risk is responsive to the business model and increases with the exposure of banks to credit risk. The Durbin-Watson statistic reveals the existence of autocorrelation.

We than, check whether and to what extent things change when dealing with autocorrelation and endogeneity. In table 5 we check for strict exogeneity running a fixed-effect version of equation 1 introducing leading values of sectorial betas, ROE and RWATA. While the former are not significant, return on equity and risk weighted assets are significant. We, therefore, reject strict exogeneity of such variables.

We employ an Instrumental variables regression for dealing with endogenous variables. Table 6 summarizes the results of our regressions, whose design is the same as in Table 4, on basis of an Instrumental Variables model estimation. The only difference is that we treat control variables as instrumental variables for endogenous ones.

As in the previous regression analysis, we find a significant impact of sectorial betas on bank's betas. Controlling for CRISIS variable, we find that the significance of sectorial betas is weakening a bit but remains strong while fundamental factors becomes significant. More in depth, we find significant differences when introducing the CRISIS variable compared to the basic case where the impact of crisis is not taken into account. In particular, in the basic case we find, as expected, that risk weighted assets on total asset have a positive relation with betas at a 5% significance level. We find, therefore, support to our hypothesis 1 that risk exposure plays a significant role in explaining systematic risk while performance measures do not play a significant role. Dealing with endogeneity bias, therefore, things change.

LLPGL, RILIMPL, LICHIMPL and LICHPIMOP enter the relation with the expected sign. However, nor loan loss provisions or reserves are significant in explaining systematic risk. Our results suggest that while risk exposure significantly and positively affects beta, risk-coverage policies (through loan loss provisions and reserves) do not have such a significant impact, arguably due to the fact that in good times loan losses are not a great concern. Bank's soundness measures have a negative relation as in the previous GLS model with betas. Again, however, the relation proves not to be significant.



# TABLE 4 – GLS REGRESSION MODEL

We include a dummy variable which is CRISIS taking value 1 for years comprised in the timeframe 2008-2011 and 0 otherwise.

ВЕТА	1	2	3	4
SECTBETA	.3961***	.4048	0.3613***	.3624
	(0.000)	(0.000)***	(0.000)	(0.001)***
LLPGL	.2260	4553	37.7819**	58.3510
	(0.958)	(0.915)	(0.004)	(0.002)***
RILIMPL	0160	0153	.0229	.0578
	(0.648)	(0.661)	(0.513)	(0.171)
ROE	1387*	1536*	1417*	0927
	(0.086)	(0.058)	(0.062)	(0.342)
ECAPTE	0078	0094	0071	0065
	(0.267)	(0.185)	(0.294)	(0.531)
RWATA	-12.6130	-13.8744	-7.8515	-30.2843
	(0.620)	(0.583)	(0.748)	(0.234)
LLPIMPL	0.1622	0.1723	.0429	1269
	(0.286)	(0.255)	(0.789)	(0.496)
LLPPIMOP	.0132	.0139	7815***	8323***
	(0.299)	(0.271)	(0.000)	(0.000)
DMMSTE		5304*	3633	2765
		(0.097)	(0.231)	(0.366)
CRISIS*LLPGL			-33.1056**	-41.963***
CDICIC*I I DDIMAOD			(0.008)	(0.002)
CRISIS*LLPPIMOP			.7893***	0.8329***
CRISIS*LLPGL*LLPIMPL			(0.000) -2.6745	(0.000) 3.9210
CRISIS*LLPGL*LLPIIVIPL			-2.6743 (0.754)	(0.667)
GLTA			(0.754)	0.8324
GLIA				(0.011)**
LLPIOL				4679
22, 102				(0.204)
PBV				00001
				(0.808)
PIMOPTA				-8.4166
				(0.188)
CONS	0.6148	.9625	.8493	.4765
	(0.001)	(0.001)	(0.001)	(0.102)
F-test (model)	6.56***	6.20***	7.67***	6.49***
R <sup>2</sup> within	0.2348	0.2471	0.3553	0.3964
R <sup>2</sup> between	0.2130	0.2597	0.1975	0.0017
R <sup>2</sup> overall				
	0.1661	0.2160	0.1703	0.0227
F-test (fixed effect)	21.37***	21.61***	24.75***	22.97***
Durbin Watson	0.340280	0.334382	0.362610	0.454636

In a CRISIS environment, fundamental factors gain relevance in explaining systematic risk as stated in our hypothesis 2 (column 3 in Table 6). Actually, traditional performance measures such as ROE again do not are significantly related with beta. Rather, we find that a significant role is played by loan loss provisions and, in particular, the ratios of provisions on gross loans and on pre-impairment operative profit.



#### TABLE 5 – TEST OF STRICT EXOGENEITY

The table below reports the results of running a GLS-fixed effect version of the panel model in equation 1 including future values of SECTBETA, ROE and RWTA.

BETA	1	2	3	4
SECTBETA	.3651***	.3095***	0.3903***	0.2851
	(0.000)	(0.002)	(0.000)	(0.004)***
LLPGL	8532	.7319	-2.3833	-3.9277
	(0.844)	(0.861)	(0.617)	(0.410)
RILIMPL	0010	0029	0141	0.0031
	(0.977)	(0.933)	(0.686)	(0.929)
ROE	1741	2128	2411	4278
	(0.040)**	(0.009)**	(0.156)	(0.018)**
ECAPTE	0104	0105	0120	0144
	(0.155)	(0.131)	(0.107)	(0.058)*
RWATA	-10.6646	-3.4936	-1.9554	9.7553
	(0.674)	(0.894)	(0.941)	(0.717)
LLPIMPL	1100	.1372	0.1894	0.1415
	(0.481)	(0.356)	(0.207)	(0.348)
LLPPIMOP	.0150	.0085	0.0136	.0101
	(0.238)	(0.507)	(0.275)	(0.425)
SECTBETA <sub>t+1</sub>	.1188			.0993
	(0.174)			(0.287)
ROE <sub>t+1</sub>		2390		1955
		(0.002)***		(0.009)**
RWATA <sub>t+1</sub>			-36.355	-30.2109
			(0.031)**	(0.071)*
CONS	.5146	.6890	.7798	.7311
	(0.011)	(0.000)	(0.000)	(0.001)
F-test (model)	6.06***	7.22***	6.18***	6.13***
R <sup>2</sup> within	0.2430	0.2850	0.2567	0.3031
R <sup>2</sup> between	0.1713	0.0893	0.2557	0.1247
R <sup>2</sup> overall	0.1491	0.0980	0.2234	0.1254

The significance of LLPGL and LLPPIMOP resembles the results we found with our GLS model. Like in table 5, LLPGL enters with a negative sign which, as noted, is contrary to the predicted sign. The change in sign could find a possible explanation in the backward-looking behaviour of banks when dealing with provisioning, relating provisions to problem loans. Underestimation of losses during benign times naturally lead to overcharging when non-performing loans increases and the magnitude of the effect would be particularly strong during a financial turmoil. Therefore, a positive impact of LLPGL might be due to the failure of provisioning policies as a tool of smoothing earnings volatility. Apparently, we do not find support to our hypothesis 3 predicting the significance of the ratio of capital requirement on total equity (ECAPTE) in a crisis environment. In that, capital adequacy obviously becomes a concern. Looking at p-values of Hansens's test, we do not reject the null hypothesis. Therefore, our test hints a proper specification.



#### TABLE 6 – INSTRUMENTAL VARIABLES REGRESSION

We include a dummy variable which is CRISIS taking value 1 for years comprised in the timeframe 2008-2011 and 0 otherwise.

BETA	1	2	3
BETA (L1)	.2454***	0.2370**	.0907
	(0.009)	(0.011)	(0.189)
SECTBETA	.3493***	0.3587***	.2548**
	(0.000)	(0.006)	(0.025)
LICHGL	5795	6434	46.371***
	(0.926)	(0.915)	(0.007)
RILIMPL	0585	0556	.0165
	(0.285)	(0.299)	(0.696)
ROE	3571	3277	2267
	(0.116)	(0.127)	(0.107)
ECAPTE	0104	0117	0110
DIAZATA	(0.283)	(0.220)	(0.139)
RWATA	310.922**	296.554**	168.795**
LICHIMPL	(0.033) 0945	(0.037) 0812	(0.043) 0740
LICITIVIFE	(0.663)	(0.702)	(0.677)
LICHPIMOP	0.0279	0.0284	1.3442***
LICITI INICI	(0.125)	(0.109)	(0.000)
DMMSTE	(5.22)	3493	3776
		(0.423)	(0.261)
CRISIS*LICHGL		, ,	-44.8393
			(0.009)***
CRISIS*LICHPIMOP			1.3650
			(0.000)***
CRISIS*LICHGL*LICHIMPL			-4.2799
			(0.658)
GLTA			
LICHIOL			
PBV			
PIMOPTA			
CONS	-1.2463	.4109	0.0122
55.15	(0.137)	(0.015)	(0.981)
Number of instruments	10	11	14
Number of observations	206	206	206
Number of groups	34	34	34
R <sup>2</sup> within	_	- -	0.1598
R <sup>2</sup> between	0.2545	0.2317	0.2456
R <sup>2</sup> overall	0.2067	0.1887	0.1512
Wald $\chi^2$	4435.44	4658.64	8201.43
Sargan Hansan (2/4)	(0.000)	(0.000)	(0.000)
Sargan Hansen χ <sup>2</sup> (1)	0.063	0.074	0.115
	(0.8020)	0.7854	0.7342

# Discussion and implications

Our analysis has several implications at light of the extant literature on bank's earning quality, managerial incentives and the current debate surrounding the soundness of the banking industry. We find a positive relation between betas and RWATA. Such a relation



has significant implications. It obviously implies the incentive to optimize risk exposure in order to economize in the cost of capital. At this regard, banks adopting an IRB approach for determining the regulatory capital might benefit of the advantages of a more precise alignment of regulatory capital to economic capital. Moreover, the relation we found between betas and RWATA might hinder an incentive for bank's managers to dampen the magnitude of risk on total assets should the bank have future growth opportunities to exploit. Moreover, we found a possible explanation to our finding in an underestimation of losses during benign conditions which would lead to overcharge provisioning in bed times. Should this hold banks would lack flexibility when growth opportunities would emerge. We feel, then, our results having significant implications as regards the impacts of different pieces of regulation and, namely, prudential capital adequacy regulation and accounting standards on managerial behaviours. Banking supervisors favours the use of accounting approaches based on conservatives valuations while IFRS counting standards are supportive to an incurred-loss approach. We found that the impact of LLPs proves to be significant in determining betas and, therefore, the cost of capital and such a relation is, arquably, particularly concerning during periods of distress.

Following the crisis supervisors have been requesting banks to increase their capital base. The latter are concerned with a potential increase in the weighted average cost of capital following a strengthening of the capital base due to higher levels of Tier 1 capital. supposedly more expensive than other sources of funds. While many theorists stress the fallacy of such an argument claiming that higher capital base reinforce bank's financial strength and, therefore, would imply a lowering of the cost of capital we put to the forefront another argument. We feel that our result of a positive and significant impact of loan loss provisioning in a crisis environment is an indirect argument in support of the income smoothing incentive. Rather to track an average benchmark-banks performance, such a behaviour should be targeted at dampening the volatility of betas and alleviating the impacts on the cost of capital during distress periods. Our results goes in favour of reducing the cyclicality of capital requirements through a system of dynamic provisioning such that experienced in Spain. In fact, where capital requirements are designed to cover unexpected losses, provisioning policies would be able to dampen the pro-cyclicality of the former. Finally, our results casts significant concerns as regards different forbearance behaviours and heterogeneous definitions of non-performing exposure across countries. As regards asset quality assessments different countries draw different lines between performing and non-performing loans. Apart hinder a proper assessment of asset quality by regulators, a lack of consistency in forbearance and non-performing loans definitions might have serious drawbacks for the market assessing the real soundness of banks across Europe. To the extent that such heterogeneity leads to biased systematic risk assessment it would imply distortions in accessing equity capital by banks, which is a major concern in the current environment of persisting uncertainty surrounding the banking industry.

#### Conclusions

Based on a sample of European banks we test for the determinants of bank's systematic risk in order to add evidence to extant literature and shad light into whether and to what extent betas respond to fundamentals. Our work is also another way to approach the issues relating to incentives to earnings management which have been widely analysed in literature. Our main findings are that bank's betas, apart being responsive to sectorial betas, are affected by the exposure to credit risk which could be measured as the ratio of risk weighted assets on total assets. Current performances are not significant in explaining



systematic risk. Fundamentals become a significant factor in crisis periods. In particular, the magnitude of loan loss provisions plays the most significant role. By contrast we do not find evidence of a significant relation of banks' soundness measures with betas. Our work has several implications, in particular at light of current debate on banks recapitalization and supervisors' efforts to strengthen bank resilience. Other relevant implications, in particular across European countries, are related to the efforts of the European Banking Authority to harmonize the regulatory framework of forbearance practices and non-performing loans definitions. There remains room for future research investigating the impact of new pieces of regulation on capital requirements (Basel III) and forbearance practices on systematic risk assessment.

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# Social media communities of practice: Reputation at risk

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#### Abstract

This paper relies on the study of side effects of Communities of Practice (CoP), namely on those activities that are potentially in conflict with the main and publicly declared objectives (statements) of the company to which the CoP's members belong. Communities of Practice (CoP) are seen as a good opportunity for organizations to improve their own performance. When people with a shared passion join a CoP, they are able to add value to organizations, for example by helping drive strategy, or by exploring new lines of business. When members of a CoP choose a Social Network Website as a "place" to host their meetings and to share their thoughts, the practice performed within a CoP becomes public and - at least potentially - a corporate reputation issue arises. By analyzing 165 pieces of content (posts) produced by 5.223 members across 15 weeks within a CoP hosted on Facebook and created by Italian employees of the French Company "Auchan", we show how a "good" organizational practice can affect negatively the reputation of a company<sup>8</sup>.

Key words: Community of Practice, Social Media, Reputation, Social Networking Sites, Retail

#### Introduction

Communities of Practice as a learning phenomenon

In recent years, a growing interest has been reserved form scholars to the processes of learning within organizations. The '80s and '90s, in particular, have been very prolific, with the parallel development of the two strands labeled as "Learning Organization" (Senge, 1997) and "Organizational Learning" (Ch Argyris & Schön, 1997; Huber, 1991). The first strand, of positivist matrix, considers the learning outcome in terms of change of the cognitive structures of the organization (Fabbri, 2012, p. 150). In the second perspective, which follows a socio-constructivist approach, learning in organizations is instead configured in terms of "change of a set of practices and meanings" in a specific context (Fabbri, 2012, p. 154).

Actually, the phenomenon of the CoP finds its theoretical antecedents already in the late '70s when, with the study of Bandura (1977), the idea of learning as social participation emerges. Bandura stresses the importance of observation of others' behavior for learning

<sup>&</sup>lt;sup>8</sup> This paper is the result of teamwork by the Authors. Nevertheless, Paragraph 1, 2 were written by F. Fraticelli, Paragraph 3 was written by F. Negri, Paragraph 4 was written by E. Cori. Corresponding author email: f.fraticelli@univpm.it.



processes and creates the basis for understanding that groups are the "locus" of learning within organizations. The concept of situated learning (Lave & Wenger, 1991) has a primary importance in Bandura's thought, and it is deeply linked to Vygotsky's (1980) theory that social interaction plays a fundamental role in the development of cognition and knowledge. Within this context – that is widely labeled as the field of "Social Learning Theory" (SLT), knowledge is basically the result of a social phenomenon and is placed in the context of our lived experience and participation in the world.

Bringing forward the SLT perspective, Wenger (1998) introduces some components which – according to him - are needed to spot social participation as a process of learning. These include the following (Wenger, 1998, p.5):

- Meaning: how we talk about our (changing) ability to experience our life and to give a meaning to the world individually and collectively.
- Practice: how we talk about the shared historical and social resources, frameworks, and perspectives that can sustain mutual engagement in action.
- Community: how we talk about the social environments in which our enterprises are defined as worth pursuing and our participation is recognizable as competence.
- dentity: how we talk about the learning process affects who we are and how we define our personal histories and our being within the context of our communities.

5)

With this categories in mind, and within the STL perspective, is therefore possible to define a Community of Practice as a "group of people regularly engaged in sharing and learning" (E. C. Wenger & Snyder, 2000) or, more specifically, as "groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an on going basis" (E. Wenger, McDermott, & Snyder, 2002, p. 7).

Since the learning is seen as the result of a routine, the term "Community of Practice" (CoP) has traditionally been linked to professional contexts. According to this perspective, Hildreth & Kimble define CoPs as "a group of professionals informally bound to one another through exposure to a common class of problems, common pursuit of solutions, and thereby themselves embodying a store of knowledge" (Hildreth, Kimble, & Wright, 2000, p. 3).

According to scholars, there are three elements that render a CoP. The first element is a well defined "domain", i.e. one or multiple themes that are discussed by people who join the community. When a domain is clearly defined, members are stimulated to actively participate the debate, and they share ideas with others (Amabile, 1997; Csikszentmihalyi, 1997; Polanyi & Sen, 2009). The second element is "the community", broadly defined as a number of people that share a finite social space and that are joint together by similar ideas and a shared sense of commitment (Bender & Kruger, 1982; Etzioni, 1995). The third element is "the practice", namely the specific knowledge that the community creates about the domain. The practice is made of the whole set of ideas, tools and information that are generated by members (C Argyris, Putnam, & Smith, 1987; Schön, 1983).



# Introducing Social Media CoPs (SMCoPs)

When members don't use physical interactions and meetings in order to develop their own practices, a "distributed" Community of Practice arises. There are several reasons why community's members use technology as the preferred way for communicate: sometimes they live in different countries, sometimes they are a huge number, sometimes they belong to different organizations or cultures. In all these cases, they choose not to use physical meetings as the main mode to connect with each other. For this reason, distributed CoP are also labeled as "virtual" CoP (Dede, 1996) or – equivalently - "online" CoP (Figallo, 1998; Kim, Oh, & Swaminathan, 2006; Palloff & Pratt, 1999; Preece, 2000).

Virtual Communities of Practice (VCoPs) don't necessarily exclude face-to-face meetings. They just rely primarily on ICT to connect their members, namely to let them to practice. The essence of a VCoPs therefore relies on the massive use of ICT. Within this broad definition, a wide range of media options is available. Phone, teleconference, newsgroup, on-line meeting space, intranet and extranet are just a few example of technological options that can build a VCoP (Barrett, Cappleman, Shoib, & Walsham, 2004). The analysis of the impact of ICT on a VCoP relies on two main dimensions: the degree of reliance on ICT, and the ICT availability (Dubé, Bourhis, & Jacob, 2006).

With refer to the first aspect, scholars pointed out that ICT allows VCoP members to leverage each other's knowledge in a timely fashion, without the constraints of time and space (McDermott, 2001; Von Krogh, 2002). While ICT must be predominant in order to label a CoP as "virtual", the degrees of ICT can really vary from a CoP to another. Some VCoPs' members can use ICT for the most of their life, and meet physically just sporadically. Some other VCoPs can decide to meet regularly and to delegate to ICT the execution of a reduced number of interactions.

Regarding the second aspect, the ICT availability, an array of "meeting opportunities" may lead to higher and richer participation and an overall better exchange of knowledge (Barrett et al., 2004). Some ICT platforms offer a synchronous experience, some other don't. Some virtual spaces let people to share documents, presentations and files. Some platforms enhance a discussion among members through chat or discussion forums. Within the "availability dimension", we therefore identify a continuum of options of VCoPs: at one side of the continuum there are CoPs with a low ICT variety, namely with one or a few software's functionality. At the other side there are CoPs with a wide variety of ICT, namely based on a rich software.

Beside the amount of technology in use, many of the remarks about CoPs as learning tools are still valid in a Virtual Community of Practice. In this case, even the "medium" is not neutral on the kind of interactions placed among members, many of the characteristics of the physical CoPs are just transliterated into a virtual space (like a website) where members can "meet" and share their practice.

At the same time, a hidden assumption regards the virtual CoPs: namely they rely on a restricted-access ICT platform. Beside the richness, variety and use of the underlying ICT software, all virtual CoPs usually analyzed by scholars are based on "closed" platforms, meaning that all the contents that are produced by the CoP's members are not available for the general public.

This assumption about "privacy" derives from the traditional vision on physical



communities of practice. According to scholars, CoPs are (closed) groups, that happen in a common (closed) place, which is inaccessible by (closed to) the general public.

When a virtual CoP choses a social network website, such as Facebook, as the grounding technology for its practice, some huge differences emerge than any other online CoP. In fact, in a social network website, the whole technological experience is built in order to encourage interactions among members and the sharing of their experiences and opinions with other users. In other terms, this particular kind of software platform enriches the "connective" function of ICT thanks to peculiar sharing, commenting and content creation practices that may not even exist outside of the social network website.

In this case, that we label as Social Media CoP (SMCoP), contents are (potentially) available to everyone. They can be shared, commented, discussed and modified by any other user in the same platform. Users within the social media website can exploit "fake" accounts in order to access the SMCoP. Some basic assumptions about the owner of the community-produced knowledge are revisited (some social network websites, such as Facebook, are the ultimate owners of every content produced with their ICT platform).

Given these characteristics of social network websites, with SMCoPs an intriguing issue arises. As previous literary review highlighted, virtual CoPs have been considered as different from physical ones. Their technological component is considered as a key factor that strongly affects members experience and their interactions. Scholars are indeed uncertain about virtual CoPs' effectiveness and ability to succeed, specially in comparison with physical CoPs, but VCoPs have been never seen as entities with side effects on other organizational dimensions, beside knowledge management. In other terms, virtual CoPs are still considered as a good way to foster organizational learning and their effectiveness is a "not negotiable evidence" that can be - at most - compared with alternatives in structure (physical versus virtual). Is this evidence still valid for Social Media CoPs? According to the above-mentioned literature, since they have a high reliance on ICT and a high ICT variability, they can be considered as a good knowledge-management tool, while is unclear how positive is their impact on other organizational dimensions, such as reputation.

This paper challenges this perspective by analyzing side effects of virtual CoPs, particularly on corporate reputation. With this objective in mind, the next section considers the main literature on corporate reputation and introduces the research question of this paper: we wonder if the phenomenon of SMCoPs has side effects on corporate reputation.

Social Media CoPs and reputation

By exploiting an informal environment, in a CoP people with a shared passion are able to add value to organizations, for example by helping drive strategy, or by exploring new lines of business. For this reason CoP is considered a good way to reinforce commitment among organization's members, to make the learning curve of new employees shorter (Brown & Duguid, 1991) and to unveil insights, stories and frustrations among employees (E. Lesser & Prusak, 1999). When an organization is able to manage this groups, by addressing its members' cognitive efforts into a unique flow, there is an increase of the social capital (E. L. Lesser & Storck, 2001). CoP are therefore viewed as a common context, in which relationships and connections are reinforced.

Because of the regular engage in sharing and learning of their members, CoP are



considered as "enhancer of organizational performance" (E. L. Lesser & Storck, 2001). In particular, CoP are seen as good tools for problem solving, seeking of experience or information's requesting, as well as discussion enhancing or knowledge mapping (E. Wenger, 2011). Thanks to the practice developed within communities with shared interests, organizations are suitable to become more and more performing, because of the decrease in the learning curve of new employees (Brown & Duguid, 1991), the speeding up of response to customer needs and inquiries, the reduction of unhelpful or unrequired rework and the generation of new ideas for products or services.

Given the above background regarding CoP, in the past 20 years a wide range of contributions, mostly empirical or analytical, has been developed in order to validate CoP as a "good" organizational practice. The shared perspective about Communities of Practice is that they should be encouraged and stimulated: more specifically, a significant fringe of the literature is supporting the idea that CoP can be "cultivated", namely helped to stay active and alive. According to this perspective, Community of Practices aren't suitable to be "strictly" addressed - i.e. being designed to achieve a specific objective - but they can be "energized", in order to maintain their learning capability (E. Wenger et al., 2002). In other words, organizations play a critical role in nurturing these communities (Brown & Duquid, 1996; E. C. Wenger & Snyder, 2000; E. Wenger et al., 2002).

Despite the extensive literature on the (positive) impact of CoPs on performance, a few words have been said about other organizational variables like reputation.

This approach appears plausible for offline or even virtual Community of Practice that are often "closed" and "private", but it could be less valid when employees decide to use Social Network Sites (SNSs) as a place to share their practices. SNSs, such as Facebook, have become a major place for conversation, and the expression of experiences, attitudes and opinions, for people and companies. In some cases, the software functionalities of SNSs can be used in order to enhance a CoPs activity. In this case, a tension could potentially arise among preserving authenticity of the Community (namely, "cultivating it") and maintaining the companies' reputation, since members' practices - in the form of pieces of content - are available to the general public.

Conversations in the Social Media sphere of the Internet exist, like it or not to the companies, and this can have a deep impact on the perception of the corporate stakeholders: in a research perspective, it's interesting to understand how an employee's Social Media Community of Practice affects the company reputation.

Corporate reputation has attracted interest from a wide range of academic disciplines (Chun, 2005; Fombrun & Riel, 1997):

- Accounting: reputation seen as an intangible asset and one that can or should be given financial worth;
- Economics: reputation viewed as traits or signals. Perception held of the organization by an organization's external stakeholders;
- Marketing: reputation viewed from the customer or end-user's perspective and concentrating on the manner in which reputations are formed;
- Organization: reputation viewed as the sense-making experiences of employees:
- Strategy: reputation viewed as assets and mobility barriers. Since reputations are based on perception, they are difficult to manage.

In this paper we choose to refer to "corporate identity and reputation" concepts introduced



by a number of contributions lying both on an organizational and on a marketing-oriented literature.

According to this perspective, corporate identity (Fombrun, 1996) describes the set of values and principles that employees and managers associate with a company. Whether widely shared or not, a corporate identity derives from a company's experiences, since it is founding its cumulative record of success and failures. Everyone, however, recognizes a company by its name and by the many presentations it makes to describe its actions, its plans, and intentions: namely we recognize a company by its corporate image. Sometimes a corporate image accurately mirrors the company's identity; more often than not, the image is distorted (a) as the company tries to manipulate its public through advertising and other forms of self-presentation, or (b) as rumors develop by the unofficial statements of employees to peers, analysts, and reporters (Fombrun, 1996).

Corporate reputation embodies the general estimation in which a company is held by employees, customers, suppliers, distributors, competitors and the public (Fombrun, 1996). The key point is that "reputation consists of perceptions – how others see you" (Fombrun, 1996). Customers expect reliability, investors and suppliers demand credibility, employees expect trustworthiness and communities expect responsibility. According to this perspective, it is useful to consider the "corporate reputation" as the summary view of the perceptions held by all relevant stakeholders (Chun, 2005), that is what customers, employees, suppliers, managers, creditors, media and communities believe the organization stands for, and the associations they make with it.

Within Fombrun's model, corporate reputation deals with the gap that arises when the corporate image differs from the identity that the company tries to build through official communication (Davies & Miles, 1998; Fombrun, 1996): identity (what the company is), desired identity (what the company says it is) and image (what the customers think it is)

DESIRED IDENTITY
What the company is

Gap
IDENTITY
What the customers think it is

FIGURE 1: KEY ELEMENTS OF CORPORATE REPUTATION

Source: Davis and Miles (1998)



When talking about retailing sector, the Fombrun's model can be "enriched", and reputation can be measured using relational (non product-related) elements too, as pointed out by Rapp et al. (2013). Among those, the social media usage can affect the relationship between retailers and their suppliers and customers: "the more favorable the brand reputation, the more likely it is the downstream counterpart will engage in a socially mediated conversation (Rapp, Beitelspacher, Grewal, & Hughes, 2013, p. 563)".

This perspective has been gradually implemented in the literature, and recent studies (Mandelli, n.d., 2011) started including online conversations in a more complex model of what influences reputation on the Internet. In particular, in order to evaluate the impact of these conversations on reputation, Mandelli (2010 and 2011) states that it is important to assess the way this online communication, in interaction with third party communications (particularly professional media coverage) and brand's communication, influences public opinion.

Building on the relevant literature in the field (Fombrun, 1996; Downing, 2001; Fombrun and Van Riel, 2003; Carroll and McCombs, 2003; Rindova, 2005), Mandelli (2011, p.3) proposes "... to conceptualize corporate reputation as the social and competitive standing of a company, measured as a macro-level public agenda, outcome of a communication process in which conversations (interactions) have a context and a contextualized role into larger and complex narratives. Only the observation and the analysis of the larger picture of narratives (which bridges otherwise distantiated conversations) allow to understand the larger sensemaking process. We should not confuse the process with the outcome, nor the contextualized interaction with the higher order sensemaking phenomena" (Figure 2).

TEXT INTERACTIONS

PERCEPTIONS

PUBLIC AGENDA

Media Text

Conversations

Brand
Communication
Texts

FIGURE 2: CONTENTS, INTERACTIONS, BRAND IMAGE AND REPUTATION

We agree with this theoretical perspective that considers the negative influence of

employees' rumors on corporate reputation as a "pathological" situation in a company's life. While many empirical cases, tend to consider the relationship between Social Media and reputation as a problematic situation that is proper of "crisis" (Mandelli & Mari, 2012),

Source: Adapted from Mandelli (2010)



in this paper we want instead to understand if and how a "physiological" situation of Social Media usage – namely a SMCoP – can (negatively) affect corporate's reputation. For this reason, in the next paragraphs we are going to propose a case in which an organizational practice which should have a positive impact on performance, could potentially increase the gap between the image and desired identity.

In other terms, we are looking for dark sides of a CoP, namely we are studying unexpected (and undesired) effects of CoP on corporate reputation.

#### Methodology

The Social Network Sites are new online contexts that have become a precious source of data for researchers that can find a lot of spontaneous and intense conversations about a wide variety of topics. Accordingly to the above-mentioned literature, we analysed a CoP developed "inside" a Social Network Site, namely a "social media CoP".

Content analysis is the technique often used to analyse transcripts of asynchronous. computer-mediated discussion groups in formal educational settings (De Wever, Schellens, Valcke, & Van Keer, 2006), and given the exploratory nature of this paper, we decided to use latent content analysis as main technique for data analysis. Literature review points out that content analysis using web data collected in a CoP can be carried out by professional and academic researchers with significant advantages (such as greater accuracy, timeliness, and lower cost compared to the offline alternative) in organizational and marketing research. As mentioned earlier, we preferred to use a latent content analysis with respect to a manifest one. We therefore run towards a process of identifying, coding, and categorizing the primary patterns in the data not just by counting the occurrence and frequency of specific words, but by searching for macro-topics within context, namely coding participants' intent in the context (Mayan, 2009). This specific technique is generally called "Thematic Analysis" (Guest, Macqueen, & Namey, 2012) and consists of the identification of "discourse patterns" through the assignment of "labels" that are able to summarize concepts and ideas represented by a post. We choose not to define labels in advance, but only during the reading of posts. We therefore analysed 165 pieces of content (posts) produced by 5.223 members of a social media CoP across 15 weeks. The content analysis produced 18 different codes, which were condensed in 2 content topics.

Moreover, in order to add meaning to the main categories that have been derived by the content analysis, and to determine the attitude of informants with respect to different topics, we introduced a sub-categorization built on "rating scales" that were based on the sentiment analysis of each content (Pang & Lee, 2005).

To ensure an ethical research approach, we identified ourselves in the Group, providing our credentials and subscribing the Group. Data collection is composed by: (1) dataset: the data directly traced from the computer-mediated communications of online community members, and (2) field notes: the data that we inscribed regarding observations of the community, its members, interactions and meanings.

The data analysed for the study are detailed in Table 1.



TABLE 1: THE DATA SET

Metric	Value
Group Members	5.223
Number of post analyzed	165
Vanity metrics (average for post)	21,9 like/post 4,6 comments/post 0,1 sharing/post
Timeline of conversations	28th, April, 2014 - 10th, August, 2014

Through the content analysis in a virtual CoP managed by employees of a major FMCG retailer, the paper aims to highlight:

- 1. What and How the CoP is sharing;
- 2. The potential reputational risk for the company due to CoP conversations.

The virtual CoP pinpointed is held on Facebook by the FMCG retailers' own employees in the form of "open group" with 5.223 members. The virtual CoP on Facebook matches the Kozinets' guidelines (2010), being: relevant, active, interactive, substantial, heterogeneous, and data-rich.

#### The Case - A retailer's Reputation

Auchan is a privately owned France-based grocery retailer: in 2013, Groupe Auchan operates in 15 countries (including Italy), employs 302.500 people, and generates € 62.1 in revenue including taxes for the chains. More than a market leader, Auchan is fundamentally a channel champion, with large hypermarkets representing ca. 80% of its global sales: according to Planet Retail's Report (2013), Auchan has emerged as one of the Top 3 global hypermarket operators. However, Auchan is not short on challenges due to increased competition in its home market, its wide exposure to crisis-hit southern Europe and aggressive expansion from local players in the BRIC countries. This is forcing the retailer to constantly innovate in order to remain one step ahead. Auchan set an ambitious long-term goal to achieve sales of EUR 100 billion by 2017. The original 2015 deadline was pushed back due to the economic downturn in Europe and eroding like-for-likes Its status as a privately-held company, owned by its founding family, also puts it in a largely unique position. Auchan has more freedom to pursue long-term visions, independent of the short-term demands of financial markets, which pays off when it comes to entering difficult markets or perfecting new store concepts.

The shared mission of the French retailer is: "To improve the purchasing power and the quality of life of the greatest number of customers, with responsible, professional, committed and respected employees" (source: www.groupe-auchan.com). This mission is based on three fundamental values: trust, sharing and progress. Groupe Auchan builds on its employees' capacity for business innovation by focusing on the sharing of power via the sharing of responsibility. This desire to encourage shop-floor initiative is reflected in the Group's decentralized structure, which gives significant autonomy to each subsidiary. In all of the businesses, independence, personal initiative, and involvement in the decision-making process are core concepts that the company instills in its employees throughout their careers. That accountability is central to professional development, and opens the doors of internal promotion to many employees (in the hypermarket branch, 32% of



positions are filled through internal promotion).

In the retailing sector, very often Facebook pages/Groups are opened and managed by customers and, sometimes are held by their own employees, as in the case of the Auchan Italian employee page which makes fun of their customers<sup>9</sup>. That social media CoP is the object of our research.

According to contributors, the vitality of a virtual CoP is a fundamental ingredient for making it successful and continuous over time. In order to assess the vitality of the analyzed CoP, we studied different engagement's metrics. These metrics revealed high members' participation frequency and spontaneity. During 15 weeks, there were about 1 post per day, and each post generated 21,9 likes as average (max: 142 - min: 0).

We based our study on the content analysis of 165 statements released within a Social Media CoP hosted on Facebook and composed of 5.223 Italian employees of a French retailer company, namely Auchan. Even if - according to its "formal domain" - this Community of Practice should "make fun of the Company's customers gaffe", we discovered that only 32,7% of contents are actually related to customers. Surprisingly, 23,0% of contents are focused on working conditions and conveys a negative opinion of members on this specific topic. The contents that are related to working conditions are the most engaging too, in terms of Like, comments and sharing activities. The most commented content is related to working conditions (52 comments). There is only one post related to customers' gaffe in the top-three most "social" contents (see Table 3).

Our content analysis seems to reveal a gap with the official mission declared by the company: "to improve the purchasing power and the quality of life of the greatest number of customers, with responsible, professional, committed and respected employees". According to thoughts shared inside the analyzed Social Media CoP, employees are not really satisfied with the working conditions and consider the management as not really interested in their needs.

By analyzing the contents shared among the social media CoP of Auchan's Italian employees, we highlighted 3 main content categories (2 plus "off topic" content) that are shared more often.

This eventually led to the production of the category list presented below: 3 broad categories, 18 subcategories and an operational definition of how comments are to be classified within each subcategory.

- a) Working conditions: A comment containing in reference to the Company asset or management, with especially attention to labor contracts, social mobility inside the Company, working anniversary and working/holidays days. Those posts have a % weight of 23,0% on the total, and show a very negative sentiment: only the 10,5% of them was positive, while the 23,7% is neutral and the 65,8 is negative (referring with the retailer reputation).
- b) Everyday Life posts: Any comment which provides a story that happened in store, referring with the retailer' routine activity (promotional activities, jokes about the retail sector in general, and so on) and posts describing customers' gaffe and oddity. Those posts have a % weight of 73,3% on the total, and shows a very

<sup>&</sup>lt;sup>9</sup> The group choose as title "Mai dire Auchan: tutte le papere dei nostri clienti" (tr: "Never say Auchan: all the gaffes of our customers") and it's available at <a href="https://www.facebook.com/groups/52321660589">https://www.facebook.com/groups/52321660589</a>.



neutral sentiment (referring with the retailer reputation): only the 2,5% of them was positive, while the 82,6% is neutral and the 14,9 is negative. That category contains the customers' gaffe posts: the majority of those are neutral.

c) Off Topic: A comment that has (deliberately or accidentally) been published multiple times, or a comment that doesn't match the aim of the page. Those posts have a % weight of 3,6% on the total, and a very low engagement rate.

As with Grounded Theory (Glaser and Strauss 1967), data analysis has been continued as long as new insights on important topical areas are still being generated, and it has produced the data showed in Table 2.

TABLE 2: CONTENT ANALYSIS. WHAT MEMBERS ARE SHARING

Category	Subcategory a. Percentage/category b. Percentage/all the posts	Engagement rate %	Sentiment %
Working Conditions	Opening anniversary a. 2,6 b. 0,6	0,1	Positive: 100 Negative: 0 Neutral: 0
	Corporate a. 15,8 b. 3,6	0,6	Positive: 16,7 Negative: 50,0 Neutral: 33,3
	Labour contract a. 5,3 b. 1,2	0,2	Positive: 0 Negative: 100 Neutral: 0
	Social Mobility a. 15,8 b. 3,6	0,1	Positive: 0 Negative: 50,0 Neutral: 50,0
	Working Sunday & Holidays a. 55,3 b. 12,7	s <b>0,9</b>	Positive: 0 Negative: 81,0 Neutral: 19,0
	Working anniversary a. 5,3 b. 1,2	1,5	Positive: 100 Negative: 0 Neutral: 0
Everyday Life	Assortment operations a. 3,3 b. 2,4	0,3	Positive: 0 Negative: 50,0 Neutral: 50,0
	Vacancy a. 0,8 b. 0,6	0,3	Positive: 0 Negative: 0 Neutral: 100
	Customers' gaffe a. 44,6 b. 32,7	0,6	Positive: 1,8 Negative: 5,6 Neutral: 92,6
	Generic Joke a. 0,8 b. 0,6	0,3	Positive: 0 Negative: 0 Neutral: 100



Greetings a. 7,4 b. 5,5	0,4	Positive: 0 Negative: 11,1 Neutral: 88,9
Joke about retail sector a. 19,0 b. 13,9	0,4	Positive: 0 Negative: 0 Neutral: 100
Merchandising operations a. 3,3 b. 2,4	0,4	Positive: 25,0 Negative: 0 Neutral: 75,0
Payment operations a. 1,7 b. 1,2	0,7	Positive: 0 Negative: 50,0 Neutral: 50,0
Promotion operations a. 8,3 b. 6,1	0,3	Positive: 10,0 Negative: 20,0 Neutral: 70,0
Pushing quotes a. 8,3 b. 6,1	0,2	Positive: 0 Negative: 60,0 Neutral: 40,0
Uniform a. 1,7 b. 1,2	0,7	Positive: 0 Negative: 100 Neutral: 0
Work shift a. 0,8 b. 0,6	0,7	Positive: 0 Negative: 100 Neutral: 0

While the majority of the post includes photos or videos, a good variety characterizes the "sociality" of the posts, namely the number of shares and comments made on each content. Table 3 describes the most social post, in terms of numbers of Like and Comments.

TABLE 3: THE MOST RELEVANT AND "SOCIAL" POSTS

	Like ranking		Comments ranking
(aver	age n° Like/post: 21,9)	(avera	ge n° Comments/post: 4,6)
POST	TOPIC	POST	TOPIC
04/05 MRR	Working Sunday & Holidays – 142 Like, 23 comments	20/07 JDG	Working Sunday & Holidays – 64 Like, 52 comments
21/06 EP*	Customers' gaffe – 137 Like, 28 comments	30/04 FM	Working Sunday & Holidays – 44 Like, 44 comments
20/07 MM	Working Sunday & Holidays – 99 Like, 2 comments	21/06 EP*	Customers' gaffe – 137 Like, 28 comments

\*They are the same post.

Focusing in more detail on the results, the research shows that:

- Even if the group is named "Never say Auchan", customers' gaffes/mistakes are an excuse to meet people working in the same sector/company.
- The majority of the post concerning the customers has a fun tone. On the other hand, the group permits to yell out about working conditions (especially about the working



Sunday/holiday: a very hot topic). Even if customers' gaffe weight for a 32,7% of the posts and the working condition posts represent only the 23,0% of all the post, are the letter kind to be more engaging in terms of like, comments and sharing.

- Colleagues are close each others, "The Company" is far from the store. The Group
  permits to discuss arguments that overcome the "single store dimension", reaching
  more wide topics and horizons: central management, competitors, and so on and so
  far. Very often the discussion through the comments highlights service level and retail
  practice with consistent differences across the Italian area.
- Most viral posts are the personal ones: the Group doesn't like general posts and off topics, but awards (with "Like" and comments) personal experience and stories, original photos.
- Among all the 74 commenters is possible to highlight some heavy contributors. The same 6 commenters wrote the 33,9% of the posts. Only 18 commenters signed the 61,0% of all the posts.
- The Community carries out a check role, becoming a sort of "digital support" for everyday working life in store: often people ask to other member to verify information or to share experience, about the retail sector in a special way. "Is that promotion real?" "Do you have my same problem managing coupons?" "Did you set up the merchandising area in a different way than us?". This community is likely to be a peer-to-peer direct line, created by employees for employees.
- Negative posts are more engaging than positive ones. The average engagement rate
  of negative posts in facts is about 0,5, with a maximum of 3,2: positive posts'
  engagement rate is about 0,8 on average but with a maximum of only 1,7.
- The lexicon used is very sectorial. All the members show that they are part of a restricted tight group: who works in Auchan, a grocery retailer.
- Referring to the reputational risk for the retailer, the most dangerous category is the "working conditions" topic that concentrates the majority of the negative tone posts. Employees are close to damage the reputation of the retailer, sharing their frustration about working hours and other labour aspects. So the problem, in term of reputation, is not also the possible reaction of customers (feeling as they were being laughed at), but the possible reaction of candidate employees. Considering the reputational risk of the retailer, two are the most hazardous message coming from that community to the Web: the retailer' employees are kidding customers is the first, and that Auchan is not a good place where to work is the second.

Finally, the small number of Off Topic posts (3,6% on the total) seems to be a proxy of the control level and the team spirit of the Facebook Group. Into the Group is not possible to find all the elements that seem to affect many Facebook pages, such as trolls, scamming, spamming and aggressive commenter hidden by anonymity. The tone is very friendly, even if the topic is controversial or unpleasant, like social mobility or crisis.

#### Concluding remarks

The main purpose of this paper has been to further our understanding of effects of virtual CoP on corporate reputation. By integrating the marketing perspective with the organizational theory, in order to propose an original research pattern, we gained both managerial and theoretical implications.

Unlike what usually happens in "traditional" (offline) CoP or in virtual CoP that are implemented on platforms with a restricted access, all the contents created by virtual CoP that are built within a Social Network website like Facebook (Social Media CoP) are



potentially visible from anyone. In this case, the practice performed by the members of a community could potentially negative affect the whole corporate reputation, as predicted by the Fombrun's model (2006) and other contributions (Mandelli, 2010).

This empirical evidence challenges the actual theoretical framework on HR management to introduce new dimensions still under-explored. With particular regard to reputation, scholars have to develop theoretical models that will be capable of explaining how the most widely used organizational practices impact on other organizational dimensions, primarily on reputation.

Given this premise, our case study shows the importance for management to constantly monitor the conversations that take place within a social media CoP. In this way, managers become more and more aware of the employees' needs and expectations, drawing on information that otherwise would remain "hidden". Under this point of view, we have shown that social media CoP can provide valuable information to refine not only a company's brand management policies and general agenda, but also a company's HR policies.

Under a theoretical point of view, we firstly introduced the concept of "Social Media CoP", intended as a virtual CoP that is hosted by a Social Network Website. Moreover, we see this case as a good opportunity to extend to Social Media CoP the corpus of knowledge referred to corporate reputation. In fact, through the access to a CoP hosted on a Social Network Site, employees themselves can highlight any discrepancies between the current way of organizing a company and the official statements of the company itself. Just as explained in the Fombrun's model and in following contributions, these factors can affect the image of the company that is made by customers and a wider range of stakeholders, including potential new employees.

This study constitutes a first step towards a deeper understanding of the relationship between the existence of a specific type of virtual community of practice created by the employees (namely a SMCoP) and the corporate reputation - both at an external level (customers perspective) and at an internal one (employees perspective). This research has clear limitations. We considered a short time-span. We have analysed a single CoP, in a specific sector. We do not have reinforced content analysis with a specific analysis of the gap reputation. Despite these limitations, in our view the existence of a social CoP among employees from a company can be considered a two-sided phenomenon. Indeed, the case that we analysed highlights the risks of a negative impact on corporate reputation and the image perceived by both customers and potential employees. We see this as a side effect that is hard to predict and manage: for this reason we believe that this research field can be very promising and we therefore encourage contributors to perform similar studies on a different number of industries and to a larger number of Social Media CoP.



#### APPENDIX ONE - Some examples of contents shared within a Social Media CoP

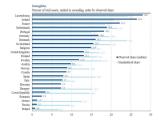
## FIGURE 3: ASKING ABOUT A PROMOTION THAT SEEMS TO BE A HOAX

# MAI DIRE AUCHAN: TUTTE LE PAPERE DEI NOSTRI CLI Q. 19 May Mi sa di bufala Carredour 6500 Carredour 6500 Carredour 6500 Carredour 6500 CLICCA QUI Esclusiva: Coupon da 1000C per il supermercato Cicca qui e partecipa GRATIS ITALIA Like - Comment - Share 19 May si 2 1-7 - Like Portenuto E diklio a completare che scompare il linkl!! 19 May si 2 2-7 - Like

# FIGURE 4: A WORKING CONDITION POST: THE WORKING SUNDAY AFFAIR, AND THE SYMBOLIC PROTEST OF AN EMPLOYEE



## FIGURE 5: A EVERYDAY LIFE POST (JOKE IN THE RETAIL SECTOR)



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# Exploring the challenges of measuring intangibles: The implementation of a balanced scorecard in an Italian company

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#### Abstract

Studies in the field of management accounting and intellectual capital have brought up some critical points that can be traced back to the measurement of intangibles. There are several different challenges inherent to the measurement process which include, among other things, aspects of the organisational culture, managers' limited experience in adopting and using non-financial indicators, as well as the difficulties which arise when the existing information system is called upon to provide new information aimed at ensuring the reliable measurement of intangibles. These challenges will be analysed through an interventionist case study, specifically, of an Italian company that has recently implemented a balanced scorecard. In particular, attention will be focused on those perspectives of the balanced scorecard that are most closely linked to intangibles, namely the customer perspective and the learning and growth perspectives. By analysing the implementation of the balanced scorecard and the problems that arise when indicators in the abovementioned perspectives have to be calculated, the article contributes to both the literature on intangibles, in terms of analysis of factors that can hinder or facilitate their measurement, and the literature on management accounting, in terms of exploration of the main limitations of balanced scorecard design and implementation.

Key words: intangibles, balanced scorecard, non-financial indicators, measurement of intangibles

#### Introduction

In recent years, the balanced scorecard (BSC) has received growing attention among scholars and practitioners (Kaplan and Norton, 1992; 1996; 2004; 2006; Davis and Albright, 2004; Agostino and Arnaboldi, 2012; Hoque, 2014). Its diffusion, from a theoretical and a practical standpoint, can be largely traced back to the fact that it allows a multidimensional measurement of company performance and, in so doing, the BSC overcomes some of the main limitations of traditional management control systems (Johnson and Kaplan, 1987; Lynch and Cross, 1991). In fact, thanks to its use, managers can control strategy implementation through the use of both financial and non-financial measures. Moreover, the fact that measures are linked through causal relationships allows managers to have a clear representation of the business they run and of the effects that their decisions can have on the company's performance (Kaplan and Norton, 2000). In light of this, BSC has been widely celebrated and its implementation has been studied in different contexts (Hoque, 2014). Scholars have paid particular attention to the design stage as well as to the effects that can result from its implementation. A plethora of studies have focused attention on the effects of BSC implementation on company financial performance, on organisational learning, on leadership and on many other aspects of organisations (Assiri et al., 2006; Agostino and Arnaboldi, 2012; Franco-Santos et al., 2012). Despite this, only a limited number of studies have paid attention to the role that the BSC can play with regard to the measurement of intellectual capital (IC) (Mouritsen et al., 2005; Wu, 2005; Bose and Thomas, 2007). In fact, Kaplan and Norton often refer in their works to the BSC as a useful tool for describing how intangible assets can contribute to



the improvement of financial performance (Kaplan and Norton, 2000). Moreover, they underline the fact that by measuring intangible assets through the BSC, it is possible to verify and to monitor their impact on a company's financial performance and, as a consequence, it is possible to manage those assets in order to improve performance. Nevertheless, only a limited number of contributions have analysed the role that the BSC can play with regard to IC measurement and the problems that can arise when a company decides to implement such a system (Petty and Guthrie, 2000; Chen et al., 2004). Such problems are related to the company's need to provide a reliable measurement of the intangible assets that are normally considered within some of the perspectives in which a BSC is set up.

The aim of this paper is to contribute to filling this gap. In order to achieve this, a case study of an Italian company that has recently implemented a BSC will be presented. In particular, the case study will be used to show some of the problems that arose when the BSC was implemented because they predominantly concerned the definition and the measurement of the key performance indicators within the customer and the learning and growth perspectives, i.e., those which are basically focused on intangible assets. More specifically, the role played by the existing information system and the information it provided will be analysed in order to show if and how it affected the measurement of some of the key performance indicators that were considered within the company's BSC.

The remainder of this paper is organised as follows. The next paragraph provides a brief literature review on the BSC and on the use of the BSC as a tool for measuring intangible assets. The third paragraph describes the research method used to carry out the case study as well as the theoretical approach adopted to interpret its findings. The fourth paragraph illustrates the company profile and the fifth and the sixth show both the design stage and the implementation stage, paying particular attention to the problems that arose when the BSC was implemented. Finally, some concluding remarks are presented together with the main limitations of the research.

#### Literature review

In recent years, the literature on the BSC has flourished (Franco-Santos et al., 2012; Hoque, 2014). From its introduction, BSC has attracted the attention of both academics and practitioners since it represents a useful multidimensional management control tool which is based on company strategy (Kaplan and Norton, 1996; Lawrie and Cobbold, 2004). Thanks to its use, in fact, managers obtain a set of measures which are focused on the key success factors the company strategy should be based on (Tayler, 2010). As a consequence, they can constantly control strategy implementation, its results and any changes in the external and the internal environment that could lead to a revision of the deliberate strategy. More specifically, the BSC allows a multidimensional measurement of the company's performance which can be seen from four different perspectives: the internal process perspective, the financial perspective, the customer perspective and the learning and growth perspective (Kaplan and Norton, 1992). Every perspective is monitored through the use of financial and non-financial indicators which permit a constant control over the results that the strategy implementation produces (Lynch and Cross, 1991; Kaplan and Norton, 1992; 1996). Moreover, the fact that measures and targets are linked through cause and effect relationships allows the BSC to represent the company's strategy and to support managers in revising it, if necessary.



In light of what has been said, literature contributions have underlined the effectiveness of the BSC as a strategic management tool, namely a tool which allows managers to represent and to manage company strategy (Ahn, 2001; Malina and Selto, 2001; Malmi, 2001; Chenhall, 2005; Tayler, 2010). Moreover they have also highlighted the consequences that can arise when a BSC is implemented. In particular, they have focused attention on the impact seen on people's behaviours and learning (in terms of strategic focus, coordination and motivation) (Sandstrom and Toivanen, 2002; Papalexandris et al., 2004; Jazayeri and Scapens, 2008) as well as on company performance which has been analysed both in financial and non-financial terms (Speckbacher et al., 2003; Braam and Nijssen, 2004; Davis and Albright, 2004). Empirical and theoretical studies have also brought out the main criticisms that are linked to the design and, in particular, to the use of a BSC. From a theoretical perspective, it has been argued that, in many cases, it could be difficult to connect measures and to identify causal relationships among the four perspectives (Nørreklit, 2000). In addition to this, it has been claimed that the existence of a time-lag between the cause and the effect can lead to an incorrect representation and measurement of the effects of strategic decisions (Nørreklit, 2000, 2003), Moreover, scholars have also stressed the fact that one of the main criticisms concerns the need to balance the four perspectives, given that companies could be more oriented towards identifying and using measures for some perspectives (like the financial ones) rather than other perspectives in which it could be more difficult to select measures, especially because they have a non-financial nature. This is largely due to companies' inexperience with measuring their performance through the use of these kinds of indicators and consequently, to the fact that the existing company information system is sometimes unable to support the BSC implementation through the provision of an information flow.

Thus, it is clear that the BSC has attracted the attention of a large number of scholars who have focused on its different features as well as on the different contexts in which it has been implemented. Despite this great interest, only a limited number of studies have focused on the contribution that the BSC can give to the measurement of intangible assets. Two of the four perspectives the BSC is based on (customer and learning and growth), in fact, are clearly focused on some of the most relevant intangibles the companies need to manage, namely relational capital and human capital. In light of this, a BSC could support the measurement of these intangible assets and it could also contribute to the visualisation and the measurement of their contribution to the achievement of financial results. Nevertheless, studies that have already analysed the relationship between the BSC and intellectual capital or, more precisely, the contribution that the former can give to the measurement of the latter are still scanty. In their paper, Mouritsen et al. (2005) compare the BSC and IC as performance management systems. Although they show that the BSC and IC are linked with regard to the contextual use of financial and non-financial performance, their contribution demonstrates that they clearly differ in terms of underpinning strategy which can deeply affect the way indicators are selected and interpreted. More specifically, within the BSC, indicators are put in a sequential structure of cause and effect because strategy is intended as a competitive strategy advantage, namely as a means to achieve a competitive advantage. As a consequence, indicators on intangibles need to be coherent and they have to show the contribution that intangibles can give to the financial performance. IC measurement, instead, is focused on the idea of a competency strategy. Consequently, indicators form a network around capabilities and they are not analysed in terms of cause and effects. Petty and Guthrie (2000) adopt a similar approach and they compare the BSC with some of the most relevant systems which have been studied to measure intellectual capital (like the Skandia value scheme, the intangible assets monitor and the intellectual capital account).



In their article, they underline the fact that the systems share the commonality of the use of financial and non-financial indicators, although the BSC is more oriented towards the measurement of customer capital, whereas other systems are more focused on human capital. In a similar vein, Chen et al. (2004) have pointed out that the BSC is not particularly focused on human capital and so, it overlooks the relevance of knowledge management as a critical success factor for the company. In some cases, the relevance of the BSC in measuring intellectual capital has been deeply debated (Marr and Adams, 2004). What has been argued, in particular, is that the BSC is based on a distinction between information capital and organisational capital, while many scholars have classified information capital as part of the broader category of organisational capital. Secondly, the BSC is focused only on one kind of relationship, the one with customers. It completely overlooks the relationships with other stakeholders which can be relevant when measuring the relational capital of a company.

Wu (2005), instead, adopts a different approach. In her article, in fact, she suggests an integration between the BSC and IC, rather than focusing on differences between them in measurement. Through a case study, carried out in a company in Taiwan, she shows that a BSC can direct the creation, formation and measurement of IC and it can also contribute to strengthening the reporting for IC. Bose and Thomas (2007) also underline that while the BSC can be a valid tool for measuring and managing intellectual capital, it needs to be continuously nurtured and amended to reflect environmental changes. Similarly, other scholars have suggested the use of a BSC approach to measure intellectual capital or knowledge management.

What results from this brief literature review is that scholars have already debated the possibility of adopting the BSC to measure intellectual capital. In their works, they have shed light on the main advantages of the BSC and they have also raised important criticisms regarding the adoption of the BSC. What, up to now, has been substantially neglected are the problems that can arise when a BSC is implemented, in terms of measures that need to be selected to monitor those perspectives in which intangibles are more greatly represented, namely the customer and the learning and growth ones. Problems linked to the use of non-financial measures, in particular, have been already analysed in the literature on both management accounting systems and intellectual capital (Vaivio, 2004; Catasús and Gröjer, 2006). Despite this, contributions have not focused on the causes of these effects. This is even more important with regard to a BSC in which financial and non-financial indicators are deeply integrated and need to be calculated in order to ensure the proper functioning of the tool. The aim of this paper is to contribute to filling this gap by analysing the case study of an Italian company that has recently implemented a BSC.

#### Research method

The analysis is carried out through an interventionist case study (Lukka, 2000; Jönsson and Lukka, 2007; Suomala and Yrjanainen, 2010). This research approach has been already used in the field of intellectual capital by many scholars (Dumay, 2010; Giuliani and Marasca, 2011; Chiucchi, 2013). The author, together with a team, was recently involved in a project concerning the design and the implementation of a BSC in an Italian company. Starting from September 2012, the team worked with the members of the company's top management to design the BSC. A series of meetings were held in which all the managers took part and afterwards, the team met frequently with the controller and the IS manager to calculate the indicators and to put the BSC into use. Given the active



role played by the author in the design and the implementation stages of the BSC, the case study will be analysed by adopting an interventionist approach. The author, in fact, was deeply involved in every stage of the BSC design and implementation, working within and with the company. Thanks to his direct participation, he had the chance to know peoples' feelings about the project and to make notes of the comments made and criticisms raised by the managers during the design stage. This stage, in particular, required several meetings which were organised as workshops. During these meetings, in fact, managers had the chance to exchange their opinions and ideas about the company's strategy and to discuss them in order to identify a set of key performance areas on the basis of which it would then be possible to identify a set of measures. Following the design stage, the implementation stage was carried out by the team and the controller. In this stage, particular attention was focused on the measurement of the indicators as well as on the adaptation of the existing information system; the latter was necessary to provide the useful information needed to measure the indicators that were not already available.

Given the part played by the author and the whole team during the design and implementation stages, they could be considered "experts" in this case (Jönsson and Lukka, 2007). In fact, as academics, they were perceived as people with a deep knowledge of the topic and their role was not that of direct participants in the BSC design. Rather, they guided the discussions among managers and fostered the convergence towards a common view of the company's strategy and of the best indicators that should be used to monitor it. Despite their role as "experts", the author and the rest of the team were not perceived as "outsiders". This, in fact, is one of the main limitations of the interventionist approach, since being perceived as outsiders could have led to a limitation of the information that people were willing to share with them (Lukka, 2000). This could have compromised the analysis, the understanding, and the interpretation of what happened on the research site. There are three primary reasons why this did not happen. First and foremost, the team was already well known by the group of managers that took part in the design stage, because they had already worked for the same firm when it decided to revise its management accounting system. Next, the BSC project had a very strong sponsorship by the CEO who felt very sure about its usefulness for the whole company and tried to convince all the people that were directly involved in the design stage of the same. Finally, the first meeting in which the BSC project was presented and introduced was opened by another academic who had a strong and lengthy professional relationship with the firm. As a consequence, he was perceived by people to be a trustworthy man and this inevitably favoured the acceptance of the project.

The main source of information was direct observation. During every meeting, in fact, the author and the other members of the team took notes of what people said and about their ideas and impressions. Moreover, several internal documents were analysed, as well as the existing information system and the information it provided at the moment in which the BSC was implemented within the organisation.

#### The company profile

Beta is an large-scale Italian retailer which distributes food and non-food products. Given the relevance that strategy has within the analysed company, in 2012 Beta decided to start a project aimed at designing and implementing a BSC. This was done in order to allow the CEO and top management to have a performance measurement system which would permit the constant supervision of company strategy and the critical success factors it was based on. In this perspective, the BSC was not originally thought of as a tool that could be



used to monitor intangible assets. Rather, it was conceived as a tool whose primary aim was to support top management's strategic decision making as well to control results that resulted from the implementation of the company's strategy.

The project was composed of two different stages. The first concerned the design of the BSC and it involved all the managers. In this first stage, the company strategy and the critical success factors were discussed and shared among the participants in order to define the BSC architecture, namely the perspectives in which it was organised as well as the key performance areas (KPA) that needed to be monitored through selected indicators. The second, instead, concerned the implementation of the BSC, namely the phase in which indicators had to be calculated and information had to be put into the software that would allow the management of the BSC; both the team and the controller were deeply involved in this stage.

#### The design stage of the BSC

During the first stage, several workshops were organised in order to introduce the BSC, to illustrate its distinctive features as well as the reasons for which it was going to be introduced within the company. All the top managers, about fifteen people, took part in this stage. During the first two meetings, the BSC was presented and people started to become familiar with some relatively new terms like "key performance areas", "critical success factors" or "key performance indicators". According to Kaplan and Norton (1992), this first stage is an educational phase in which the reasons why it is useful to implement a BSC and the way it should be designed must be clearly communicated to all the participants in the project. This allowed people to feel they were part of the project and to understand the contribution they were expected to give. Other meetings were dedicated to the definition of the key success factors and to determining the most relevant ones, namely those that would be monitored through selected indicators within the BSC. According to Kaplan and Norton (1992) the BSC was applied by taking into consideration the four traditional perspectives: customers, internal processes, financial, and learning and growth. For every perspective, a limited number of key performance areas were identified (no more than four key performance areas for every perspective). Focusing the attention on the customer and the learning and growth perspectives, the main key performance areas were the following:

CUSTOMER PERSPECTIVE
Customer satisfaction
Customer loyalty
Cooperation with local institutions

LEARNING AND GROWTH PERSPECTIVE HR competencies Internal communication Information system innovation

In the customer perspective what had to be measured, in terms of key performance areas, was the level of customer satisfaction, the level of customer loyalty and the cooperation with local institutions. Customer satisfaction and loyalty, in fact, were considered critical success factors for the company given that they were able to influence the financial performance and they represented relevant objectives for the company's strategy. At the



same time, the company needed to cultivate and to develop its relationship with local institutions because this was perceived as a way to better serve its customers.

In the learning and growth perspective the topmost KPA was the level of competencies of all the people that worked in the company. Another relevant need concerned the increase in the level of internal communication. During the meetings that led to the definitive version of the BSC, in fact, top managers frequently said that a higher degree of communication among people was necessary in order to generate more coordination among the human resources. Finally, the third KPA concerned innovation in the company's information system. In particular, what was actually perceived as relevant was the need to renovate the way the company shared information about itself and its services as well as the way it kept in contact with external stakeholders.

On the basis of the abovementioned key performance areas, indicators were selected. Originally, the team operated by identifying the indicators that would allow the best measurement of every performance area. More specifically, for customer satisfaction it was suggested that a customer satisfaction index be adopted because, at that moment, there was no such index calculated in the company. Customer loyalty was measured by taking into consideration the cards that were distributed to customers, allowing them to benefit from special discounts for card-holders. Through these cards it was possible to determine the number of customers that went to the supermarket at least once a week and to compare this number with the total number of customers. The quality and the relevance of the relationships with local institutions was measured through the number of projects that were activated every year with local institutions. In this first stage, the goal was to measure the company's ability to activate these relationships, rather than to look at their actual effectiveness.

With regard to the learning and growth perspective, the first performance area concerned the human resources competences. This was perceived as a particularly relevant question and the company clearly perceived the need to improve it at both the operational and the managerial level. Beta was already measuring the level of competencies of their human resources, nevertheless it also acknowledged that the existing system was not completely reliable. This was due to the fact that the system was based on an evaluation made by the top managers. In other words, managers were called to evaluate the level of competences of their subordinates and, at the same time, they had to evaluate themselves through a self-evaluation. Moreover, the scale that was used was not considered capable of reflecting the real level of human resources competencies since it led to a concentration in the middle level and to a consequent standardisation of the final results. Despite these limitations, the company decided to adopt the abovementioned indicator in order to measure the average level of competencies of its employees.

With regard to the second key performance area, instead, it was suggested by the team that an internal analysis be carried out in order to measure, through questionnaires, the degree of information sharing among people who worked within the company. This was the key performance area for which the team had more problems in terms of measurement since it was an area which was perceived as critical for people but it was not actually monitored by the company. Finally, with regard to the last key performance area, the information system innovation, the team proposed that the company should monitor both the number and the impact of every single innovation project that was carried out. In order to do it, three indicators were suggested: the number of innovation projects that were submitted to the top managers in order to be approved, the number of projects that had



been carried out by respecting the time planning and, finally, the impact of every single project in terms of benefits that it had been able to originate.

After having identified the abovementioned indicators, the design stage of the BSC was completed. The implementation stage, in fact, directly involved the team and the controller who were called to measure the indicators and to submit the final results to top management.

#### The implementation stage

The implementation stage directly involved the controller and the team. This stage is one of the most relevant and critical since it is during this stage that the BSC is put to work within the organisation. As a consequence, problems that are not normally noticed during the design can emerge and, in some cases, can lead to the failure of the BSC's implementation and use.

In Beta, these problems manifested themselves and impacted on the measurement of some of the indicators that were originally introduced within the designed BSC. The existing information system, in fact, had already produced some of the information that was necessary to calculate the indicators. Despite this, when the implementation stage started it was clear that it would be possible to calculate only a limited number of indicators, in particular those that were predominantly part of the financial and the internal process perspectives. With regard to these perspectives, in fact, the existing information system already provided information necessary to calculate the defined indicators. This leads to two considerations. The first is that Beta did not have an information system only based on financial information, like many other companies. This was demonstrated by the fact that, in addition to the traditional financial information, the existing system also supported the provision of other information which was substantially quantitative and nonfinancial. The second consideration is strictly linked to the first and it concerns the company's culture which proved to be open to the measurement of particular aspects which were not directly linked to the economic or financial results. In other words, Beta already perceived the importance of measuring quantitative and qualitative (and nonfinancial) aspects of its activity. What deserves to be underlined is that there was the tendency to adopt an internal perspective which was predominantly focused on the effectiveness and the efficiency of the internal process. Information about external variables, in fact, was obtained through ad-hoc reports which were provided by a specialised company. This orientation towards the provision of non-financial information on effectiveness and efficiency, as well as the provision of financial information allowed the team to easily calculate indicators that, during the design stage, had been included within the financial and the internal processes perspectives.

Something different happened when the team started measuring the indicators which were part of the customer and the learning and growth perspectives. In this case, in fact, it clearly emerged that a gap existed since the company was not used to measuring these peculiar aspects of its activity. It is also necessary to underline that there was a significant difference between the way the two perspectives were actually perceived. In fact, the customer perspective was really perceived as one of the most critical. The customer and, in particular, his/her satisfaction was a central theme for the company's strategy. This was also evident in the strategic guidelines that were displayed on the walls inside the company. In all of them, a huge emphasis was put on the customer and on customer satisfaction. Despite this, up to that moment, no particular indicators had been calculated



in order to analyse the relevance and the strength of the company's relationships with customers. When the implementation stage was about to start, the marketing department was carrying out a preliminary customer satisfaction survey. This analysis was only partially able to respond to the requests made by the team and the management accountant, since the BSC needed the measurement of customer satisfaction not only with regard to the professionalism of the workers and the economical aspect of the products. but also with regard to other items. Although the team tried to ask for an expansion of the existing questionnaire, the collection of data and information continued to be focused on the pre-determined topics; the reason given was that it would have been too difficult to change the questionnaire and the predisposition of the information system which had already been organised to collect and process the data on the basis of which the original questionnaire was structured. Minor problems arose with the other KPA which were introduced in the customer perspective. In this case, in fact, the existing information system already provided the information that was necessary to calculate the identified indicators. Although the latter were not already calculated, it would have been sufficient to extract data from the information system and to use it to calculate the indicators. So, in this case too, the existing information system played a relevant and active role in positively affecting measurement.

With regard to the learning and growth perspective, there were significant problems linked to measurement. As mentioned above, Beta already had a system through which it measured the competence level of the company's human resources. What was being questioned was the reliability of the information that was provided by that system. The HR manager clearly stated that it was necessary to modify it in future in order to make it more reliable and able to express the real level of competencies of the company's human resources. Despite this, during the meeting with the controller and the HR manager, it clearly emerged that they did not want to make any changes in the existing system, at least not at that moment. They suggested adopting the index that the system provided as a proxy for the degree of competencies, even though both of them were aware that it would not be sufficiently reliable. One of the reasons why this suggestion was put forward had to do primarily with the excessive time needed to adapt and make the existing system more reliable, thus requiring investments which, at that moment, the company could ill afford. Moreover, what was plain to see was the limited attention paid to this particular perspective of the BSC, as it was not considered to be as crucial as the other perspectives. Also, the controller very clearly pointed out and stressed the fact that problems would have emerged if a more accurate measurement of these items, linked to the level of the company's human resources, would have been suggested.

The situation was even more critical with regard to the other KPAs that were considered in the learning and growth perspective. In this case, in fact, the existing information system was not structured so as to provide information on the degree of information sharing or on the innovation of the information system and the subsequent impact. During the meetings, the team tried to underline the importance of providing this kind of information. When the BSC was designed, in fact, the group perceived these items as relevant for the future of the company. In other words, it played an important role in trying to convince the controller of the need to obtain this kind of information. Nevertheless, this was not viewed as a priority for the company. What was actually suggested by the controller was to avoid the measurement of the degree of information sharing and to adopt a proxy for the measurement of the information system innovation. Also in this case, what was proposed was to measure it through the number of new projects that were approved by top management without focusing on their impact. This indicator, in fact, was already available



given that the controller constantly updated the company's Intranet by publishing every new project, together with its main features, that was approved by top management. In other words, the information provided by the existing information system was used again as a proxy to measure one of the indicators that were part of the BSC.

In light of what has been said, the implementation stage of the BSC led to a partial measurement of the indicators that were defined during the design stage. In particular, what deserves to be underlined is that the perspective in which the company experienced the most difficulties were those in which intangible assets were more present. In this specific case, the role of the existing information system was fundamental, given that it affected the measurement as well as the way measures were obtained in the customer and the learning and growth perspectives. This will be discussed in the next section.

#### Discussion and conclusions

Previous contributions on both accounting and intangibles assets have often shown that one of the main reasons for which the measurement of intangibles is sometimes problematic is strictly linked to the fact that they are normally measured through the use of non-financial indicators (Ittner and Larcker, 2003; Vaivio, 2004; Catasús and Gröjer, 2006, Chiucchi, 2013). The fact that companies are more accustomed to measuring their performance through the use of financial indicators can represent an obstacle for the measurement of what cannot be expressed and represented, whether in qualitative or quantitative terms. Hence, criticisms normally pertain to a limited ability to calculate nonfinancial indicators. What has been analysed through the Beta case study is that problems can also arise when the company has a culture which is not strictly focused on the use of financial performance indicators alone. And the analysed case is even more significant since the tool which was implemented, the BSC, is a tool which leads the company to use both financial and non-financial indicators, in order to ensure an accurate measurement of the company's performance. In the case of Beta, in fact, the adoption of financial and nonfinancial indicators was guite frequent. Before the BSC implementation, the company already used both kind of indicators to monitor its performance or specific aspects of it. This indicates that the problems the company experienced during the implementation stage cannot only be linked to the limited familiarity with the use of non-financial indicators. Rather, they lie, firstly, in the limited culture and knowledge of intangibles and their role in company performance and, secondly, in the role played by the existing information system. When the company was called to measure indicators in the perspectives which were more closely linked to intangibles (like the customer and the learning and growth perspectives) a situation of "inertia" clearly emerged. It manifested itself through a tendency for postponing or avoiding the measurement which was justified by saying that there was not enough time to do it and that the resulting benefits would not be comparable to the costs that the company had to bear in order to adapt the existing information system to the new information needs. This kind of poor motivation inevitably shows that the limited knowledge of the importance and of the relevance that intangibles can have in affecting organisational performance can severely limit the attitude towards their measurement. And this is even more evident in the specific case of Beta since the company did not have any problem in calculating other indicators (in the financial and the internal process perspectives) although they were not already provided by the information system at the time of the BSC implementation.

In addition to this, what deserves to be underlined is the peculiar role played by the existing information system. In Beta, in fact, it was perceived and understood to be a tool



from which proxies of the defined indicators would be gathered, rather than a system that was called upon to provide the requested and new information. In other words, the implementation of the BSC and the consequent need to also monitor some of the most relevant intangibles assets through it did not represent sufficient motivation to change and/ or adapt the existing information system in order to make it able to provide the necessary (and new) information. It was not the "engine" that activated a revision of it. Rather, the existing system and the information it provided was assumed to be the source from which data would be collected; this data would then lead to the revision of the defined indicators. through the identification of proxies. It seems clear that in the case of the information system as well, a situation of "inertia" had emerged. However, this inertia had a considerable impact on the BSC and its implementation since it affected the measurement of intangibles by driving it towards the use of not entirely reliable information, as in the case of the human resources competences, or towards the reduction of the number of indicators through which relationships with customers and organisational learning and growth would be monitored, as in the case of the customer satisfaction index. In some cases, this inertia also led to the elimination of some indicators that were originally considered necessary to monitor some KPAs within the abovementioned perspectives. This effect, of course, is a sort of combination of effects which can be understood only in light of the limited culture on intangible assets and of the limited willingness to modify the existing information system.

The contributions made by this study are manyfold. First, and foremost, it contributes to the literature on management accounting by showing some of the difficulties that can arise when a BSC is implemented (Schneiderman, 1999; Neely and Bourne, 2000). In particular, it shows that there can be a divergence between what is designed and its implementation since there are many variables that can influence the concrete adoption of a BSC. Moreover, the study also contributes to the literature on intellectual capital (Vaivio, 2004; Catasús and Gröjer, 2006; Chiucchi, 2013). It demonstrates, in fact, that problems that are normally associated with the measurement of intangible assets are not always strictly linked to the limited use of non-financial information. Rather, there is a cultural question and it is necessary to fully understand the role that habits and routines, especially those that are linked to the existing information system, can play with regard to the measurement of intangible assets. Thus, an analysis of the information system can be instrumental in providing a full comprehension of the phenomenon of inertia that can be traced back to the design and the implementation of systems used to monitor intangible assets.

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## Competitive processes in tourism destinations: the role of intangible assets

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#### Abstract

Among the factors determining the attractiveness and competitiveness of a tourism destinations, the variety of available resources, both tangible and intangible, emerged as a driving factor. As a prerequisite, the correct perception of the contribution given by the different equipment of the destination is need, even though this results hard for what concerns intangibles. For this reason, the present research aims: 1) to identify the role of intangible assets in destination competitiveness; 2) to verify the degree of adoption of plans based on the development of intangible assets; 3) to observe the role played by the involvement of the various actors, and thus the activation of a network, in intangibles' development. Results, deriving from semi-structured interviews with the managers of 13 European Destination Cities, highlights the perception DMO managers about the role of intangible assets for destination competiteness, while the development of proper networks within the destination still lacks.

Key words: tourism destination, intangible asset, territory, reputation, human resources

#### Introduction

The theme of destination management, understood as the sum of the strategic, organisational and operational decisions by which the process of specifying, promoting and marketing a region's tourism goods and services is managed, in order to generate incoming tourism flows (Volgger & Pechlaner, 2014), is held to be crucial in terms of guaranteeing a tourism destination's growing levels of competitiveness.

In this conceptual framework, the central hypothesis of this paper is that the complex system of a tourism destination's material attractors is necessary but not in itself sufficient to guarantee competitiveness. The latter may be seen as a broader concept, linked to the activation of a combination of abilities and skills of an organisational and managerial character. By their very nature intangible, such skills enable first the conceptualisation and then the provision of an integrated range of goods and services, able to meet the real needs of their potential market (Enright & Newton 2004). This is shown by the presence of destinations which, despite having attractors of particular renown, are characterised by unsatisfactory levels of competitiveness.

For these reasons, the objectives of this paper are: 1) to identify the role of intangible assets in the pursuance of competitiveness by DMOs, as perceived by managers of the destinations themselves; 2) to verify the degree of adoption of plans based on the



development of intangible assets; 3) to observe the role played by the involvement of the various actors, and thus the activation of a network, in the development of planning focused on intangible assets.

Attractiveness and competitiveness of tourism destinations

A "tourism destination" may be considered as a group of products, services and attractions variously arranged in a geographically defined space that is recognised as a unified system via the tourist's experience of it (Franch, 2010, Laws et al., 2011). Seen in this way, it is clearly the fruit of a continuous, dynamic and shared process of construction, characterised by the involvement, in a network of mutual interdependence, of institutions, the destination's economic actors and the individual consumer (with his/her baggage of expectations and experiences), whose judgements and memories are influenced by the other consumers with whom he/she comes into contact.

The competitive success of a tourism destination thus depends on its ability to bring to market a package of functional, psycho-social, experiential and value-based benefits (Walls & Wang, 2011). It must guarantee the potential user a level of satisfaction at least equal to what other rival destinations are able to provide (Murphy et al., 2000) and it needs to be sustainable over time, taking account of economic, social and cultural aspects (Caroli, 2006).

This perspective redefines the terms of the relationship between the attractiveness and competitiveness of a tourism destination. Sometimes used inappropriately as synonyms, in fact the two terms express quite distinct concepts. Attractiveness refers to the aptitude of the destination – primarily based on its own resources, both specific and generic – for generating incoming flows of tourists who are potentially interested in the specific destination (Formica, & Uysal, 2006; Kim & Perdue, 2011; Gallarza et al., 2002; Van der Arka & Richards, 2006). Competitiveness (Ritchie & Crouch, 2000; Buhalis, 2000; Kozak, 2002; Dwyer & Kim, 2003; Ruhanen, 2007; Sainaghi, 2008) lies in the ability to guarantee, in a long-term perspective and on the basis of the incoming flows it generates, economic and social returns that are sustainable and in line with the expectations of both the regional system to which the destination belongs (internal stakeholders such as companies, institutions, citizens, etc.) and specific segments of the potential market (external stakeholders).

Attractiveness thus represents a fundamental precondition on which to build a destination's competitiveness, which however is a broader concept, closely connected to the socio-economic development of the area in which it is situated. In this sense, it can be argued that in order for a destination to be competitive, it has to activate a specific system of resources (mainly of a tangible nature) that is able to make it attractive, as well as a combination of abilities and skills (by definition intangible) of an organisational and managerial character (Fahy, 2002). Such skills must enable first the conceptualisation and then the provision of an integrated range of goods and services, able to meet the real needs of their potential market. Competitiveness is therefore the result of the interaction of a number of different factors that need to be recognised, interpreted and managed.

The international managerial literature has proposed various models for identifying and analysing the determinants of a destination's competitiveness (Bahar & Kozak, 2007; Ritchie & Crouch, 2000; Dwyer et al., 2004; Ruhanen, 2007). Schematically, these determinants – on whose constant interaction a destination's degree of competitiveness



depends – can be divided into three macro-categories:

- the variety of the specific and generic tourism resources that make up the destination and the combination of tourist facilities that serve to construct the range of goods and services it has to offer; these two factors represent the elements on which the destination's attractiveness to tourists is founded;
- the destination's management processes and activities; these reflect the destination's organisational and governance models and its development strategies, devised on the basis of the resources it can draw from and external factors (the behaviour of current demand and the main trends of potential demand);
- the perception of the DMO in terms of awareness, image and reputation.

This approach to the theme of a tourism destination's competitiveness highlights the need to create a framework of reference in which to identify the determinants in accordance with a systemic logic that gives due consideration to the interdependences. In this regard, it is worth pointing out that if the above-described macro-categories are viewed in terms of the tangible/intangible distinction, a large and particularly significant proportion of the determinants of a destination's competitiveness fall on the side of intangible assets. This appears to be the appropriate key in which to provide management with useful support for decision-making with a view to enhancing the competitiveness of their destination.

The intangible resources of tourism destinations: a proposed schematic theoretical representation

Intangibles have long been a key topic in the managerial literature, which has highlighted their significant contribution to the competitiveness of companies (Kramer et al., 2011; Axtle-Ortiz, 2013). It is important to understand that this refers not to individual firms but to a particular type of aggregation, i.e. tourism destinations, composed of a combination of products, services and attractors that are variously distributed in a specific regional space. The resources linked to a tourist destination product (tdp) thus require detailed study in order to identify the features of each of them and provide information to management that will be useful in planning strategic choices.

The tangible resources of a tdp can be classified as follows (Gomezelj & Mihalič, 2008; Cantone et al., 2007; Cracolici & Nijkamp, 2009): a) general resources, such as economic and social infrastructure and financial resources; b) specific resources, distinctive and otherwise, such as cultural and archaeological items, as well as landscape and natural heritage; c) tourist services, in various forms and at various levels, which physically enable the tourist to visit and stay in the area.

The identification of intangible resources with reference to a tdp requires: a) a review of the literature on intangibles, in order to grasp their features and specific properties; b) a fresh reading of the literature on tourism destinations and strategic area management. The features of intangible assets, as identified by the literature (Diefenbach, 2006; FitzPatrick et al., 2013; Fernandez et al., 2000), may be summarised as follows:

- They are non-physical, being resources that lack physical existence, linked to the behaviour of individuals belonging to the company;
- They are inimitable, which means they cannot be replicated in other contexts, although that does not exempt a company from the risks of losing them;



- They are untraceable, as a result of the difficulty in identifying them; on their quantity and strength depends the sustainability of the competitive advantage achievable (Funk, 2003);
- They are firm-specific, due to the special features that resources acquire as a result of being the fruit of a specific company history, not replicable in other contexts;
- They are irreplaceable, representing the company's deep identity, i.e. the sum of its values, aspirations, knowledge and fundamental motivation;
- Their value can increase as a result of use and the synergism between them. Indeed, the hypothesis on which this study is based is that intangible resources are not just the source of strategic behaviour, but also the result. For this reason the company should assess the wisdom of its choices not only on the basis of profitability, sales development and market share, but also, and perhaps especially, on the degree and intensity of the entropy of the resources generated (Johanson et al., 2001).

With reference to the relationship between intangible assets and tourism destinations, a holistic conceptualisation (Presenza et al., 2005) considers not only the assets of the territory and the various situations that exist within it, but also the potential for activating cooperative processes, which represent a key factor in the destinations' competitiveness. This dimension is particularly interesting in the characterisation of a destinations' intangible assets.

In these terms, we propose a theoretical scheme for analysing a destination's intangible assets, positing three macro-categories: "culture of the territory", "human resources", and "reputation".

The first of these, adapting the concept of enterprise culture, is understood as the combination of values and experiences that guide the behaviours of the actors who are involved in a destination and determine their ability to take strategic decisions. This construct is particularly relevant for complex organisations, such as aggregations of companies on a regional basis, for which the centrality of enterprise culture in the management of its internal and external relations is clear. Indeed, it should be remembered that aggregations of this kind are characterised by two levels of competitiveness: one concerns the competitive comparison between the destinations present on a global scale, while the other develops within the specific destination and concerns the companies that operate in it (Grangsjo, 2003).

The presence of this "culture of the territory" in the context of tourism destinations can be verified by observing: i) the sensitivity of local government to the theme of tourism (measurable with reference to its readiness to intervene); ii) the entrepreneurial dynamism of the tourism sector (assessed with reference to indicators of the survival/vitality of companies or their activities); iii) the attitude towards internal integration, understood as the willingness to undertake joint initiatives together with other actors who may be one's co-opetitors; iv) the diffusion of a culture of hospitality, an indicator of particular significance in an area with high tourism flows (the presence of info points, tourist guides, the favourable attitude of the local population); v) the presence of initiatives to promote and at the same time to safeguard the region, with a view to sustainability in both a social sense (protecting the area's traditional forms of production) and an environmental sense (in terms of safeguarding the territory itself), not forgetting sustainability in economic terms. Another intangible asset is "human resources", which include the managerial skills and abilities of local actors and stakeholders (thereby counting together all the human



resources of an area) and their knowledge, understood in all the senses cited in the literature, including the range of expectations that orient their actions (Castaldi, 2007).

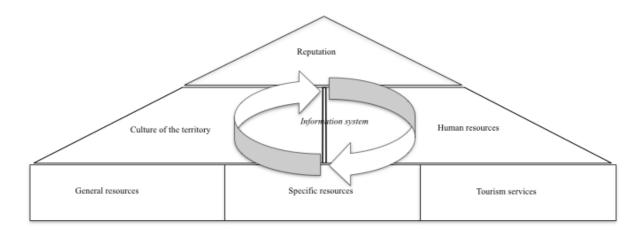
This intangible asset entails: i) the ability of the public administration to guide the growth of tourism in the area (measurable by verifying the presence of local government bodies in the local tourism systems and tourism districts, their role in the mechanisms of governance and the amount of resources allocated to the smooth running of the destinations themselves); ii) the readiness of entrepreneurs in the tourism sector and its associated production chains (food-processing, services, etc.) to supply a range of goods and services that are able to satisfy the expectations of consumers (the quality and differentiation of the accommodation structures present and the level of user satisfaction); iii) existing knowledge, together with the exploration, identification and integration of new knowledge; iv) organisational routines, i.e. consolidated approaches followed by companies that allow them to adapt to changes in the socio-economic context and their own internal configurations; v) scientific expertise, understood as the presence of universities and research centres that contribute to the genesis and spread of the abilities and skills that the region needs.

A resource of particular importance is the DMO's "reputation" among stakeholders (Deephouse, 2000). This arises from the ability of the destination's management to promote the region's identity, thereby generating an image that acquires renown and is sought after by the final user. Put briefly, this entails developing a "brand heritage" that will lead in turn to a brand loyalty that confers a long-term competitive advantage (Roberts & Dowling, 2002). The process that enables management to increase the area's positive reputation among potential visitors can be summarised as follows: a) identification and promotion of the destination's tangible assets (the starting point for tourism in the area); b) development of a distinct regional identity, which results from (among other things) the formation of a cognitive consonance between the specific features of this identity and the expectations of the potential user; c) promotion of the regional offer and the creation of an image that is consistent with the specific features of the area and is able to enhance its renown. It is clear that the value of this asset is partly determined by the characteristics of all the resources, both tangible and intangible, representing the entire heritage that the context of the destination is able to provide.

Worthy of specific mention is the information system, the support architecture for managerial choices, considered in the literature to be an intangible asset due to the contribution it makes to competitiveness via the management of information flows (Brondoni, 2004). While information as a resource has a natural tendency to circulate, an efficient information system can boost the potential of the intangible assets by ensuring the sharing of information on the entire range of resources. By way of example, consider the following types of information: information on the context and the specific sector of reference; information from the social interlocutors (customers and others) which serves to raise the area's credibility and image and thus its reputation among the stakeholders; internal information, which serves to improve and develop company organisation and thus organisational routines (Fig. 1).



Figure 1. Resources in a Tourism Destination (Elaboration by the Authors).



From the considerations set out thus far, it follows that as a resource, "Reputation" represents the end result of the management of the other resources, tangible and otherwise, as it is strongly influenced by their characteristics and the ways in which they are used. The ability to construct an area's reputation and promote it by means of suitable branding policies represents a strategic necessity for destinations in order for them to be able to effectively compete in the current context. It is in this way that the visibility necessary to be noticed is developed, thereby fuelling the processes that bring visitors to the area. This requires the ability to coordinate and monitor the various actors and stakeholders present, i.e. a strong and unified governance of all the resources, designed to ensure a differentiation that is useful for the destination's competitiveness.

#### Methods

The objectives set out in the premise required a qualitative investigation, conducted by means of semi-structured interviews with managers in European Destination Cities. Thirty such cities were selected, assessing the contribution of each of them to European tourism competitiveness (Hedrick-Wong & Choong, 2014). Thirteen destinations responded: Alicante, Amsterdam, Brussels, Daugavpils, Freiburg, Lancaster, Lisbon, Malaga, Nice, Novgorod, Prague, Stockholm, Vaduz, and Vienna.

The adoption of the qualitative approach is consistent with the objectives of the study and with the need to seek a broader understanding of the phenomenon, given the research's exploratory and inductive aims. A multiple case study approach (Stake, 2013; Gummesson, 2000) was chosen due to the nature of the object of study, i.e. Destination Cities' competitive processes, analysis of which, given that destinations are by their very nature complex, requires a considerable quantity of information. This method provides substantial clues to the nature of the phenomena (Easton, 2010; Dubois & Gadde, 2014), making it possible to draw up a more complete theoretical framework and to devise a theory that is "better grounded, more accurate, and more generalizable" (Eisenhardt & Graebner, 2007). Recently, Yin (2013) highlighted the advantages of the multiple case approach, particularly the large quantity of information that can be derived from the replication of the investigation and the contribution it can make to the development of theoretical corpora.

Conducting in-depth semi-structured interviews made it possible to ascertain the degree to



which the tangible and intangible resources identified in the proposed theoretical model help to generate a tourism destination's competitiveness, and the role played in this sense by the regional network. In addition, the interviewees were asked closed-response questions in which they were required to evaluate the role of certain items linked to the resources identified in the destination's competitiveness. Specifically, a five-point Likert scale was used (1 = minimum value; 5 = maximum value), the responses then being processed with descriptive statistical techniques.

#### The main results

The structure of governance of the Destination Cities studied is shown in the following table:

Table 1. Respondents' profile (Elaboration by the Authors)

Regional system of reference	Model of governance	Board of directors	Tourism trends in the last thre years	
Telefence	governance		Domestic	Foreign
Alicante	Public	BoD with concentrated powers	Stable	Stable
Amsterdam	Public/private	BoD with concentrated powers	Stable	Growth
Brussels	Public/private	Sole administrator	Growth	Growth
Daugavpils	Mainly public	BoD with shared powers	Growth	Growth
Freiburg	Public	Sole administrator	Growth	Growth
Lancaster	Public	BoD with concentrated powers	Stable	Stable
Lisbon	Public/private	BoD with concentrated powers	Shrinking	Growth
Nice	Public/private	BoD with concentrated powers	Stable	Growth
Novgorod	Public	Sole administrator	Growth	Growth
Praga	Public	BoD with concentrated powers	Growth	Growth
Stockholm	Public	BoD with concentrated powers	Growth	Growth
Vaduz	Public	BoD with shared powers	Growth	Growth
Vienna	Public	BoD with concentrated powers	Growth	Growth

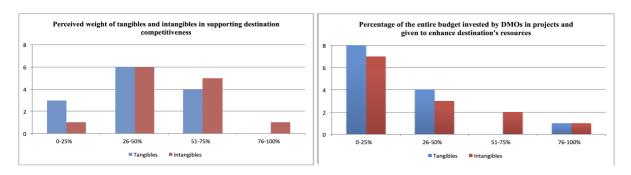
A reading of the data points to a prevalence of the public sector, flanked by private sector elements in only a few cases. Concerning the composition of the ruling boards, in three cases decisions are made by a single person and in 8 there is a board of directors with powers concentrated in a few hands. These are Destination Cities in which tourism is mainly historical and cultural, combined with other themes, above all business. The evolution of tourist flows in the last few years is positive, with rare exceptions in which there are no large variations, especially with domestic tourism.

The first step of the work, as stated in the premise, was to identify the role of intangible assets in the pursuance of the Destination Cities' competitiveness, as perceived by their managers. With four exceptions, the persons interviewed declared their greater focus on the potential of intangible assets in the creation of value.



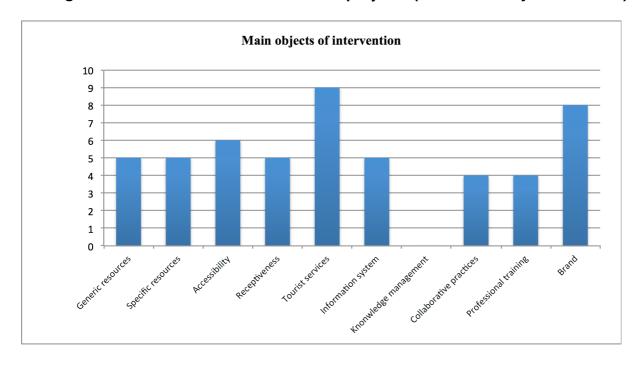
This difference of attention paid to the two macro-categories of resource is confirmed by the propensity to invest more in the enhancement of intangible resources, as emerges from the projects implemented in the last 5 years (Fig. 2). At the extremes, the Destination City of Stockholm has invested its entire budget in the last 5 years in the development of intangibles, while Vaduz has invested 90% of the total in tangible resources.

Figure 2. Tangibles and Intangibles for destination competitiveness: perceived role and budget invested (Elaboration by the Authors).



Consider that in the last 5 years, half of the Destination Cities studied have implemented more than 10 projects based on intangible assets, and of these, 3 have implemented more than 20. The priority areas of intervention of these projects are shown in the following graph (Fig. 3).

Figure 3. Areas of intervention in DMO projects (Elaboration by the Authors).



Greater attention is paid to the development of tourist services and the construction and promotion of the brand. In the opinion of the interviewees, competition between the "Cities" increasingly depends on the ability to build and promote one's reputation, which itself is the result of the growth of tourist services, accessibility and hospitality, enabling visitors to experience the destination's factors of attraction to the full.

The interview was accompanied by further questioning on the content of the two



categories of asset. Specifically, the interviewees were asked to assign, on a scale of 1 to 5, a value to a series of items that identify the different types of resource. Consider that the first 6 items by average value are linked to intangibles: Web marketing activities, Development/strengthening of the destination brand and Reputation of the destination are the most important items in terms of competitiveness, with values close to the maximum and a narrow standard deviation (Fig. 4).

The resource indicated as indispensable for the construction of a competitive DMO is "reputation", a form of competitiveness that is indissolubly linked to its fame and thus to a clear policy of differentiation. High levels of importance, over 4, were also attributed to the "culture of the territory" (among the items indicated as important were the hospitality of the residents and the possibility of obtaining information easily) and to human resources (especially knowledge of foreign languages, the ability to use technologies in the promotion and marketing of the product, and the ability to develop and implement destination development projects). The interviews conducted clearly showed that the activation of virtuous cycles requires generalised growth of the intangibles, ultimately manifested in the reputation (as argued previously) and the fame of the destination itself.

The last stage of the interview concerned the role of the activation of networks in the implementation of projects in the Destination Cities. What emerged in the projects of the observed destinations was a certain degree of attention to the construction of networks, regardless of the object of investment. The main interlocutors of the DMOs, which it will be remembered are characterised by a public or mainly public model of governance, are: entrepreneurs and institutions, including professional associations and trade unions; one level below in terms of frequency of contact are sector intermediaries and the management boards of the destination's main resources (museums, parks, etc.) (Fig. 4).

What emerges is a lower propensity to build networks for the implementation of projects linked to intangible resources than tangible ones. This is primarily due to the lack of response from three of the four Destination Cities, whose management attributes greater importance to material resources in the activation of competitive processes. A further consideration is that some regional actors play a marginal role in the development of intangibles, either because they feel they do not have the requisite skills or because the project itself leaves little room for their contribution.

#### Conclusions and managerial implications

The recognised importance of intangible resources in terms of the management of Destination Cities shows that a process of reading the context and strategic planning in tourism destinations has begun. However, it requires further efforts at awareness-raising in order to be completed. Indeed, for too long attention has been focused on increasing attractiveness, while neglecting the theme of competitiveness. As argued in the premise and highlighted in the literature, destination management processes must encompass all the potential resources, neglecting no factor that might generate some competitive advantage. This orientation is confirmed by data arising from projects mainly concerned with the development of intangible resources. The limited propensity to construct networks for the development of intangibles is indicative of a journey that has begun but still needs some effort in order to achieve optimisation. The development of a regional offer, regardless of the territory of reference and of the themes proposed, depends on the activation of networks designed to develop resources and hence competitiveness (Jackson & Murphy 2002, Novelli et al., 2006, Michael, 2007).



### Table 2. Items identifying DMO resources (Elaboration by the Authors).

	Mean	Stand. Dev.	Var.
Presence of forms of public/private collaboration	3,77	24,31	2,03
Presence of real services for companies	4,15	5,69	0,47
Hospitality of the residents	4,54	3,23	0,27
Presence of specific activities for the development of sustainable tourism	3,77	8,31	0,69
Willingness to listen of local stakeholders in the definition of development strategies for the destination	3,85	11,69	0,97
Presence of public incentives in favor of combinations of operators in the sector	3,08	12,92	1,08
Ability to attract foreign investment	3,85	13,69	1,14
Membership in International programs for the development (i.e. EU funding)	3,00	24,00	2,00
Activation of partnerships and/or network contracts between operators within the destination	3,92	10,92	0,91
Value for money in line with the expectations of different segments served	4,00	10,00	0,83
Enabling forms of cooperation with institutions and organizations external to the destination	3,77	6,31	0,53
Training activities dedicated to the tourist operators	3,54	9,23	0,77
Activation of degree courses devoted to tourism	3,69	4,77	0,40
Schedule of activities for continuous improvement of communication skills and technology of the tourist operators	3,54	11,23	0,94
Presence of appropriate professionals in tourism within the destination	4,15	7,69	0,64
Knowledge of foreign languages by the operators of the sector	4,54	3,23	0,27
Interventions for the protection and enhancement of the resources of the destination	4,00	8,00	0,67
Interventions for the protection and enhancement of the local productive fabric	3,46	5,23	0,44
Strengthening the experiential dimension in the use of the tourism product	3,88	14,08	1,17
Organizations of events that consolidate the identity of the destination	4,23	6,31	0,53
Web marketing activities	4,69	4,77	0,40
Development/Strengthening of the brand's destination	4,62	3,08	0,26
Organization of major events to increase the visibility of the destination	3,69	22,77	1,90
Destination awareness	4,69	4,77	0,40
Notification of awards on the quality of the destination	3,54	5,23	0,44
Enabling forms of monitoring of tourist satisfaction	4,23	8,31	0,69
Implementation of platforms of Social Customer Relationship Management (SCRM), to allow tourists to share their views, suggestions and opinions on the destination	3,77	10,31	0,86
Monitoring of the effectiveness of actions taken	3,69	10,77	0,90
Development of a platform to share information among all operators in the sector	3,31	4,77	0,40
Development of a plan for communication and promotion of the brand target	4,08	8,92	0,74
Use of new technologies for the promo commercialization of the destination on the 2.0 web channels	3,85	15,69	1,31
Monitoring of brand reputation online	3,62	11,08	0,92
Adoption of a system to monitoring the environmental sustainability of the actions taken	3,31	12,77	1,06
Presence of appropriate information structures in the area (f.e. info point, electronic equipment, etc.)	4,25	8,25	0,75



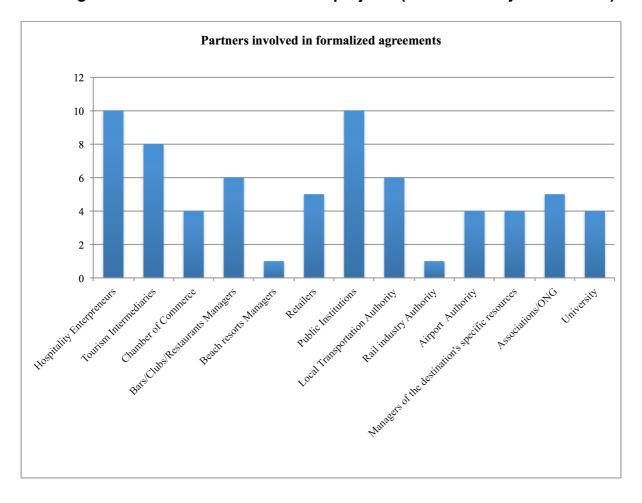


Figure 4. Partners involved in DMO projects (Elaboration by the Authors).

The study highlighted the special attention paid by the interviewees to the construction of reputation, showing their clear awareness of the fierce competition now seen between regions and destinations. In this context, a special role appears to be played by technology, specifically Web 2.0. Another finding is the importance of the so-called "culture of the territory" in the promotion of the places' specific features, which is an indispensable resource for enhancing the value of the experience from the visitor's perspective. To this end, it is important to consolidate the culture of hospitality on the part of both operators and the local population, for example by developing a platform for the sharing of information or conducting a series of awareness-raising campaigns on the themes of tourism and associated sectors. Lastly, the interviewees show clear awareness of the role played by human resources in the destination's competitiveness.

Concerning the study's third objective, it should be pointed out that the activation of growth processes linked to reputation, as with other resources, cannot proceed without the involvement of a destination's actors and stakeholders, especially considering that reputation, and the consequent fame, can only be the result of all the resources present and active in the region.

What needs to be emphasised, especially in consideration of the responses obtained, is that a DMO must, like a learning organization, be able to activate the multiple competencies present in the region from a systemic and continuous learning perspective. Indeed, the implementation of adequate knowledge management processes designed to



enhance the competencies of the destination's human resources would make it possible to improve the capacity both for proactive adaptation to the rapid shifts in the surrounding environment and for the generation of new knowledge. In this sense, the development of training programmes for the improvement of the communicative, technological and relational skills of DMO employees and for the growth of human capital in general could strengthen the culture of hospitality and result in a product that is ever closer to the expectations of the tourist.

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# Get Strategic Human Resource Management Really Strategic: Strategic HRM in Practice

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### **Abstract**

There are human resource managers who do not have strategic human resource management in their companies, and they are aware of that. There are human resource managers who do not have strategic human resource management in their companies but believe that they have it. There are human resource managers who do have strategic human resource management in their companies, and they are aware of that. But there are no human resource managers who would like to have strategic human resource management in their organizations, and however are not aware of that. This article is based on the authors' empirical research in two large companies. The primary objective of the article is to discuss strategic human resource management implications in practice.

### Introduction

The word "strategic" is an adjective that is used very frequently today especially in the theory and practice of business management. Unfortunately its meaning is not as clear as we could reasonably expect. For example, "strategic partner" would refer to a partner who is important. "Strategic resource" would have a similar meaning but "strategic investor" usually refers to the solvent investor who is interested in investment, and then "strategic planning" refers more or less to long-term planning. Of course, there is strategic management that refers to (what? Five stages of the process. In addition to all this there are strategic human resource management, strategic marketing, strategic finance, and similar expressions that refer to specific areas of business management. It is clear that this adjective has several meanings, such as, important, capable, long-term, and probably several others. A pertinent question to be asked, therefore is, which of these many meanings are related to human resource management systems and its role in the organization? It looks like the adjective "strategic" has brought a "new jungle" to the field of management. Because of that a short excursion to strategy, strategic planning, and strategic management becomes necessary.

Strategy, Strategic Planning, and Strategic Management

What is strategy? There is a wealth of literature dealing with the term strategy. There are seemingly innumerous strategy definitions as well. The term has been in frequent use since the early 1960s when strategic planning became very popular. Later strategic management, and in the 1980s, strategic human resource management came into use, both in theory and in the practice of business management. As our perspective is business management we should avoid such "folklore" definitions of strategy as ...the art of war..., movement of troops, and similar because business strategy has nothing to do with the armed forces. They have their own strategies. A widely known definition of strategy is... "the company's long-term plan for how it will balance its internal strengths and weaknesses with its external opportunities and threats to maintain a competitive advantage" (Dessler,



2003). For better understanding of the definition lets take a practical example: You are located somewhere in Central Europe and have a good reason (the objective) to get to Jerusalem. There are at least two ways to get there. One way is to move northward, the other to move southward. Both ways lead to Jerusalem but one of them is much longer. You choose the most appropriate way. It is your strategy how to get there. Strategy is the way, it is a choice. Because we are in the business area, strategy is the way in which the organization will survive in its competitive environment. It is the organization's sustainability plan.

Strategic planning in its very beginnings in the early 1960s involved managerial decisionmaking about the long-term goals of an organization. Strategic planning is a process that results in a strategic plan - the organization's long-term objective. Strategic plans have a strong external orientation because they deal with the long-term survival, value, and growth of the organization. Senior executives are responsible for the development and execution of the strategic plan that should include both effectiveness in terms of appropriate output, and efficiency in terms of a high ratio of outputs to inputs. Strategic planning emphasized a top-to-bottom approach to goal setting. This means that senior managers and specialized strategic planning units have got legitimate power to develop objectives for the organization as a whole, while lower-level managers and organizational units have no influence over the setting of goals or objectives but are merely recipients of tasks as delegated. The diversification of individual businesses, which formerly competed only in a single industry resulted in the broadening of business competition. Companies were now forced to compete in several industries at the same time. Strategic decision makers now required more specific information about different industries. In order to get that kind of information a specific approach was developed under the name the Growth/ Share matrix. This approach is in use till today under the name BCG (Boston Consulting Group) matrix. Based on four combinations of business growth (high or low) and relative competitive position (strong or weak) this matrix consists of four quadrants variously described as Stars, Cash Cows, Question Marks, and Dogs. The BCG matrix prescribed specific actions for businesses in each of these quadrants.

As a result of increasing complexity of businesses and globalization trends in the mid 1980s, a new term was introduced into the strategic planning process - strategic management. The idea was to involve managers from all parts of the organization in the formulation of strategic goals and strategy implementation. From this point of view, strategic management is an integration of strategic planning and management into one process. Classical scientific management is a process of planning, organizing, leading, and controlling. Strategic management is a process that includes the following five components:

- a. Internal assessment
- b. Environmental analysis
- c. Strategy formulation
- d. Strategy implementation, and
- e. Strategic control.

If strategy is the way in which the organization will survive in its competitive environment, it is clear then that both the internal assessment and external environmental analysis are necessary. The key role in the process of strategic management is played by SWOT Analysis. The acronym "SWOT" stands for strengths, weaknesses, opportunities, and threats. The first two mentioned are related to the analysis of the internal environment, and the last two deal with external environment analysis. Beardwell, J. and Claydon, T. (2010)



identified four approaches to strategy-making. These are the classical or rational-planning approach, the evolutionary approach, the processual approach, and finally the systemic approach.

The fourth component of the strategic management process – the strategy implementation - are the arrangements necessary to get strategy into practice. The process ends with strategic control which in reality means the feed-back information for decision-makers. Now, after a this short tour of strategy and strategic management we shall focus our attention on the issue of strategic human resource management.

# Strategic Human Resource Management

Strategic human resource (management) is a relatively new term both in theory and practice. First introduced in the mid 1980s it represents the present stage of human resource management evolution. The previous stages of human resource management evolution include Purchasing - focused on hiring and firing at best costs, Labor Relations negotiating with unions representing company employees, negotiating talent for least costs, Personnel - focused on administering employee issues such as benefits, compensation, and employee relations, tending towards a strong emphasis on control, and Human Resource – all represent primarily a name change with little substantive difference. regardless of the implication of a move toward being more strategic. According to Christensen, R. (2006), the strategic human resource role is managing organization and employee performance. Dessler (2003) believes that strategic human resource management is the linking of human resource management with strategic goals and objectives in order to improve business performance and develop organizational cultures that foster innovation and flexibility. In literature there are several more approaches to strategic human resource management. For example, Beardwell (2010) describes best fit (or contingency) school, the resource-based view of strategic human resource management, and best practice approach. Under these approaches there are several models of strategic human resource management. For example, the Contingency Approach includes the lifecycle model, the competitive advantage model, and the configurational model. The Best Practice approach describes the high commitment models. Because of the objective of this article - to make strategic human resource management really strategic - a detailed description of these approaches and models is not necessary The variety of theoretical approaches to strategic human resource management spreads a kind of confusion over the difference between human resource management and strategic human resource management. As a result of this, the term "old wine in new bottles" becomes popular among managers.

# Why is Strategic Human Resource Management Necessary?

Strategic human resource management comprises present activities to get future results. Strategic human resource management is necessary today because—the company is interested in future results. Strategic management is about differentiation and competitive advantage. There are several ways to get competitive advantage, for example, technology, price, quality of products, and other similar dimensions. Most of these dimensions are quite easily immitable, which means that they are not long-lasting competitive advantages. An exception could be competitive advantage through people—the human resource. Managers should be aware of the fact that competitive advantage through people is a process. It is not a simple result of hiring the appropriate people. It is a process of employee development. Why is this competitive advantage difficult to immitate? The



answer is simple – because the most important attribute of human resource as a competitive advantage is flexibility. It means the ability and readiness of people to meet not only today's but also tomorrow's high performance expectations. Not every human resource is a company's competitive advantage. Competitive advantage through people is a result of the human resource development process. Competitive advantage through people could be one of the results or an attribute of strategic human resource management. What are the others? The former understanding of strategic management was the involvement of all managers in formulation and accomplishment of the company's long-term objectives. Human resource managers are not, or are not supposed to be an exception. Because of this, human resource specialists should be involved in all stages of the strategic management process, starting with internal environment analysis and ending with strategic control.

# Strategic Human Resource Management and Competitive Advantage

A wealth of literature describes strategic human resource management from different points of view. For example, some authors believe that human resource activities are not, and never will be strategic because they are strictly operational (Dessler, 2003). (A second group of authors believes that the strategic role of human resource is to fit the company's strategy. Finally, there are authors who describe the strategic role of human resource in terms like "strategic partner of top management", vertical integration of activities, etc. Of course there always will be advocates of each of these views but there are two issues that we should take into account:

- Strategic management is about the company's competitiveness, and competitiveness directly depends on the company's employees.
- Beside finance, marketing and operations, human resource management is an integral part or sub-system of the company management system.

If competitiveness depends on the company employees, and competitiveness at the same time is the key strategic issue - can human resource then be a strictly operational issue? Probably not. The four sub-systems of the company management system are not independent entities. In concert with each other they represent a kind of "umbrella" over the company. If there is strategic management in the company - there should be strategic management of each of its integral parts. Based on these arguments it could be said that the strategic human resource management role in the company is twofold:

- To be an equal partner in the process of strategic management.
- To build up competitive advantage through people.

To become an equal partner in the process of strategic management means to take part in all stages of the process of strategic management. At the same time it does not mean just to get an invitation and to be accepted at the business table. There is a general agreement both in theory and practice that human resource activities are not the exclusive responsibility of human resource specialists and managers. Line managers should be involved in human resource activities as well. For example, compensation system design is a typical human resource specialist's responsibility. But compensation of each individual worker according to a compensation system is a line manager's responsibility. In order to be an equal partner in the strategic management process we should also look for greater involvement of human resource specialists in the company business activities. Human resource managers and specialists should understand business, the value the company



provides for customers, technology, industry, competitors, and other similar players. That is what makes for an equal partner in the process of strategic management. Human resource is invited to the table not because they are experts in strategy formulation or because they are simply experts in human resource. They are invited because they are experts in human resource who understand in addition the business the company is involved in. Knowledge of the business and human resource expertise is the expected contribution of human resource specialists in their role of company strategic decision-makers.

Building the company's competitive advantage through people is the second of the twofold role of strategic human resource management. If the classical role of personnel management was to get the appropriate number of people, the strategic human resource management role is the development of people to secure competitive advantage through people. A competitive advantage is an advantage over competitors gained by offering customers greater value. It is the ability of the company to offer such added value to its product that its competitors cannot. It is a set of capabilities or resources giving an organization an advantage that leads to higher company performance compared to its competitors. It is a question of differentiation from competitors. There are several ways to get competitive advantage, for example, price, greater benefits and services for customers, technology, quality of the products, but also the company's human resource.

The search for competitive advantage is one of the core activities of strategic management. The most complicated issue in searching of competitive advantage is its sustainability. For example, a company in the automotive industry introduced the ABS system (from German Antiblockiersystem) in its cars. Because of increased safety of cars with ABS system, the company gained competitive advantage through technology. But after a short period of time almost all companies in the automotive industry followed suit. The result – competitive advantage through technology was lost. It happens because competitive advantage through technology is usually easily imitable. The challenge for the company's strategy is to find a way of achieving a sustainable competitive advantage. That means a competitive advantage that cannot be easily imitable. Human resource is probably the only way to get relatively sustainable competitive advantage. This is because factors that differentiate the work force are focused on individuals. And there are no two identical individuals in the Universe. For example, organizational performance depends on the skills of employees, their motivation, and organizational support. A changing environment requires flexibility in all these three aspects. Gaining competitive advantage the second of the twofold role of strategic human resource through people as management means a system of employee development focused on flexibility of workforce skills, its motivation and organizational support. This could be very difficult to imitate simply because of the company organizational culture.

# **Empirical Research Results**

Questionnaire comparative empirical research was conducted in two large companies. One of them – company A - is a state-owned company, and the other – company B - a private company. Each of the companies have over two thousand employees. Total number of managers involved in this study:

Company A - 52 managers, 9 of that number are top managers (71,15 % questionnaire return ratio).

Company B - 31 managers, 6 of that number are top managers (77,41 % questionnaire return ratio).



There are both the line and staff managers involved in the research sample - including human resource managers. Managers were asked to answer questions focused on such issues as the following:

- Is there a strategy in (your) company?
- If yes, are the human resource managers and units involved in its structure?
- Are the human resource management specialists involved in strategy formulation or do they get just the tasks to fulfil?
- Is the human resource management system role in your organization traditional or that of a strategic partner of top management?
- Is the traditional role of human resource really changing or it is just "old wine in new bottles"?

There are a variety of answers that could be – and were - evaluated by such criteria like the particular company, management level, line and staff aspects, and other similar issues. The most important conclusions relating to strategic human resource management are the following:

- Nearly 40% of top managers in the company B were not quite sure if there was any kind of strategy in their organization.
- According to some answers "strategy is about an 80 page booklet that can be found in the general director's office".
- The great majority of managers, including top managers, believe that strategic human resource management means fulfilling the tasks the human resource managers have got from the company strategy.
- Human resource managers and specialists are not involved in strategy formulation.
- The majority of managers believe that human resource management activities are not exclusively only human resource managers' responsibility.

As both companies are successful in their particular field of operation, it is clear from the findings summarized above that managers in both companies take strategic management more or less as a formal issue that is not directly related to company success in the market. The situation in practice could differ from the that of the two companies in our study, but still the results show how just how far from each other strategic human resource management in practice and specific theoretical models of strategic human resource management can be. If the company is successful in the market, is a strategic human resource management approach then necessary at all? The answer "no" would be politically incorrect, and managers are aware of that.

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# **Creative Cities: urban experimental labs**

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#### Abstract

In post-industrial societies, culture is frequently deployed to innovate traditional sectors and their outputs through the injection of creativity and knowledge into the urban system. The term creative city identifies both the source of creativity and the many processes which use it as a driver of sustainable development and renewal. The dynamic between heritage resources and policies, both contributing to the development of creative cities, is place specific and has been largely neglected in the literature. In Italy it has usually produced traditional development models based on cultural tourism and there is a great deal of scepticism about levering the creative economy to innovate these models. The Alpine city of Trento is an experimental lab which is bucking the general trend, demonstrating traditional and new culture-led development paths and smart specializations - forms of hybridization between local heritage and the creative economy. The long, internally driven process of Trento's culture-led regeneration allowed a balanced integration of the preservation and enhancement of urban identity with the fostering of innovations coherent with the city's identity. However Trento cannot yet be considered a fully fledged creative city since it has still not articulated a shared, informed and organic development plan focused on culture-led processes.

### Introduction

The combination of the knowledge (Scott, 2010), the experience (Pine, Gilmore, 1999) and the digital economy (Zuboff, Maxmin, 2002; Rifkin, 2011) that shapes post-industrial societies, has made intangibles strategic assets for sustainable development and competitive advantage (Sedita, Paiola, 2009). Knowledge-based resources and symbolic components in production meet complex individual personalities and evolved motivations thereby transforming consumption into experience and learning patterns defined for, and with the participation of, the user. The Internet generation has defined a new capitalism that acts as a multiplier of these processes of dematerialization and symbolic value creation (Scott, 2000). This 'distributed capitalism' (Rifkin, 2011) allows organizations and individuals to interact widely, to participate in virtual communities (Funilkul, Chutimaskul, 2009) in which interactions are not mediated by the market alone (Potts et al, 2008) and to exchange and co-create knowledge-based resources on a global scale (Cooke, Buckley, 2008). The potential of technological infrastructure (its ubiquity and interactivity) combined with the non-rivalry and non-excludability of knowledge-based resources are increasingly blurring the boundaries between supply and demand in the co-creation of intangibles. The activities in which they assume economic and social value for individuals', enterprises' and places' growth and well-being are thus multiplying (Sacco, 2011; Sacco et al, 2013).

Culture is an intangible at the heart of both place regeneration and the competiveness of post-industrial societies, which are qualified as 'mixed economies of leisure, culture and creativity' (Mommas, 2004, p 507). It is a sector – the culture and creative industry (KEA, 2006); an immaterial input into non-cultural sectors and productive clusters – in which it plays a part in the sense making of products (Cooke, Lazzeretti, 2008; Paiola, Sedita, 2009; Sacco, Crociata, 2013) and brands (Papadopoulos, 2002; Cattaneo, Guerini, Uslenghi, 2006); a strategic component of the tourism industry (Richards, Wilson 2007,



Richards, Marques, 2012; Golinelli, 2012, Richards, 2011, 2013) and an artefact whose consumption increases human capital (Florida, 2002), social identity and cohesion (Tavano Blessi et al, 2012).

The common denominator of these culture-led development paths is the fact that culture can link creativity and knowledge – generated by people with a whole range of different interests and talents operating within particular socio-cultural contexts – with innovation (KEA, 2009) (Smart Specialization Platform, 2012). The processes that innovate traditional sectors through their hybridization with the creative economy have been dubbed smart specializations (Smart Specialization Platform, 2012) and creative tourism is an important manifestation of these (Richards, 2011, 2013; OECD, 2014). They inject creativity and knowledge into local economies and their outputs and promote structural change and new balances which allow emerging competitive scenarios to be dealt with more effectively (Dwyer et al, 2009). These culture-led innovations naturally occur most frequently in cities (Castells, 2004). The urban contexts which use such innovations as drivers of development and renewal have been identified as creative cities (Landry, Bianchini, 1995). Their development relies on the combining of urban heritage resources and traditions of production with innovative policy-making (Penco, 2012). However, this issue is place-specific and the literature has so far largely neglected it.

In Italy policies around culture and heritage resources usually generate development processes based on cultural tourism and there is a great deal of scepticism within institutions and on the part of city managers and operators about levering the creative economy to innovate traditional development models (CSES, 2010; Sacco, 2011). An examination of case studies which provide empirical evidence of both traditional and new ways in which culture catalyses urban regeneration and the place specific conditions influencing these processes, should close some of the gaps in the empirical analysis and literature on culture-led urban regeneration and inspire changes in the economic and social urban value chain. In this paper culture-led regeneration in the Alpine Italian city of Trento is analysed to this end. Trento, in fact, is one of the few small and medium-sized urban systems in Italy where innovative knowledge and technology based culture-led development paths and traditional cultural tourism go hand in hand. Trento is therefore an interesting experimental lab where good practice, the conditions that foster the creative economy at the urban level – and the inevitable challenges encountered – can be investigated.

The main questions driving the arguments and analyses of the paper are: how does the urban context affect the nature and scale of culture-led urban regeneration and the development of creative cities? What part does the public sector play in enhancing urban heritage resources or transforming them through policies and investments in new culture and knowledge-based activities? How can social and sectoral interactions and hybridizations between culture and creative activities, tourism and other sectors be encouraged in urban contexts? The first part of the paper discusses the nature and the factors of development of the creative city, identifying the sources of creativity and the many processes which use it as a driver of urban development and renewal; creative tourism is considered one of the main forms of smart specialization in a creative city. In the second part of the paper, these theoretical categories are used to analyse the features of the creative city and the forms of smart specialization evident in this case study, providing managerial implications for policy makers and practitioners along with new research perspectives on culture-led urban regeneration.



# Creative cities and their development factors

Cities stimulate creativity and knowledge – the intangibles that act as the most powerful drivers of development in post-industrial societies (Florida, 2002; Caroli, 2004; Castells, 2004; Hutton, 2009; Scott, 2010; Cappellin, Ferlaino, Rizzi, 2012). The term creative city (Landry, Bianchini, 1995) identifies both the source of creativity and the many processes which use it as a driver of urban development and renewal.

Urban concentrations of talent (Florida, 2002) and businesses specialized in the cultural and creative industries (Hall, 2000) are seen as creativity sources. Urban development driven by the creative class originates in individuals' education, talent and vocations, in combination with their occupations in knowledge-intensive sectors. Urban amenities play a strategic role in attracting the creative class to cities (Clark et al, 2002; Florida, 2002; Glaeser, 2005). However, the causal link between amenities, talents and urban development has never been proven rigorously and has, in fact, been widely questioned (Peck, 2005; Storper, Scott, 2009). An alternative theory is that innovations generated by the interaction between the cultural and creative industries and other economic activities result in urban development (KEA, 2009; Scott, 2006).

The creativity that arises from these sources produces knowledge and technologyintensive outputs (Trullen, Boix, 2002) and artefacts that meet the highly evolved experiential needs of contemporary societies (Hubbard, 2006). These processes define the creative city as - in the first case - a knowledge city and - in the second - a consumer city (Penco, 2012). In the knowledge city, knowledge and technology-intensive businesses develop synergies and interdependencies with other companies involved in the knowledge supply chain at local and global levels (including research and higher education centres, universities, public institutions) (Castells, 2004). In the consumer city, the supply of advanced immaterial products and leisure opportunities from cultural institutions, organizations and associations, and from the cultural and creative industries and service sector, results from the dense urban population and the flexibility of post-industrial socioeconomic structures. Consumer cities are, in fact, also called cities of leisure and entertainment machines (Clark et al, 2002). Creative cities - in various ways and to varying degrees - are both consumer and knowledge cities (Penco, 2012), since they provide the right conditions for sustainable urban development (Sacco, 2011). An exclusively consumer city is likely to impoverish high value added urban services, to attract less investment and talent and to undermine the integrity of the cultural heritage itself due to the intensity of its use (e.g. tourist pressure), thus affecting the quality of cultural consumption and of urban life in general.

The development of creative cities is place specific and relies on the combining of urban heritage resources and traditions of production with innovative policy-making (Penco, 2012). A city's history, cultural capital and creative institutions define the natural endowment that enables it to pursue culture-led development paths (Scott, 2006). Its history bequeaths both a tangible and an intangible cultural heritage – artistic-cultural and professional-productive (Hall, 2004). Over time, networks of interdependencies and the trade within and between urban communities of creative workers produce a cultural capital, one which facilitates knowledge sharing and stimulates creativity (Inkpen, Tsang, 2005). The scientific and cultural institutions based in the city provide both formal and informal spaces for social interaction (Hutton, 2009; Cohendet, Grandadama, Simon, 2010; Tavano Blessi et al, 2012) and host and disseminate these creative processes. Their training and educational programs and their involvement in research and knowledge



transfer foster the production and reproduction of creative urban practices and the development of other scientific and cultural organizations and cultural and creative sectors (Leslie, Rantisi, 2006).

Beginning with these local heritage resources, urban regeneration policies enhance the strengths of existing urban development models, overcome their weaknesses and equip them to face the challenges of emerging scenarios (Dwyer et al, 2009). Many urban regeneration policies are aimed at transforming the urban genetic code because the absence of a sufficiently strong cultural heritage is one of the main problems faced by such cities. The public sector can promote the development of knowledge cities by encouraging research, innovation and the establishment of knowledge and technology-intensive enterprises/organizations, and investing in knowledge centres and university buildings and the development of networks with international research hubs. Interventions to create consumer cities include: tourism and cultural policies, the development of innovative and sustainable residential complexes, the renovation of disused industrial areas and their use as cultural spaces, investment in iconic architectural buildings that combine research, educational and cultural functions, service digitalization, the organization of large events, the connection between the tourism industry and the cultural and creative industries, the upgrading of amenities and the creation of cultural districts or clusters.

# Creative tourism as a smart specialization

Creative tourism (Richards, 2011, 2013) is a form of smart specialization which integrates and hybridizes creative content and tourism, thus fostering the dual identities of consumer and knowledge city. Creative tourism was first defined by Richards and Raymond (2000, p. 18) as 'tourism which offers visitors the opportunity to develop their creative potential through active participation in courses and learning experiences which are characteristic of the holiday destination where they are undertaken'. This advanced form of cultural tourism builds on contemporary creativity, innovation and intangible content to meet local communities' needs for cultural and creative expression and contemporary visitors' demands for meaning and authentic experience (OECD, 2014). The co-creation of meanings and tourist experiences through the involvement of visitors in the daily life and culture of a place allows people to enhance their skills, develop their creative potential, express their identity and pursue their own welfare (D'Auria, 2009). This idea is embodied in experiences that allow the visitor to 'meet the locals' or 'live like a local'. Creative tourism is therefore increasingly conceived as a relationship between people who are seeking more engaging and active creative experiences; however, it can also involve less active forms of creativity, such as 'taster' experiences, which are now enjoyed by much larger numbers of visitors (Richards, 2011).

This innovative form of tourism is still only a small part of cultural tourism but it can help to overcome a lack of tangible cultural capital, the serial reproduction of culture and mass cultural tourism (Richards, Wilson, 2006). A city's ability to transform its urban cultural endowment into assets that have a distinctive symbolic value thus becomes crucial for its competitiveness, as does its capacity to use these assets to attract sustainable tourism segments (Franch et al, 2008; OECD, 2009). Developing creative tourism involves collaboration with a wider and dispersed value networks rather than narrow value chain. 'Active policy approaches are needed to effectively promote and capture the opportunities to generate value by hybridizing creativity and tourism' (OECD, 2014, p 8).



Creative tourism may assume many different forms (Richards, Wilson, 2007), within three broad, interconnected categories (Richards, 2013): the cultural events or creative performances typical of advanced tourism products; clusters or cultural districts which are an expression of creative spaces; creative strategies and policies that promote the hybridization of culture with place specific resources. Accordingly, creative tourism may either be seen as a culture and creative industry (Bagwell, 2009), or as an important sector for smart specializations within the creative economy (Andersson, Thomsen, 2008).

# Case study and methodology

Italy's cultural heritage and creative potential should put culture at the centre of national and local development policies, including urban policies (Sacco, 2012). However, in Italy policies around heritage resources have led to traditional development models in which the generation of value through culture is focused on conventional heritage-based cultural tourism and local products (Sacco, 2012). Italy has a rich artistic and cultural heritage and culture plays a fundamental role in the shaping of the national identity and brand image as a cultural tourism destination. Italy has one of the largest cultural and creative industries in Europe, both in terms of GDP and numbers employed in the sector, and some of the cultural and creative sectors enjoy a strong international position (Santagata, 2009; Unioncamere, Symbola, 2011). Although traditional cultural tourism promises development opportunities for both the great art cities and smaller urban centres (ONT, 2009; TCI, 2009; BIT, 2010), the sustainability and competitiveness of these cities would undoubtedly benefit from complementarities with research and innovation, education and social inclusion policies and forms of smart specialization between culture and traditional sectors (Sacco, 2012; OECD, 2014). However, these complementarities are usually still either ignored or simply not implemented – with a few exceptions.

The city of Trento (pop. 115,000), provincial capital of the autonomous province of Trento in the northeast of Italy, is bucking the general national trend of small and medium-sized cities, which focus on traditional cultural tourism as their main lever for urban development. Studies on the Italian creative economy (Lazzeretti, Boix, Capone, 2008; Capone, Cinti, 2009), in fact, show Trento to be a rare urban system specialized in both traditional cultural industries and non-traditional creative sectors. This has been demonstrated using the consolidated quantitative methodological approach of the literature and empirical research on industrial districts (Istat, 1997; Sforzi, Lorenzioni, 2002), extended and adapted to identify the socio-economic areas where firms specialized in the creative economy (DCMS, 2001) are concentrated. This case study is interesting for many reasons. Firstly, cities specialized both in the cultural and creative sectors, like Milan and Turin, are usually large and have extensive heritage resources and technological and knowledge endowments; secondly, although the province of Trento is a competitive tourist destination, cultural tourism in Trento has only developed within the last ten years; thirdly, Trentino is one of the few Italian provinces which has invested in its culture infrastructure as a driver of sustainable local development rather than as a mere tourism marketing tool (Sacco, 2012).

A single case study design (Yin, 2003) was deemed appropriate to provide insights into both traditional and new ways in which culture can catalyse urban renewal and the development of creative cities, and into the place specific conditions which influence and promote their actual realization. The nature of Trento's status as a creative city and the forms of smart specialization in the city are investigated through an exploratory and descriptive analysis, which combines different data sources: research on the evolution of



Trentino's development model (Marcantoni, Postal, Toniatti, 2011; Della Lucia, 2013); desk analysis of the sectoral policies (Strategic Plan, Tourism and Cultural Plan) of the municipality of Trento over the last 15 years (Municipality of Trento, 2004, 2013; eTourism, 2009) and of the Provincial Development Plans (Autonomous Province of Trento, 2002, 2006, 2009); in-depth interviews with representatives of public policy (culture, education and scientific research), public and private cultural institutions and incubators/promoters of local development in the area. Though exploratory, the research required the analysis and systematization of qualitative and quantitative secondary data and their combination with primary data. The results are discussed with respect to the place specific conditions driving Trento's culture-led regeneration toward the development of a creative city, and the nature of this process.

# Features of Trento as a creative city

Trento has developed multiple value creation paths based on knowledge and culture, which qualify it as both a knowledge and a consumer city (Table 1) (Della Lucia, 2013). Trento's status as a knowledge city is due to its excellent network of scientific and technological research and higher education bodies, whose standing is recognized at both the Italian and the European level (Marcantoni, Postal, Toniatti, 2011). Three public institutions have been involved in the development of this system: the Bruno Kessler (FBK) Foundation, the Edmund Mach Foundation and the University of Trento. The network attracts skilled human capital, students, innovative businesses, resources and investment from all over Italy and abroad and the local area benefits from the research, training and knowledge transfer carried out by these institutions. Trento, for example, is the only Italian partner in the European Institute for Innovation and Technology and the city's collaboration with this Institute's European ICT research and industry networks has led to other international centres of research and higher education taking off here, and the consequent transfer of technology to locally based companies. Trento has also been selected by the Institute of Electrical and Electronics Engineers (IEEE) as one of the 10 cities in the world to participate in the IEEE Smart cities initiative http://smartcities.ieee.org/). The initiative focuses on the application of emerging big data and open data technologies to different dimensions of urban life - government, health and wellbeing, energy efficiency, tourism and mobility - aiming at developing sustainable practices and pools of talent which improve standards of living for both residents and visitors and can be adopted by other towns in Europe. The knowledge workers employed in this research network account for a major share of the city's demand for immaterial consumption, due to their high level of education and, often, their higher disposable income. In the academic year 2013-2014, for example, the University expressed the consumer demand of more than 1,200 people professors, researchers and technical and administrative staff - in addition to more than 16,000 students.

Trento owes its consumer city status to its cultural and artistic heritage – both religious and secular, to the concentration in the city of cultural and creative industries (e.g. publishing and audio-visual); to the main cultural institutions and associations of the province which combine popular culture and local tradition with innovation and the contemporary, and to its cultural events and services and amenities (Municipality of Trento, 2004, 2013). Residents, including knowledge workers, students, commuters, external users of advanced services (commercial, health) and leisure and business tourists consume the services and cultural activities of the city. The investments of the 1980s in the restoration of historic buildings to house the city's libraries, important collections of modern and contemporary art, and science museums, were intended to provide local communities with



educational and leisure opportunities. Only later did they become tourism marketing tools (eTourism, 2009) and now, twenty years later, this choice has been reinforced by sizeable provincial investments in two iconic museums: the Mart, a gallery of modern and contemporary art, and the Muse, a science museum. Investment in cultural catalysts, publicly owned and funded, is the cornerstone of Trento's qualification as a consumer city, but entirely in keeping with the city's past. The Mart was established on the site of an old workshop and Muse developed out of the province's oldest cultural organization connected to its urban Alpine identity.

Table 1. Features of Trento as a creative city

Creative city	Features
Knowledge city	*Excellent scientific and technological research and higher education network (FBK Foundation, Mach Foundation, University of Trento, Turin's Italian Automotive Federation of Automotive (FIAT) Research centre, Centre for REsearch And Telecommunication Experimentation for NETworked communities (CRETE-NET), The Research Institute for the Evaluation of Public Policies (IRVAPP), Centre for Advanced Computer Graphics Technologies (GraphiTech), Centre for Computational and Systems Biology (COSBI), Centre for Integrative Biology (CIBIO), etc.
	•Participation in the Smart cities initiative of the Institute of Electrical and Electronics Engineers (IEEE).
	•Attraction of skilled human capital, students, innovative businesses, resources and investment (European Institute for Innovation and Technology, Trento RISE, National Research Council (CNR) Centres.
	•Creative class: Knowledge workers employed in this system.
Consumer city	*Significant religious, secular, artistic and cultural heritage situated between Central Europe and the Mediterranean world.
	*Cultural institutions and associations which combine popular culture and local tradition with innovation and the contemporary (Folk Museums, Museum of Buonconsiglio Castle, Foundation of Historic Museums of Trentino, Gallery of modern and contemporary art - Mart, Science museum - Muse).
	•Cultural and creative industries (publishing and audio-visual).
	•Hallmark events, services and amenities.
	•Creative class: knowledge workers, public administration employees, business and leisure tourists, residents.

## Forms of smart specialization in Trento

The multiple culture-led value creation paths evident in Trento have catalysed forms of smart specialization between culture and other sectors. They mainly involve creative tourism and creative connections and hybridizations between culture and traditional small industries, which have been generated by independent business initiatives or promoted by provincial and municipal policies (Table 2).

All three forms of creative tourism are evident in Trento – creative strategies, creative spaces and events. The provincial investment in the Muse (http://www.muse.it/), the science museum opened in July 2013, is a creative strategy designed to enable and encourage a virtuous, synergistic relationship between culture, knowledge and tourism.



The province's oldest cultural organization connected to its Alpine identity has been transformed into a modern, eco-sustainable architectural structure, which combines the traditional roles of a science museum with modern functions as a research centre, including scientific and didactic/edutainment laboratories. Almost one year after its opening it had already established itself as an important tourist attraction, having received over 500.000 visitors from Italy and abroad. The museum is located in an area of the city where major urban regeneration projects are underway and promises to become both the mainstay and an incubator of an 'Evolved Cultural District' (Sacco, 2010). This ongoing project involving the provincial cities of Trento and Rovereto is intended to foster a creative space that connects the cities' different culture-led development paths and encourages smart specializations between culture, tourism and the economy in order to innovate urban development. The district leverages urban heritage resources and cultural investments and relies on a participatory approach involving institutional actors and the representatives of various sectors - culture, education, tourism, science and technology industry, institutions and banking foundations, etc. - in the development and implementation of the project. The hallmark cultural events hosted in Trento are the creative achievements of the most dynamic sectors of the cultural and creative industries in the area (publishing and film). The strong symbolic value of the Festival of Economics (http:// 2014.festivaleconomia.eu/) - run for the eighth successive year in 2014 in some of the city's most beautiful buildings and squares – lies in its being a forum for the innovative use of communications technologies and publishing to disseminate international expert debate on major economic and societal issues to a wide audience. The valence of the Mountain Film Festival (http://www.trentofestival.it/) - now in its 62nd year - derives from its use of audio-visual media, film and writing to bring the scientific and cultural debate around mountains and sustainability. As annual events, these festivals are gradually becoming so closely associated with Trento's urban identities that they have become drivers for the image-making and urban marketing and branding of Trento as a knowledge and culture city.

Smart specializations between culture and traditional small industries involve both the use of the latter's products and services in the area's institutions and cultural associations and the use of culture to innovate the offer of traditional industries. On the one hand, the products of small industry are used in cultural processes - e.g. specialized local companies are involved in the construction of university buildings and major scientific and cultural infrastructure projects such as Muse, in setting up exhibitions and running events. Traditional industrialists' responses to the specific needs of institutions and creative associations can also stimulate the development of partnerships to design and develop new specialist products for culture - e.g. innovative systems for the conservation and restoration of cultural artefacts, the culture-sensitive restoration of buildings, systems for the protection and sustainable management of cultural sites. On the other hand, culture is a creative input in the development of new specialist craft products and services, increasing their symbolic, aesthetic and emotional value through their connection with a particular place. It also encourages the creation of new businesses, either spin-offs of the university's cultural bodies or private initiatives – e.g. arts and crafts, designer products for the museum bookshop, updating the packaging and publicizing of food and wine products through collaboration with designers. The study that Trentino Sviluppo - the provincial agency that promotes local sustainable development through sectoral integration and innovation - has just carried out on the connections between culture and traditional small industries, shows that the economic and occupational impact of cultural investments on the turnover of the province's small traditional industries is quite significant. The agency aims to foster initiatives that support the exchange of ideas and the development of joint



projects between public institutions, scientific research bodies, technological innovators and institutions and businesses in the cultural and creative industries. These initiatives include 'the craft bid' – an event intended to foster links between institutions and businesses, awareness raising meetings for companies who want to collaborate with the world of culture and technical workshops with artists.

**Table 2. Smart specialization in Trento** 

Culture and Tourism (Creative Tourism)	Creative strategy/policy: Muse - science museum.
(	•Creative place: Project to develop a culture and creative cluster incorporating the cities of Trento and Rovereto.
	•Creative events: Hallmark events (Festival of Economics, Mountain Film Festival) organized in partnership with local culture and creative industries (advertising, film, video, multimedia)
Culture and traditional small industries	•Traditional small industries participating in the culture value chain.
('Creative craft')	•Innovation of specialist craft products and services through culture and creativity.
	•Creation of new small businesses as spin-offs from universities and cultural institutions or private initiatives.

Discussion: the drivers and nature of Trento's culture-led regeneration

Trento's dual status as both a knowledge and consumer city is the result of a long, internally driven culture-led regeneration process marked by the enhancement of local heritage resources through imaginative public development policies (Autonomous Province of Trento, 2002, 2006, 2009). The history of this Alpine city, a result of its geographical position on the border between Central Europe and the Mediterranean world, has produced a significant — both religious and secular — artistic and cultural heritage. Its openness to intercultural exchange and long traditions of self-government have shaped the city and its services, networks of cultural and research institutions and standard of living.

This legacy has been enhanced by innovative policies, both provincial and municipal, which have had a critical role in anticipating post-industrial development processes based on culture and knowledge. Since the 1960s the Province of Trento has invested – singlehandedly, and taking advantage of its autonomous status – in research facilities and the training, retention and attraction of qualified human resources. The province's far-sighted investment laid the foundation for a knowledge economy which has led, over the years, to the gradual fertilization of the traditional, and fragmented, Alpine economy by the post-industrial economy. This hybridization is evident in innovations throughout the urban system, from sizable public investments in the university, scientific and technological research centres, libraries and museums, to the establishment of new industrial clusters and technological districts, the development of new kinds of entrepreneurship in the culture and creative sectors and the reorganization of the territorial tourist marketing organization.

In the last decade, the municipality of Trento has reinforced this knowledge-based urban development driven by provincial policies and has embarked on its requalification as a cultural city in order to exploit its rich historical urban legacy through innovative policies and sizeable – for a small city – investments. The city government's main tools have been



designed to use a participatory approach to urban development which results in the gradual formation of a developed concept of tourism, culture and tourism and cultural policies. The Strategic Plan 2001-2010 (Municipality of Trento, 2004) marked the beginning of a municipal planning logic of urban development that leverages sectoral, institutional and social interdependencies. The 2009 Tourism Plan (eTourism, 2009) has enhanced the tangible and intangible cultural heritage of the city through the lever of cultural tourism. The 2013 Culture Policy (Municipality of Trento, 2013), rather than just considering the relationship between culture and tourism, has developed a transverse cultural policy which integrates innovative urban development and sustainability (Sacco, 2010). The smart specializations between culture and traditional small industries and between culture and tourism are signs of real progress in this direction. As at the provincial level, Trento's resources and design skills were crucial to defining these development policies, which are pioneering in the context of a small Alpine city.

Public policies and sizable investments have transformed the physical appearance and image of the city while remaining faithful to its urban historical identity. Innovations have been inspired by paradigmatic international experiments in culture-led regeneration in cities like Bilbao, Madrid and Barcelona, but have been adapted to the local context and have strong links with previous visionary public investment in research centres, which laid the foundations for current culture-led urban regeneration processes. Public investment in iconic cultural catalysts is the clearest manifestation of the tradition-innovation symbiosis aimed at enhancing the value of urban context. Criteria of reuse, continuity and sustainability have been used to restore and requalify disused and marginal city centre areas; the siting here of provincial advanced training, research and culture activities and services has encouraged the integrated development of these areas. Restored urban areas have also been connected with old villages and new residential eco-sustainable suburbs.

## Conclusion, limits and future research

This paper deals with culture as an engine to foster urban development and renewal, a topical issue in local development and managerial studies and of great interest to policy makers and managers. In a debt-burdened period of recession, the repositioning of culture in the value chain and the development of new, culture-based approaches to urban regeneration can allow decision makers to help post-industrial cities to innovate their traditional development models and to foster economic and social recovery. The recent theoretical debate on culture-led urban regeneration identified both the sources of urban creativity and the many processes which use it to catalyse urban renewal and the development of creative cities. The value of this interpretative approach is its identification of the common denominator of different culture-led development paths in the causal link between culture, creativity, knowledge and innovation. However, whether all these processes occur in practice - and why they either do or do not - and the scale of cultureled regeneration are place specific conditions which have so far been largely neglected in the literature and empirical analyses. The paper helps to close this gap through a case study analysis which is crucial to both the validation of the theoretical reflections on culture-led urban regeneration and as a way of opening new vistas of research and supporting decision makers in effective decisions and investments which can drive sustainable economic and social culture-based urban regualification.

The case of the city of Trento clearly illustrates the influence of place specific conditions on the nature and scale of culture-led urban transformation. In Trento provincial and municipal



policies played, and still play, a crucial role in sustaining culture-led urban regeneration aimed at both preserving and enhancing existing urban heritage resources and equipping the city to face the challenges of emerging scenarios by injecting creativity and knowledge into traditional urban development models through imaginative policies and sizable investments coherent with the city's identity. This internally driven regeneration has thus allowed a balanced integration between traditional urban culture and new cultural catalysts and consumption-led and experience-based culture development strategies inspired by paradigmatic international experiments in culture-led regeneration (Della Lucia, Franch, 2014). Ensuring innovation in tandem with continuity and the conservation of urban authenticity has raised the standard of living in Trento and means that education, research, culture and forms of creative tourism - in particular best practices in creative tourism and emerging initiatives in 'creative crafts', which did not exist a few years ago are now part of the urban identity and of the range of urban consumption experiences and perceived images. This study provided qualitative evidence of Trento's multiple urban identities as a historical, knowledge and cultural city, although it cannot yet be considered a fully fledged creative city. They are the result of the accumulation and subsequent chance combination of actions by the provincial and municipal governments and independent business initiatives, but there is no shared, informed, organic development plan to draw together these paths.

Though exploratory and qualitative, this paper has theoretical and managerial implications. If culture-led urban regeneration is shown to be place specific – i.e. if local context influences the nature and the sustainability of decisions and actions taken at local level – this means, that the established theoretical debate and empirical analysis on culture-led urban regeneration should be integrated with other branches of managerial and marketing studies which focus on the impact of local context on the social, economic and organizational dimensions of urban development. The hybridization of this literature domain with cross-cultural management studies has been explored in recent studies (Go, Della Lucia, Trunfio, 2014).

From the managerial perspective, the study shows that, first, inherited heritage resources and innovative policy making are strictly interconnected in shaping culture-led urban regeneration. Urban legacies - historical, cultural, political and territorial - provide both strengths to be exploited and problems to overcome, requiring public entities to act to transform the urban genetic code. Greater public and private awareness of how culture interacts and hybridizes other sectors locally, and the creation of a governance system which fosters and manages cross-sectoral fertilization and social innovation, are thus required to drive culture-led urban regeneration effectively. Second, and closely linked to the first managerial implication, even small and medium-sized cities which don't have a strong cultural legacy may embark upon culture-led regeneration through processes which go beyond the more popular Italian stereotypes (traditional cultural tourism). Maintaining and developing a strong and articulated service sector - through cultural, knowledge and tourist activities, etc. - is a sound strategic lever of urban development, particularly in small cities lacking strong, diversified local industries. The case of Trento shows that the virtuous interaction between educational systems and individual and social capacity building (Moulde, Vorley, Roodhouse, 2007) may promote culture-led innovation at different levels (urban development, business models, new entrepreneurship, etc.), including new forms of smart specialization between culture and other sectors. Finally, public investment in cultural catalysts such as consumption-led and experience-based activities and iconic buildings can be used to foster culture-led urban regeneration. However, the success of these strategies requires the balancing of innovation driven by



external agendas with preservation of the urban identity, thus avoiding the risk of commodifying the urban landscape, losing its authenticity and consequently raising questions about the sustainability of culture-led urban regeneration processes (Della Lucia, Franch, 2014).

Future research could follow different and complementary paths to enhance the theoretical insights of the paper and to overcome its limitations. In addition to exploratory and qualitative analyses, multivariate methods of analysis could be adopted in order to assess the status of a creative city, by identifying and measuring the variables that define both its characteristics as a knowledge city and a consumer city and the urban 'creative atmosphere' (OECD, 2014). The identification of these variables and how they interact in urban development might be inspired by other branches of studies – e.g. cross-cultural management studies (Go, Della Lucia, Trunfio, 2014) – devoted to analysing the impact of the culture of context on development processes. A second avenue of research might take a participatory governance approach (Kooiman et al, 2008; Go, Trunfio, 2011) to investigate how social capital and territorial/urban education (Inkpen, Tsang, 2005) can be levered to promote and manage the culture-led cross-sectoral fertilization and social innovation needed to develop creative cities. A third possible research perspective is the investigation of the impact of culture-led urban regeneration on projected and perceived urban image and branding based on local identity.

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# Exploring the role of complementary competencies in technology transfer: A new model for spin-off creation programs

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#### Abstract

Knowledge transfer aims to promote and foster the transformation of ideas, with highly innovative content emerging from university research into various innovation vehicles, including start-ups and (university) spin-offs. One major obstacle hindering the success of this type of firms is the scant level of entrepreneurial competencies possessed by academic and technical teams. Drawing from the complementary competencies perspective of RBV theory, the present study describes a spin-off creation program implemented at the University of Florence Incubator. We investigate how the synergistic integration of business students' managerial skills in scientific-based business projects can bridge the gap between entrepreneurship education and technology transfer within the university environment. We conclude that specific methods may encourage technical and managerial competencies to develop in synergy in order to establish successful spin-offs and to implement the third mission of the university.

Key words: Technology transfer, university spin-off, venture creation program, entrepreneurship education program, complementary competencies, academic entrepreneurship

## Introduction

Gaining competitive advantage is often difficult for companies in today's complex, turbulent world. Identifying the factors influencing firms' success allows to better exploit their specific resources and competencies, and make strategic choices that improve their ability to take advantage of future opportunities. Knowledge-based resources are among the most important determinants of institutional, business and industry performance (Audretsch, 2009).

Given the difficulties that established firms have in bringing new technologies to the market, universities are increasingly viewed as a source for the creation of high-tech firms (O'Shea, 2005). As a result, there is a growing need for universities to develop stronger linkages and channels between science, technology and market, and take on a "third mission" towards the development of the wider social and economic community (Etzkowitz, 2002). While it is widely recognised that teaching and research are the two missions of a university, through which knowledge is preserved, created, applied and disseminated, knowledge transfer is defined as its third mission and refers to the transfer and application of knowledge to the community (Unesco Workshop, 2007).



In order to significantly reduce the gap between knowledge creation and knowledge use, knowledge transfer aims to promote and foster the transformation of ideas, with highly innovative content emerging from university research via patents, joint research laboratories and projects, research contracts and university spin-offs. The start-up of business venture is an important channel that universities can use to transfer knowledge beyond the narrow confines of the academic community, into the economic system (Guerrero et al., 2014).

Unfortunately, many universities have failed to become more entrepreneurial. Recent findings, especially from Europe, suggest that many universities are not experiencing a significant increase in spin-off behaviour (Wright et al., 2003). In addition, empirical investigation shows that the majority of public-research spin-offs perform rather poorly (Mustar et al., 2008). It is important for research to identify and analyse the obstacles that limit the success of high-tech start-up in order to better understand and, where possible, leverage their potential contributions to innovation and growth.

University spin-offs face both scientific/technological and market uncertainties when attempting to transform scientific knowledge and research outputs into marketable products or services (Fontes, 2005). As suggested by Barr et al. (2009), in order to have economic impact, technology ventures have to bridge institutional, financial and skill gaps, labelled the "valley of death". Indeed, one major obstacle that potentially hinders the success of university spin-offs is the scant level of entrepreneurial competencies possessed by academic and technical teams. New venture creation, and entrepreneurship in general, seems to be not readily compatible with the traditional role of the university researcher (Bercovitz and Feldman, 2008). In effect, according to Lundqvist and Williams-Middleton (2013), the majority of academic scientists seem not to prioritise the dissemination of their research through business and value creation.

It is clear that high-tech ideas per se are not enough to establish a business. Academic research wouldn't have much effect without committed and competent individuals who can develop and manage new firms and new business activity based on research results and discoveries (Rasmussen and Sorheim, 2006). Therefore, the success of a spin-off necessarily implies that two opposing concepts of science become closer: the "scientific" and the "economic" conception (Ndonzuau et al., 2002). Most authors claim that team building is crucial for start-ups' success, by bringing together complementary competencies and knowledge (Lundqvist, 2014).

According to Olilla and Williams-Middleton (2011), there still exists a gap in the field of university entrepreneurship, where entrepreneurial education is not adequately considered. Drawing from the complementary competencies perspective of the resource-based view theory, this paper aims to fill this gap and investigate how introducing spin-off creation programs within university incubators can bridge the gap between entrepreneurship education and technology transfer within a university environment. The overall purpose of our research is to contribute to the existing debate on spin-off creation weaknesses by analysing extant literature, and to offer relevant ideas to improve universities' strategies for dealing with the challenges of academic entrepreneurship. We support our ideas by illustrating the spin-off creation program implemented at the University of Florence Incubator (IUF) in Italy, who was established in 2010 and whose activities were supported by Tuscany Region funding.



The spin-off creation program is grounded in the collaboration between the IUF and the School of Economics and Management of the University of Florence. In the most successful venture creation/entrepreneurial learning programs around the world, the spin-off creation process benefit from the synergistic integration and transfer of complementary specialised competencies. Business students preparing for their postgraduate degree are appointed as surrogate entrepreneurs to develop promising early-stage technology transfer ideas. Students are called to apply their managerial skills to science-based projects of innovative start-ups which need to develop their organisational, marketing, and administrative purposes. The core design of the program is to match business students with academic entrepreneurs in order to build a managerial team to develop their technology-based ideas and to turn them into profitable business.

Results show that spin-off creation programs can effectively augment university technology transfer by helping to develop and grow successful start-ups. Incubators, business schools and laboratories concerned with entrepreneurship and action-based education are key resources allowing university scientists to engage in venture creation. Our research findings help provide a better understanding of the knowledge transfer process in education, and enable evidence-based recommendations for researchers, managers and policy-makers.

The structure of the paper is as follows. In the theoretical framework section we review the relevant literature on the third mission of universities, the link between university scientists and venture creation, the RBV theoretical framework on complementary competencies, and venture creation programs. The following section illustrates the methodology. Next, an in-depth description of the IUF program is presented. The discussion relates case findings to our understanding of academic entrepreneurship through venture creation. Finally, the last section draws conclusions and presents possible implications and opportunities for future research.

# Theoretical Framework

### The Third Mission of Universities

The main missions of universities have traditionally been higher education and the universal advancement of knowledge and culture (Kalar and Antoncic, 2015). A third mission is now being considered increasingly important; this is the direct involvement of universities with business: the valorisation of the results of academic research and knowledge transfer for innovation (Unesco Workshop, 2007). The notions of "valorisation", "transfer", "a third stream" and "a third mission" are related to the new concept of an "entrepreneurial-oriented university" (Philpott et al., 2011).

From the mid-1970s to the mid-1980s, a progressive transformation occurred regarding the nature of knowledge and the process of innovation. The main implication was that in high-technology sectors, it was important for firms to develop strong connections with academic labs if they wished to be in a position to master new knowledge (Roberts, 1991). On the other hand, there was a growing need for universities to disseminate knowledge generated beyond the narrow confines of the academic community itself (Guerrero et al., 2014). The pursuit of third-mission goals involves a series of processes and tools aimed at transferring the products of research to the market (Visintin and Pittino, 2014).



At the policy level, combining the importance of tacit dimensions in knowledge production with the heterogeneous composition of innovation networks drove a shift in the acknowledgement of the role of universities in regional and national innovation systems. This political understanding progressively put knowledge and technology transfer on the agenda of all countries and universities (Etzkowitz, 2003). In the USA, the Bayh-Dole Act (1980) was a landmark in the national regulation of technology transfer activities.

The increasing importance of the third mission has resulted in greater public-private cooperation, including in the form of spin-off firms (Lerner, 2004). In practice, this capitalisation of knowledge takes different forms and is sustained by an ever-growing array of policies and organisational structures, including technology transfer offices, incubators, spin-off firms, science and technology parks, patenting, fiscal incentives for business angels and seed capital, policies for venture capital and so on (Leitch and Harrison, 2005).

# University Scientists and Venture Creation

The efforts of research universities in pursuing the third mission have helped create an image of university scientists increasingly confronted with entrepreneurial roles (Etzkowitz, 2003). Jain et al. (2009) describe academic entrepreneurs as spanning from the "pure academic" pursuing entrepreneurial endeavours to the "hybrid individual" with both scientific and business qualifications.

However, D'Este et al. (2012) argue that new venture creation, and entrepreneurship in general, is not readily compatible with the traditional role of the university scientist. The majority of university researchers seem uninterested in championing their ideas in the marketplace as entrepreneurs, because they already have a career path within academia (Lam, 2010). In many cases, the university scientist's main ambition when commercializing research is to illustrate the discovery of new knowledge in order to gain recognition within the scientific community, with financial gain as a secondary objective, often as a means of securing more research funding (Lundqvist and Williams-Middleton, 2013). Wright (2012) find that the most common roles for university scientists in a venture built on their research are senior manager, advisor or technical director; it is less common, and often not encouraged by the university, for them to have the role of managing director or lead entrepreneur.

Moreover, university scientists may face barriers, such as a lack of knowledge or skill in recognising and exploiting opportunities stemming from their research (Mosey and Wright, 2007). As suggested by Ndonzuau et al. (2002), the success of a spin-off necessarily implies that two opposing concepts of science become closer, namely, the "scientific" conception, which considers science as an end in itself, and the "economic" conception, which considers it more as a means of achieving other goals (particularly making money). Due to spin-offs' peculiar nature, they need to properly balance scientific orientation with business orientation: scientific orientation is necessary for the process of discovery and early technology development, whereas business orientation is required for the effective commercialisation of products and services that incorporate the technology (Cetindamar et al., 2009).

In order to have a significant economic impact, technology ventures are often seen as having to transcend different institutional, financial and skill gaps, known as the "valley of death" (Barr et al., 2009). Largely they need to effectively manage the intersection between academic research and industry in order to be successful (Arvanitis et al., 2008).



### Resource-Based View Framework

The resource-based view (RBV) is a theoretical framework from the field of strategic management, used to identify the complex, intangible and dynamic resources of an enterprise and assess its competitive advantage (Hinterhuber, 2013; Penrose, 1959). Following Drejer (2001), the real source of competitive advantage is management's ability to consolidate corporate-wide technologies and production skills into competencies that empower individual businesses to adapt quickly to changing opportunities.

As stated by Lockett and Thompson (2004), it is the heterogeneity, not the homogeneity, of resources and competencies that give each firm its unique character. Resource-based theory claims that complementary resources and competencies may result in synergistic performance impact (Teece, 2007). A complementary competency is an enhanced resource or asset that arises when a resource produces more value in the presence of another resource than by itself.

A core issue in the field of innovation management is the synergy between technological and non-technological elements of innovation (Xu et al., 2007). Business and managerial competencies in general refer to the skills and knowledge (technical as well as cognitive) top management use to craft a strategic vision and communicate it, as well as solve problems and allocate resources, lead others, and create and stimulate an environment for change and continuous improvement through learning (Martin-Rojas et al., 2013).

A combination of technological and marketing (entrepreneurial) resources and competencies is key for achieving superior performance in environments with high technological turbulence and creating a sustainable competitive advantage for innovative firms (Song et al., 2005; Wang et al., 2004). Technology-related competencies have been shown to enable firms to achieve superior performance (Srivastava and Gnyawali, 2011). Likewise, marketing-related competencies have been recognised in the innovation management literature as complementary for the transfer of research results to the market (Teece, 1986). A firm with strong technological competencies is capable of using scientific knowledge to promptly develop products and processes that offer new benefits and create value for customers (McEvily et al., 2004). A firm with strong marketing competencies is able to use its deep understanding of customer needs to manage development of new products and organise marketing activities that provide unique value to consumers (Ngo and O'Cass, 2012).

Following theoretical arguments drawn from the RBV perspective, it has been suggested that one of the main factors that may affect the growth and success of new business ventures is the quality and heterogeneity of the entrepreneurial/managerial group (Visintin and Pittino, 2014). Compared to single founders, entrepreneurial teams are more likely to possess the competencies needed to achieve a fit between technology and business (Chowdhury, 2005; Colombo and Grilli, 2010).

Venture Creation and Entrepreneurial Education Programs

As stated above, one major obstacle that potentially limits the success of university spinoffs is the scant level of entrepreneurial competencies possessed by the academic and technical team in charge. An organisation that allocates a large portion of its resources to R&D development without a reciprocal portion of entrepreneurial capacity cannot be said to be utilising its designated resources in an effective manner.



Universities can contribute to entrepreneurship both directly, by the commercialisation of research and by being the seedbed for new ventures, and indirectly, by educating candidates to be future innovators and entrepreneurs (Guerrero and Urbano, 2012). According to Klofsten (2000), there are three basic complementary activities aimed at stimulating entrepreneurship which should be present in a university. First, activities to create and maintain an enterprising culture overall at the university are needed, integrated into all courses, research and external activity. Second, students must be provided with separate courses in entrepreneurship. Third, specific training programs for individuals who wish to start their own enterprise should be available. Issues concerning resource constraints on the development of spin-off ventures is linked to the role business schools can play in the development of entrepreneurship in universities (Wright et al., 2004).

According to the complementary competencies perspective of the RBV, team building and networking are crucial for start-ups' success, by bringing together complementary skills and knowledge, and helping to bridge the valley of death (Barr et al., 2009). Universities around the world that have created successful spin-offs are characterised by clear strategies for the engagement and commitment of multiple stakeholders (both internal and external to the university) to achieve new ventures and support the spin-offs' entrepreneurial orientation. Some universities establish or create stronger links to incubators and technology transfer offices, while others integrate technology transfer activities within entrepreneurship education; still others recommend the involvement of surrogate/external entrepreneurs (Vohora et al., 2004).

Incubators and technology transfer offices play a key role in engendering academic entrepreneurship. First, they may engineer synergistic networks between academics, venture capitalists, advisors and managers, who provide the human and financial resources necessary to start a company. Second, they provide services such as training and tutoring in evaluating markets, writing business plans, assembling venture teams and obtaining space and equipment (Etzkowitz, 2002).

One of the major challenges of university incubators is precisely that of combining entrepreneurship education and university technology transfer (Lackeus, 2013). Bringing entrepreneurial education together with incubation at the university, and letting students create a venture as part of their entrepreneurial education, is proposed to be a successful way to develop entrepreneurs as well as technology transfer, and to bridge the gap between inventors and ideas and the marketplace (Olilla and Williams-Middleton, 2011).

An important question underlying venture creation and entrepreneurial education programs concerns whether it is possible to help the emergence of latent entrepreneurial attitudes and the learning of complementary managerial competencies through different educational policies and programs (Erikson 2003; Sanchez, 2013). Many argue that there is enough evidence that entrepreneurship can be taught (Kuratko, 2005). Others state that entrepreneurs are primarily born, not made (Nicolaou and Shane, 2009). Some opt for a middle way, claiming that certain aspects of entrepreneurship cannot be taught, such as self-confidence, persistence and energy levels (De Faoite et al., 2003).

On the whole, consensus among scholars is limited to the belief that the only way to become entrepreneurial is through direct experience (Lackeus, 2013). Learning-by-doing and direct observation can feature in entrepreneurial education through action-based approaches, often labelled "learning through entrepreneurship" (O'Connor, 2013; Rasmussen and Sorheim, 2006). Involving the students in working on real business cases



could range from case-based teaching, to matching with real start-ups, to support in starting a company (Erikson and Gjellan, 2003).

External entrepreneurship has been suggested as a way of adding complementary entrepreneurial competencies to increase the venture creation rate and bridge the valley of death (Fontes, 2005; Vohora et al., 2004). The joint presence of academic and non-academic members is an important dimension that may enhance the integration of the "scientific" and "economic" aspects of technology transfer (Beckman et al., 2007; Druilhe and Garnsey, 2004). Students or recent graduates of management and entrepreneurship courses can also serve as external entrepreneurs in early-stage technology ventures (Franklin et al., 2001; Lundqvist, 2014). Since both product/technology competencies and more business-oriented market and managerial competencies are important for technology ventures to succeed, such surrogacy should complement rather than replace the entrepreneurial contributions from science- and technology-based teams (Lockett and Wright, 2005).

# Methodology

On the basis of the literature review, the aim of the present study is to illustrate the venture creation/entrepreneurial education program developing at the University of Florence Incubator (Italy). The program primarily aims to bridge the gap between entrepreneurship education and technology transfer within the university environment.

This paper is based on an in-depth analysis that may be characterised as a case study (Yin, 1994). The case study method allows for study of a phenomenon within a real-life context, when boundaries between the phenomenon and its context are blurred, and multiple sources of data are utilised. In general, case studies are the preferred strategy when "how" or "why" questions are being posed, when the investigator has little control over events and when the focus is on a contemporary phenomenon within some real-life context.

Case evidence is gathered through documentation, archival material, interviews and participant observation. Data is triangulated where possible in order to determine replicable information in an attempt to minimise the subjectivity of the data presented (Flick, 2006).

The first step was a 6 months period of literature review on the topic of entrepreneurial education and venture creation program in order to build the theoretical framework. Desk data were collected through a 3 months period of analysis of multiple source of information: administrative documentation, archival material, best practice recommendations and guidelines. Field data were gathered though 5 in-depth interviews with members of the IUF management team and a 3 weeks period of participant observation with a follow-up phase.

# The IUF Spin-off Creation Program

The University of Florence aims to promote and foster the transformation of highly innovative ideas emerging from every area of university research into spin-offs and innovative start-ups. In recent years, it has established a number of tools to facilitate the link between its research facilities and external parties. Towards this aim, in early 2010 the University of Florence Incubator (IUF) was established. It is managed by CsaVRI (Centro



Servizi di Ateneo per la Valorizzazione della Ricerca e la gestione dell'Incubatore universitario), which is the central Technology Transfer Office of the University of Florence. In the period 2011-13, the IUF activities were supported by Tuscany Region public funding.

The IUF supports and provides pre-seed and seed services, including scientific/business ideas scouting, training, mentoring, tutoring, networking, fund raising and logistic support. Access to IUF services is open to applicants inside the University of Florence, and even to external applicants who show strong links to university research. The IUF offers its services to those intending to join a spin-off project or propose an innovative start-up, to those who want to know more about the activities of the IUF start-up businesses, with a view to purchasing the patents or products developed, and to those looking to collaborate with university spin-offs.

It has been understood from the beginning of the IUF's activities that a major obstacle to the success of the University of Florence's high-tech spin-offs is weak entrepreneurial competencies possessed by the academic and technical team. The IUF's management staff recognise the need to stimulate entrepreneurial activity and bridge the gap between inventors of research-based innovations and the marketplace, even if foundational entrepreneurial attitudes cannot be taught, but only helped to emerge in academic or students with ideas for new business ventures.

Following the most successful venture creation programs (i.e. in the US and Sweden), the IUF has been developing a mixed venture creation/entrepreneurial learning program based on team building, by bringing together complementary competencies and knowledge. The "IUF Spin-off Creation Program" is a special project created with the aim of trying to connect undergraduate business students (in the future, graduates and young researchers in management will also be included) and bring entrepreneurial and managerial skills to scientific-based projects in the pre-seed or start-up stage. The aim is to manage a synergistic integration and transfer of complementary competencies. The program is built through collaboration between the IUF and the School of Economics and Management at the University of Florence. Business students preparing for their postgraduate degree are selected and matched with teams with projects of new spin-offs based on science and technology research.

In order to encourage synergy between economic-managerial competencies and technological ones, three main activities have been identified and organised. First, students bring their organisational, marketing and administrative capabilities to scientific-based projects, in order to support the development of business models and business plans. Second, business students support scientific-based projects by pitching it and participating at various business competitions. Lastly, they analyse and develop the economic-managerial aspects of the project as a case study for their graduation thesis.

Students are matched to projects based on a brief presentation and an interview conducted by the IUF managing staff. The teams are supported by educators, practitioners, coaches, investors and business advisors, collaborating to meet the needs of both student and venture.

The first implementation of the program started in 2011 and was managed jointly by the IUF, the Laboratory of Innovation of the University of Florence School of Economics and Management, and the main association representing the industrial companies of Florence (Confindustria Firenze). The pilot project was a three-month intensive program. The final



goal was to present the technology-based projects incubated in the IUF as real business opportunities through an elevator pitch given by the student to an audience of business angels associated with Confindustria.

After the first and the second season of the program there was a follow-up phase dedicated to highlighting the results obtained. Thanks to the support of 45 business students, 40 ideas were presented in the business competition, 3 were financed by business angels, 3 students were employed in the start-ups and 1 became a shareholder.

In the short run, the program has been a good opportunity both for business students and academic inventors. Business students have had the opportunity to develop their managerial and entrepreneurial skills in real business situations, and get involved in the spin-off as a manager or co-founder. Academic inventors have had the opportunity to develop the economic and commercial sides of their projects, and test business sustainability and competitiveness. In the long run, the synergistic integration and transfer of specialised complementary competencies fosters a productive cycle of knowledge and technology transfer, which helps start up successful spin-offs.

Future implementations of the program will allow students to work voluntarily under a contractually secured incentive which stipulates that they will become shareholders if the venture is successful. The work for equity model allows spin-offs to reduce their financial requirement for professional services in the start-up stage and undertake useful professional collaboration. The IUF management team experience suggests that becoming co-founders is the best way for students and technical teams to share their competencies and develop successful synergies in the long run.

### Discussion

In 2008, the European Commission remarked that the teaching of entrepreneurship was not yet sufficiently integrated in higher education institutions' curricula, and that far too little existing entrepreneurship education efforts targeted students engaged in technical and scientific studies. The IUF spin-off creation program confirms the importance of entrepreneurship centres and incubators in universities. It illustrates venture ideas emerging from a university engaging a much larger network and resource base. As suggested by Glassman et al. (2003), it confirms a view of universities as "gateways" for innovations, thus moving away from an "ivory tower image".

Combining business students and research-based ideas as a strategy for entrepreneurship education and technology transfer might be a daunting task, but if carried out successfully, several objectives are achieved. First, this approach leads to the further development of ideas that otherwise might have been neglected. Second, students who wish to start their own company can access better ideas than they would normally come up with themselves. Third, it offers action-based entrepreneurial learning to business students, giving them training in developing high-growth businesses. Finally, this approach may help teams cross the valley of death and establish successful and long-lasting spinoffs.

The primary goal of the program is not to turn the greatest number of students into entrepreneurs (Bae et al., 2014). It is, instead, to get students to understand that entrepreneurship is an option for them, and to increase their confidence and self-efficacy in making this career choice (Fayolle and Gailly, 2015).



The IUF management team has worked from a basic theoretical perspective that is largely consistent with the five critical factors described by Van Burg et al. (2008) in their science-based approach to creating university spin-offs. These factors are indicated to be crucial for crossing the valley of death of new university start-ups. Two framework factors are the development of awareness of entrepreneurial opportunities and the creation of a culture that motivates and rewards entrepreneurial behaviour within the university. A third major factor is that the mix of technology knowledge and venture skills (intellectual property, marketing, financial) must be provided through coaching and training. A fourth factor is the development of a collaborative network of mentors, advisors, managers and investors. The program does not include only the last factor, which suggests that spin-off processes should be separated from academic research and teaching.

Following the framework suggested by Lackeus (2013), the IUF program helps bridge the gap between entrepreneurial education and technology transfer in the following five ways. First, it offers action-based learning, giving students the opportunity to work within a technical and entrepreneurial environment motivated by value creation. Second, the program emphasises team building, fostering interdisciplinary and complementary competencies. Third, the educational process includes networking events such as elevator pitch competitions to boost the technology transfer process. Fourth, the teams are supported by the incubator network, which works to meet the needs of both students and academic entrepreneurs. Finally, the program is closely connected with the local business context.

### Conclusions

Our study explores changes in the role of the university scientist towards academic entrepreneurship and venture creation, while adding to our understanding of the influence of university initiatives in knowledge and technology transfer. Previous research positions venture creation as the type of academic entrepreneurship least compatible with the traditional role of the university scientist. The IUF spin-off creation program, a mixed venture creation/entrepreneurial learning program based on team building and the complementary competencies perspective of the RBV framework, contributes to a more collaborative perspective on venture creation, in which university scientists play multiple and compatible roles, but do not necessarily have exclusive responsibility in leading the spin-off.

This article contributes to extant research showing that venture creation can be more compatible with the role of the university scientist when there is due to organised collective entrepreneurial activity at universities. Bringing students and scientists together in venture creation is proposed as one important approach within this perspective.

Our research has some implications for theory, practice and policy makers. On the theoretical side, it suggests that university spin-offs, due to their peculiar nature, need to properly balance their scientific and business orientations. It also contributes to the general literature on entrepreneurial teams in new ventures, and suggests a way to reconcile some inconsistent results on demographic homogeneity/heterogeneity and company performance appearing in the literature. University spin-offs aiming to outperform competitors in turbulent environments are called to build their competitive advantage on the integration of multidisciplinary and complementary competencies.



Concerning the practical implications for academic management, our research supports the notion that universities play increasingly important roles in entrepreneurship and economic development, and in offering students ways to develop the skills they need to create and lead technologically advanced entrepreneurial ventures. In the design and implementation of their scouting, coaching and consulting activities, the managers of university knowledge transfer offices should spread and promote some key messages to potential academic entrepreneurs. First of all, academic founders should recognise the need to include people with business and commercial expertise in order to develop business models and create business plans. Non-academic members should also be included among those who exhibit entrepreneurial and managerial competencies, in order to promote effective integration and synergistic knowledge exchange. The managerial implications lie in the confirmation that university spin-offs should be encouraged to focus on the dynamics of competence development as a whole.

Finally, policy makers and university institutions are asked to intensify their activities to implement educational, research and resource programs, towards enabling a culture of academic entrepreneurship to emerge within universities. This study reveals intriguing aspects related to the importance of local networks when setting up an action-based entrepreneurship program.

The current research is of course limited to a single case study, and thus leaves many questions unanswered. We are aware that a single case study, with data referred to a low number of years, is not enough in order to generalize any result. Future research will have to verify the long-term performance obtained by spin-offs that have benefitted from the IUF venture creation program. Another future research challenge is to compare similar programs around the world, from both performance and value creation standpoints.

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# Innovation and Internationalisation: Evidences from the Italian furniture industry

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### **Abstract**

Several studies pointed out the existence of a complex relationship between innovation and internationalisation, influenced by different firm-industry- and market-specific factors, thereby suggesting the need for further research. This paper contributes by integrating literature with a deeper view of the multifaceted phenomenon of innovation and its relationship with internationalisation in the specific context of Italian furniture companies. In a systematic effort to match the empirical world to theory, we adopted a qualitative approach based on a multiple-case study of four Italian furniture SMEs.

For the interviewed managers, innovation is a multifaceted concept, sector specific and not easy to define. However, most of them underline the strategic relevance of innovating along the brand dimension.

For the analysed firms, the relationship between innovation and internationalisation is strategic and often mutually dependent. Product innovation, favouring entrance and presence in international markets, represented a key driver of the internationalisation processes of the firms. At the same time, the constant interaction with foreign demand presented the need for further innovation along different business innovation dimensions.

This study points out the critical role of the market orientation of a firm and underlines the importance of the adaptation versus standardisation dilemma. Indeed, if innovation means to create new value and not only new things, along different dimensions, then firms need an adaptive approach to the local market. This is especially significant in the so-called emerging markets.

Key words: innovation, internationalisation, furniture sector, case studies, market orientation, Italian SMEs

### Introduction

Innovation represents a strategic driver for the development of firms, as well as one of today's most studied topics in management research. Innovation is a complex multidimensional concept (OECD, 2005; Löfgren, 2014) with meaning reaching far beyond the technological-productive barriers and must be more broadly interpreted. Sawhney, Wolcott, and Arroniz (2006) affirm that "business innovation is far broader in scope than product or technological innovation" (p. 28), emphasising the firm's need to opt for a holistic view of innovation by operating on all levels of the business model. In so doing, managers can prevent the myopic perspective that causes companies within a sector to innovate in the same ways—e.g. along the same dimension as product one—, resulting in a progressive erosion of their competitive advantages (Sawhaney et al., 2006).



Several studies underline how innovative firms are the most successful in the market (Bhaskaran, 2006; Chesbrough, 2007). Others have suggested an uncertain relationship owing to the difficulty of benefitting from innovation (Rosenbusch et al., 2011).

In recent years, various scholars have underlined the existence of a positive link between innovation and internationalisation that influence a firm's performance and success (Kafouros et al., 2008; D'Angelo, 2010; Cassiman e Golovko, 2011; Lecerf, 2012; Yu and Si, 2012; Hagen, Denicolai and Zucchella, 2014; Rask, 2014). The relation between innovation and internationalisation, key drivers in a firm's development, has gained remarkable relevance in management literature, which points out the complexity and nonlinearity of this relationship. Some authors support the idea that innovation drives a firm's international development (Filatotchev and Piesse, 2009; Rammer and Schmiele, 2008; Cassiman and Golovko. 2011: Rovira Nordman and Tolstov. 2011: Louart. 2012: Lamotte and Colovic, 2013). Others suggest that internationalisation is "expanding across country borders into geographic locations that are new to the firm" (Hitt et al., 1994, p. 298), thereby functioning as a booster of innovation (Rogers, 2004; Kafouros et al., 2008; Uzkurt et al., 2012; Boso et al., 2013). Uzkurt et al. (2012) believe that changes in the market. demand and technology registered in foreign countries are what foster innovation. From this perspective, to capture the fruits of innovation, firms must have sufficient internationalisation - be active in many markets - (Kafouros et al., 2008). Recently, some contributors agreed that a biunivocal relation where innovation and internationalisation nourishing one another in a virtuous process can contribute to a firm's success (Rovira Nordman and Tolstoy, 2011; Altomonte et al., 2013; Halilem, 2014).

The relevance of that relationship is very apparent in the case of emerging markets, where empirical evidence reveals the failure of several market-entering decisions due, above all, to the inability of firms to adapt their innovation strategies to the economical and institutional features of foreign markets (Ramamurti, 2004). A consideration of the context brings attention to the role of market orientation in innovation (Lukas and Ferrell, 2000). The literature suggests that market-oriented behaviour leads to greater innovation and success with new products. According to Jaworski and Kohli (1993), market orientation implies carrying out new actions to respond to market conditions. Consequently, as pointed out in recent studies (Agarwal, Erramill and Dev, 2003), market-oriented behaviour affects innovation; that is, companies that are more market-oriented are more innovative. In the end, both market orientation and innovation lead to business success (Kűster and Vila, 2011).

In summary, several studies pointed out the existence of a complex relationship between innovation and internationalisation, influenced by different firm-, industry- and market-specific factors, thereby suggesting the need for further research.

In this framework, our study<sup>10</sup> contributes by integrating literature with a deeper view of the multifaceted phenomenon of innovation and its link with internationalisation in the specific context of Italian furniture SMEs. Considering the purpose of this work, we conducted a qualitative multiple-case study of four Italian furniture firms. The furniture sector is one of the leading branches of Italian manufacturing firms and is characterized by a great propulsion to innovation–especially in products/processes–and internationalisation. This is manifested in the sector's consolidation of its presence in mature markets and its entrance

<sup>&</sup>lt;sup>10</sup> This study is part of a wider research project supported by the University of Trieste – Italy – under the FRA 2012 Program.



and development in new markets and business areas. Nevertheless, the furniture sector is also where the recent international crisis and growing competitive pressures created by factors such as the low cost Chinese market (World Furniture Outlook, 2013) are forcing both large and small-medium firms to be more internationally oriented and to invest in new value for customers to compete in the long term (Pegan and Sambri, 2009). From this perspective, it has become crucial for a furniture firm to avoid the myopia that results from considering innovation as merely synonymous with new products, which can lead to the erosion of competitive advantages, even if consolidated.

### Theoretical framework

Innovation maintains its complexity despite that it is one of the most studied topics in management literature today (Gronum, Verreynne and Kastelle, 2012). Since the time of Schumpeter's (1942) pioneering contributions, innovation has been considered a multifaceted concept, whose meaning extends well beyond the narrow boundaries of technological innovation. Several literature proposals on this topic have attempted to define innovation and its taxonomy. All have recognised that innovating pertains not only—and not mostly—to the domain of technology, but, increasingly, to domains such as marketing, operations management, supply chain management and combinations of these. From this perspective, some authors (Daft, 1978; Kimberly and Evanisko, 1981; Damanpour, 1987 and 1991) introduced the distinction between administrative and technical innovations. Whereas the former—technical—refers to the launch of new products in the market and the adoption of new production processes to increase efficiency, the latter—administrative—refers to new procedures, policies and organisational forms.

More recently, the Oslo Manual (OECD, 2005, p.46) defined innovation as "the implementation of a new or significantly improved product—good or service—, or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations".

Another interesting contribution, coming from Sawhney, Wolcott, and Arroniz (2006), defines business innovation as "the creation of substantial new value for customers and the firm by creatively changing one or more dimensions of the business system" (p. 29). Whereas managers might consider innovation as synonymous with new product development or traditional research and development-R&D-, the authors consider that "such myopia can lead to the systematic erosion of competitive advantage, resulting in firms within an industry looking more similar to each other over time". In contrast, business innovation is new value-not only new things-; it comes in many flavours and is systematic. A new tool, called "innovation radar" by the authors, relates all the dimensions of business innovation, anchored by the offerings a company creates-what-, the customer it serveswho-, the processes it employs-how-and the points of presence it uses to take its offerings to market-where-(Sawhney et al., 2006, p. 30). There are 12 dimensions: 1 Offerings-develop innovative new products or services-; 2 Platform-use common components or building blocks to create derivative offerings-; 3 Solutions-create integrated and customised offerings that solve customer problems end-to-end-; 4 Customers-discover unmet customer needs or identify underserved customer segments-; 5 Customer experience-redesign customer interactions across all touch points and all moments of contact-: 6 Value capture-redefine how the company gets paid or create innovative new revenue streams-; 7 Processes-redesign core operating processes to improve efficiency and effectiveness-; 8 Organisation-change form, function or activity scope of the firm-; 9 Supply chain-think differently about sourcing and fulfilment-; 10



Presence—create new distribution channels or innovative points of presence, sales and consumption; 11 Networking—create network-centric intelligent and integrated offerings—; and 12 Brand—take a brand into new domains—. Recently also Rask (2014) has pointed out the relevance of the concept of business model innovation which should be considered more as the creation or reinvention of the business itself rather than a matter of technological aspects (p.147).

Independent of the type of innovation, several studies show that innovative companies are more successful. First, according to some authors (Cooper and Kleinschmidt, 1995; Poon and MacPherson, 2005; Bhaskaran, 2006) they achieve better business results, such as greater market shares and profits. Second, innovative companies stand out on qualitative measures, such as increased reputation, customer loyalty and relative attractiveness of products (Kuster and Vila, 2011). In any case, the relationship between innovation and economic performance is still an open issue in the international literature (Garcia and Calantone, 2002). Whereas several studies highlight the positive effect of innovation on performance (Hall and Mairesse, 1995; Adams and Jaffe, 1996; Chesbrough, 2007), other studies point out that innovation is not sufficient to garner economic and competitive success, suggesting an uncertain relationship (Rosenbusch et al., 2011).

Why do innovative companies show different economic performance? In recent decades, the competitive landscape has changed consistently for firms in all industries. The globalisation of the business environment and the evolution of technologies have pushed all types of firms to face with the international competition scenario (traditionally considered realm of large companies) and to adapt continuously and considerably in different countries and markets (Dana, Etemad and Wright, 1999; Etemad, Wright and Dana, 2001; Wright and Dana, 2003). Consequently, coupling strategic agility with the capability to innovate has become compulsory (Doz and Kosonen, 2010).

Some authors contribute to the discussion by pointing out the existence of strong strategic synergies between innovation and internationalisation processes, which also affect a company's competitive success (Kotabe et al., 2002; Kafouros et al., 2008; Onetti et al., 2010; Cassiman and Golovko, 2011; Küster and Vila, 2011; Lecerf, 2012; Louart and Martin, 2012; Yu and Si, 2012). The literature also recognises a complex and still unclear relationship between them (Caves, 1996; Küster and Vila, 2011; Lecerf, 2012; Louart, 2012; Altomonte et al., 2013; Esteve-Perez and Rodriguez, 2013 Kotabe, 1990; Granstrand et al., 1993; Cassiman and Golvko, 2011; Ebersberger and Herstad, 2013).

According to some authors, innovation drives internationalisation from different perspectives (Filatotchev and Piesse, 2009; Ripolles Melià et al., 2010; Cassiman and Glolvko, 2011; Rovira Nordman and Tolstoy, 2011; Louart and Martin, 2012; Lamotte and Colovic, 2013). Innovation, especially of the technological variety, can push the firm into international markets, thereby strengthening its expertise and ability to enter new global networks. Further, product innovation could incentivize firms to enter international markets to make the demand for new products grow—to place distribution and development costs on a wider sales volume—or to exploit the innovative potentialities in other geographical markets more efficiently (Rovira Nordman and Tolstoy, 2011). Others highlight how innovation represents an important source of competitive advantage in the global market, also for SMEs with niche strategies (Louart and Martin, 2012). Finally, innovation could promote internationalisation, encouraging exportations and success in international markets (D'Angelo, 2010; Chetty and Stangl, 2010; Löfgren, 2014), even in terms of entrance velocity (Ripolles Melià et al., 2010).



According to other authors (Rogers, 2004; Kafouros et al., 2008; Uzkurt et al., 2012) internationalisation boosts innovation. A substantial degree of internationalisation creates new opportunities for foreign partners to collect innovation know-how, or creates the need to adapt to the foreign market/country (Kafouros et al., 2008; Lecerf, 2012). Uzkurt et al. (2012) demonstrated that the changes in market demand and technology registered in a foreign country can have an incentivizing effect on innovation. The comparison to competitive, dynamic exportation markets (Rogers, 2004; Boso et al., 2013) would increase the propulsion to the company's innovation (Uzkurt et al., 2012). The consideration of the role played by market-specific factors in innovation development, such as the local socio-economic context, is not recent. For example, Schumpeter (1934) highlighted the role of context in innovation. Furthermore, according to the literature on technological capabilities in developing countries, other authors (Kim, 1980; Dahlman et al., 1987; Lall, 1992) investigated the sensitivity of innovation to local conditions. From another point of view, the literature on social capabilities (Abramovitz, 1986) also proposed the need to develop favourable conditions for innovation (Srholec, 2011). From this perspective, empirical evidence from emerging markets reveals the failure of several market-entering decisions, primarily due to the inability of firms to adapt their innovation strategies to the economical and institutional features of foreign markets (Ramamurti, 2000, 2004).

By considering the importance of the context-specific factors, the role of market orientation in innovation is revealed (Lukas and Ferrell, 2000). The literature suggests that market-oriented behaviour leads to more innovation and greater success with new products. In particular, there is a positive relation between the orientation to markets and factors, such as the propulsion to innovate (Kuster and Vila, 2011), new product performance (Slater and Narver, 1994) and the activities related to development. According to Jaworski and Kohli (1993), market orientation implies carrying out new actions to respond to market conditions. Consequently, as pointed out in recent studies (Agarwal, Erramill and Dev, 2003), market-oriented behaviour has an impact on innovation; that is, companies that are more market-oriented are more innovative. In the end, both market orientation and innovation lead to business success (Kűster and Vila, 2011). It is noteworthy that the definition of innovation in several studies fits with market orientation (Damanpour, 1991; O'Cass and Weerawardena, 2009).

Recently, some scholars have emphasised the bidirectional ways that innovation and internationalisation contribute to a company's success (Rovira Nordamn and Tolstoy, 2011; Altomonte et al., 2013; Halilem, 2014). The innovation, considered product flexibility, and the internationalisation, considered a continuous interaction between foreign consumers, would be concomitant and determinant processes for the firm's strategic success (Rovira Nordman and Tolstoy, 2011). Firms with foreign consumer contacts are forced to adopt innovative product strategies; from their side, those that develop new products are incentivized to enter new markets (Rovira Nordman and Tolstoy, 2011). Halilem, Amara and Landry (2014) also support the idea of a complex virtuous circle where innovation and internationalisation influence one another. The need for adaptation to a specific foreign context could lead to innovation that is repeatable in different markets. On the other hand, innovation—along all its dimensions—could facilitate the internationalisation process, giving companies greater effectiveness and efficiency when competing in specific foreign markets.

Lately, Rask (2014) has underlined the similarity between business model innovation - "business models can be innovated by discovering different business in an existing



business", p.148 - and the understanding of internationalisation of the firm as innovation decision process (Andersen, 1993). The author has suggested the relevance to focus on internationalisation process to understand more deeply a business innovation model. He has also pointed out the scarcity of studies on the "link between the field of internationalisation of the firm and that of business model innovation" (Rask, 2014; p. 148).

### Research Questions and Methods

In this framework, our paper aims to improve understanding of the relationship between innovation and internationalisation for a specific category of firms, Italian SMEs, in the furniture sector. The following research questions were developed:

RQ1: What does innovation mean, and what are its main dimensions from a company's perspective?

RQ2: What do managers think of the relationship between innovation and internationalisation?

To answer to the research questions, a qualitative study was undertaken using a multiple-case method (Eisenhardt, 1989; Yin, 2009). The objective was to deeply explore the existing relationship between innovation and internationalisation through systematic work to find a match between theory and practice (Eisenhardt, 1989; Dubois and Gadde, 2002; Strauss and Corbin, 1990; Yin, 2011). As different scholars have agreed, the case study approach allows a detailed examination of a specific phenomenon or other related events (Yin, 1984; Gummesson, 2000; Ojasalo, 2012). This approach also offers the advantage of a holistic view. This method is very flexible because case studies can be descriptive, exploratory or explanatory. Furthermore, according to Eisenhardt (1991), multiple cases become powerful tools in building theories, because they allow replication of other singular cases, as well as extension of them. Replication means that single cases can be used to help researchers simplify pattern recognition. Extension refers to the use of multiple cases to create a complex theory, since different cases often reveal complementary aspects of the same phenomenon.

This paper is based on an analysis of the data collected in a specific industry, house furnishings by Italian firms. This sector was selected because it is one of the leading branches of Italian manufacturing and carries high status (the emblem made in Italy) throughout the world<sup>11</sup>. This remains true despite that the industry has been confronted with changing scenarios—the stagnation of internal demand<sup>12</sup> and the growing competitive pressure from new producers, such as China<sup>13</sup>—that have threatened to reduce the market share of Italian firms in the foreign markets over the last few years. In this more complex and global competitive field, the business innovation of a SME and its capability to increase its presence in the international markets through an adaptation approach (Wright and Dana, 2003) has become a strategic imperative for long-term survival (World Furniture

<sup>&</sup>lt;sup>11</sup> After the USA –19%–, Italy –8%– represents the main furnishings producer in the seven main industrial economies of the world that together cover 47% of the total production worldwide. Added together, the production in all the developed countries covers 61% of the total (World Furniture Outlook, 2013).

<sup>&</sup>lt;sup>12</sup> The international crisis, from 2007 until now, has reduced national consumptions by 30% (Il Sole 24 Ore, 2013).

<sup>&</sup>lt;sup>13</sup> Production in emerging countries covers 39% of the total, whereas China holds 20%, followed by Poland, Brazil and Vietnam. These countries have seen their production increase thanks to specific investments in specialized structures, designed and built to promote exportation (World Furniture Outlook, 2013).



Outlook 2013; Vianelli et al., 2012). We investigated four Italian furniture firms that have operated for several years in foreign markets and through commercial/administrative branches and that represent different company sizes and internationalisation approaches. In Table 1, we summarise the main features of the cases<sup>14</sup>.

The qualitative research was developed in two main phases. In the first phase, we analysed single cases<sup>15</sup>. In the second phase, we conducted a comparative study of the different cases to spot common patterns. In this paper, we used primary data as the principal source of information for the case study method. We collected primary data through in-depth interviews. In early 2014, interviews were carried out in different phases with different managers in charge of innovation and internationalisation processes at the four companies. The interviews lasted 60–90 minutes. They were taped and transcribed verbatim. We then shared this text with the managers to verify the content. Our coding scheme was driven by the data and theory. The next section will present the interview data that were organised in an attempt to match theory with practice.

Turnover Foreign Commercial S a 1 e Number of Number of Points Core Business 2013 Sales/Total Administrative **Employees** Countries Sales-%) Owned Millions € Foreign Branches Firm C 130 65% 600 **Furniture** Yes Yes countries Padding and seats for high Firm M 30 80% 146 Yes No quality countries furnishing 180 1,200 Yes Firm S 78% Kitchens Yes countries Firm V 35 37% 165 Kitchens No NA No

Table 1: Main characteristics of the four Italian furniture firms

Findings and discussion of case studies based on interview data

To answer the first research question—what does innovation mean and what its main dimensions are from a company's perspective?—we propose a definition of innovation given by the interviewed firms and a derivation of the main dimensions that have been the investment objectives of the same firms over the last 5 years—see Tables 2 and 3—. Table 2 shows that companies proposed different definitions, showing clear links to their individual businesses.

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<sup>&</sup>lt;sup>14</sup> In the presentation of the results, there is only the identifying letter and not the complete denomination of the interviewed firm.

<sup>&</sup>lt;sup>15</sup> In this paper, we pay attention only to the results that emerged from the second phase of the study.



Table 2: Definition of innovation from company perspectives

	Definition of Innovation
C a s e	"I can imagine innovation as a show schedule of supporting tools that are needed to make things happen" "innovation is shifting from selling products, most of all tables and chairs, to selling branded spaces."
Case M	"Innovation in the furniture industry is mainly characterized by the use of materials that are already known in new ways rather than researching new ones."
	"In the furnishing sector, there's the presence of a low surplus value from a technological point of view." "Innovation is refinement. For example, a carpet used as upholstery because the director decided to try it."
	"Proposing new products is a standard of our sector; however, some remain only proposals and others become catalogue products."
	"Giving a definition for innovation is difficult. For me, innovation often means going back to past values."
Case S	"For innovation we aim for change/evolution/improvement. We changed our group structure, we created platforms of group products that gave us the opportunity for a new, lower price positioning. Innovation is tied to the product and process. Those are the two things that have been in sync with the market changes and targets, as well as the client/consumer."
C a s e V	"In the furnishing field, innovation means innovation of materials materials that are used in kitchens or as furnishings, innovation of shape and there's always the innovation that is linked new ergonomics in the kitchen"

In cases C and S, innovating is seen as an activity that pertains more to domains such as marketing, operations management, and supply chain management and combinations of them, in agreement with the prevailing literature (Tidd and Bessant, 2009). In cases M and V, however, the interviewed subjects placed special importance on the technological aspects, such as materials, shape, usage functions and ergonomic features. The analysis of the definition from the companies' points of view underlined that innovation is a multifaceted concept. In any case, it is not easy to define, as M said: "Giving a definition for innovation is difficult".

After a spontaneous request for a definition of innovation, the interviewees were asked to provide a more specific definition of the dimensions of their companies' last five years of innovative efforts, in accordance with Sawhney et al. (2006). The managers gave the following ranking: Case C, all dimensions; Case M, offering, networking, organisation, brand; Case S, all dimensions; Case V, offering, solutions, processes, organisation.

In most cases, the dimensions linked to offering-what-turned out to be the most relevant aspects of the innovation radar selected from the interviewed mangers, not only in terms of innovation of the product but also in terms of real furnishing solutions proposed to satisfy the changing needs of the market. However, for creating new value for customers, there is agreement on the primary importance of innovating via organisational internal or external processes. This type of innovation can improve effectiveness and efficiency, giving the company a chance to meet the challenges of a more complex and competitive market. Especially for the two larger companies-cases C and S-, it surfaced that "managers think holistically in terms of all possible dimensions through which their organisation can innovate" (Sawhney et al., 2006, p. 29). The strategic relevance of investing in branding in such a fragmented sector represents a crucial aspect of operating successfully in foreign markets. It is noteworthy how, in the case of firm M, the process revisions were introduced primarily as new value given to marketing, where the core aim was to make brand equity. However, for cases C and S, the co-creation of the brand value all along the supply chain represented a strategic imperative that is nowadays also consolidated abroad. Indeed, these companies are used to proposing innovative furniture solutions that are then offered



to the customers in branded points of presence, where the distinctive value of made in Italy enhances their product offering (Pegan, Vianelli, and de Luca, 2013).

With regard to the second research question—What do managers think of the relationship between innovation and internationalisation?—, the interview data pointed out different outlooks on the relationship. Table 3 reveals that the relationship between innovation and internationalisation is considered bidirectional in cases C and S.

Table 3: Relationship between innovation and internationalisation

	About the relationship between innovation/internationalisation
Case C	"It's a symbiotic relationan egg-chicken relation. It is difficult to say if it is becoming international that has boosted innovation or vice versa."
	"It's hard to define which is the cause and which is the effectthe two things nourish one another."
Case S	"To me it is bidirectionalthere is a tension to internationalisation that is business-like, and this
	nourishes the will to innovate."
Case M	"The foreign market –so internationalisation–has forced us to change, to renew, to stay grounded to
	the concept that, if you adapt yourself you survive, otherwise you exit from the market."
Case V	"You cannot internationalise without innovation but I believe that the world is so globalised that
	the needs of a Japanese or an American is the same as that of an Italian. For this reason, it is not
	globalisation that affects innovation. I can't see that the two things linked"

The managers emphasised that it is difficult to determine the cause and the effect; in the real global context, these two processes are strongly interrelated. The interviewed managers, according to what the literature emphasised (Rovira Nordman and Tolstoy, 2011; Altomonte et al., 2013; Halilem, 2014) agreed on the existence of a bidirectional relationship between innovation and internationalisation processes. Innovation fosters the entrance into the international markets and then strengthens the company's presence therein, whereas the constant interaction with foreign demand highlights the need to innovate.

The analysis of the other two cases underlined different views. In one case—M—, internationalisation represented a driver for innovation. Even if the launch of new products constituted a standard of the furniture sector, manager M felt that the role of the specific foreign markets advanced the innovation process. In this case, according to some scholars (Rogers, 2004; Kafouros et al., 2008; Uzkurt et al., 2012; Boso et al., 2013) case M has emphasised how internationalisation, by now a strategic imperative, imposes the need for renovation and adapting to changes in single local contexts. For example, a law in a foreign market that prohibits the use of specific materials could affect the firm's innovation process.

In case V, the manager supported the idea that, without innovation, internationalisation is impossible. Here, it is innovation in terms of materials, ways the kitchen is used, that positively affect the geographic expansion of the firm. Such a perspective is in accordance with the literature highlighting the role of innovation as a determinant for international competitiveness and entrance speed. In other words, innovation is a factor that supports internationalisation and promotes exportations and success in international markets (Knight and Cavusgil, 2004; O'Cass and Weerardena, 2009).

In this general framework on the relationship between innovation and internationalisation, it noteworthy that, from the analysed firms' perspectives, this relationship is clarified by studying the possible interactions with a single key dimension of innovation. Table 4 shows



how managers C and V believed that the creation of a new product or service valued by customers represented a key driver of the internationalisation process of a firm. The decision to expand or enter into new markets, for all the participating firms, drives business innovation, especially along their core operating processes, so that they might improve efficiency. The interviewed managers agreed that a firm could only take advantage of foreign market opportunities if the potential for innovation exists. Case V, in agreement with Sawhney et al. (2006), underlines the fact that an organisational innovation often involves a redefinition of people's roles and responsibilities.

The challenge of internationalisation and the establishment of new and stronger competition leads to increased investments in branding and in the creation of new points of presence that boost brand awareness among foreign intermediaries and final customers. As suggested by the managers, these investments represent a strategic tool for competing successfully in the furniture industry, where the final consumer cannot perceive the added value of the made in Italy products (Pegan and Sambri, 2009; de Luca and Pegan, 2013). At the same time, the study of the relation also showed the critical effect of specific foreign markets on innovation-Table 5-. The experience of company S indicates how this relationship is linked to the different markets in this study. The complexity of a furniture product that enters Eastern customers' homes, with their very different cultures, emphasises the importance of adopting a localized approach (Alon and Jaffe, 2013; Hollensen, 2014). This also supports the idea that in the global business environment managers of large and small firms will face the need to improve intercultural awareness and skills as never before. In this way they will able to interface effectively with suppliers and customers in other national cultures (Wright and Dana, 2003). In other words, an adaptive approach to the local market is needed, so that innovation is achieved in a way specific to that market and along different dimensions, most of all in the so-called emerging markets, such as India. In the case of firm M, the driving role that markets such as India, Japan and Brazil have in stimulating business innovation along different dimensions is clear; especially those anchored to the organisation process-according to the CAGE distance framework, these countries are very different from the western ones-. This supports other studies that have already emphasised the importance of market changes and the demand and technology of a particular foreign country in favouring innovation (Uzkurt et al., 2012). Further, these results seem to support the idea that, in agreement with Jaworski and Kohli (1993), companies that are more market-oriented might be more innovative (Agarwaal et al., 2003). Market orientation implies carrying out new actions to respond to different market conditions. It is important to note that, according to the interviewees, another crucial context factor in the relationship between innovation and internationalisation is the international crisis. On this issue, case S pointed out how the same crisis has been a great opportunity to innovate or improve business:

The positive aspect of the crisis is that it got minds moving, got will moving, the duty recognise that what was good before is no longer so. If you remain fixed there you are 'dead'; each delay to change meets a competitor that is quicker, better at changing... we need to eliminate everything that is in excess, and improve the product's quality. You can no longer afford inefficiencies.

In the international markets, the economic crisis sped the change of intermediaries' and end customers' expectations; that is, of more value for money—not only lower prices but also better services. To create new value for foreign customers, a furniture firm should be very innovative in this department. This makes it easier to erase the negative image of Italian furniture firms that are expanding their services abroad—case S—. To sum up, most



of the cases show that context-also as macro environment-greatly influences the relationship between innovation and internationalisation and their shared role in a firm's competitive success.

From the data, it is interesting to underline how a relevant aspect highlighted by the interviewed managers is constituted by the different award/value for innovation that different markets/consumers would be interested to recognise to the Italian furniture SMEs. What is relevant for all cases is the need to understand the operational context. For example, case S said,

There are markets where there's a price for innovation, for the product's design, for the exclusivity of the product, for the differentiation of the product. For example, in Russia, we sell with a premium price that is important because you sell the brand, the image, the product. You only sell high image products so the marginality is very high.

In other markets, such as India, the same manager said that the customer is not always willing to place more value on innovation:

If you enter a market where the client has a price level for the product, you can be as innovative as you want but you cannot go over a certain price level or you will not succeed in selling. So marginality is also linked to this... in India, innovation cannot cost too much; we are having great developments but with an average marginality.

Similarly, manager V asserted that:

There is a relation between the type of innovation and the kind of market. For example, in China we struggle. There is a type of primary request that the kitchen be a place for the preparation and production of food. Whereas, in some other countries, we satisfy more developed demands that are cultural, ecological, aesthetic requirements, that are absent in some countries.

### Conclusion

This work, which focuses on the Italian furniture industry, contributes to the theoretical managerial discussion giving a deeper view into the multifaceted phenomena of innovation and its complex relationship with internationalisation. The case studies revealed the following main considerations and managerial implications.

Managers proposed different interpretations of innovation. Some managers emphasised a holistic perspective of innovation, regarding all the different key dimensions of the entire business model. Other managers gave a more limited interpretation, focusing on product and technological aspects. However, all the managers recognised the risk of holding a myopic view (Sawhaney et al., 2006), such as continuing to focus on the made in Italy design and uniqueness of furniture products. In particular, most of the managers underlined the strategic relevance of innovating along the brand dimension. The establishment of new and stronger global competition led to increased investments in branding and the creation of new points of presence that could boost brand awareness of all foreign intermediaries and final customers (Pegan et al., 2013). As suggested by the managers, these investments represent a strategic tool for competing successfully in such a fragmented industry, where the final consumer cannot perceive the added value of the made in Italy products (Vianelli, et al., 2012).



For the managers, the relationship between innovation and internationalisation is strategic and often mutually dependent. However, different firms' approaches to innovation and market-orientation, industry–furniture–and market-specific socio-economic and legal frameworks—the operational context—affect the relationship. Product Innovation, favouring entrance and presence in international markets, represented a key driver of the internationalisation processes of our firms. At the same time, the constant interaction with foreign demand presented the need for further innovation (Uzkurt et al., 2012) along different business innovation dimensions—processes, organisational, points of presence. This study points out the critical role of the market orientation (Jaworsky and Kohli, 1993; Küster and Vila, 2011) of a firm and underlines the importance of the adaptation versus standardisation dilemma (Alon et al., 2013; Hollensen, 2014). Indeed, the need for adaptation to a specific foreign context could lead to an innovation that is repeatable in different markets. In the globalised economy local and regional cultural differences are becoming more pronounced than before, meaning an increase in the need for all firms to improve intercultural skills of their managers (Wright and Dana, 2003; Dana et al., 2008).

Table 4: Type of relationship and its interaction with key dimensions of innovation

Dimensions of	Innovation Drives	Internationalisation Drives Innovation
Innovation	Internationalisation	
	The only way to differentiate and	
	to differentiate ourselves is to offer	
	products that are more innovative,	
	different, more beautiful, that solve	
	problems so we want most of all	
	innovation of the product." –S–	
	"Products are successful because	
	you designed them in the right way,	
	because you found the proper	
	shape, and you found clients that	
	fall in love, want your products in	
	their shopsin Moscow rather than	
	New York; clearly if we talk about	
	innovation of products, this is the	
WHAT	innovation that gives you the	
(Offering,		
Platform,		
Solutions)	us was inserting glass as a kitchen	
	material for worktops, shutters and	
	surfaces. Glass is a noble material	
	with several features that that made	
	it a great success."—V—. "We designed an opening system	
	that lets us hide the kitchen area	
	very quickly, because the general	
	trend worldwide is to merge the	
	kitchen with the day area of the	
	house, and this is a mega trend of	
	modern architecture, which is true	
	in America, Europe, Asia,	
	everywhere." –V–	
	· · · · · · · · · · · · · · · · · · ·	<u> </u>



HOW Process, Organisation, Supply Chain	"We had to project a new product/process to enter in specific markets, because otherwise the delivery times would have been too long, the transportation costs and the duties too high."—S—  "If you want to enter some markets and you don't have something different, it becomes difficult to set the price, if we talk about retail. We also had to innovate in terms of production process/composition of the product to succeed in entering in other markets."—S—  "Being in foreign markets necessitated the renewal of our process capacity for services, the support that we give to clients."—C—  "What I do is deal with the area of local partners where there's a lot of relationship and less direct sales. It is important to create a relation that can convey my brand and, therefore, my product."—M—  "The organisational innovation has been very influential. For example, we only hire people who speak at least English. We didn't do this beforeWe innovated several things in the company to face internationalisation"—V—
WHERE (Presence, Brand, Networking)	"In the last years we have been developing in terms of service, with great emphasis on the international client, in the sense that we invested, sometimes directly other times indirectly, with people who speak the local language, for example, in Russia and Germany."—V—"Let's say that the innovation of shifting from selling products, most of all tables and chairs, to sell branded spaces has redefined the way we are present in the foreign markets."—C— "In opening mono-brand shops, we had to take into consideration competitors that where non-producers or not only producer but also suppliers or retailers. So our internal competences had to change."—C— "When we talk about vision and mission we want to become more life-style-oriented than we are now so that the brand becomes strong enough to be recognised all over the world. With the brand itself, we have been working from this perspective for six months."—M—
WHO (Customer, C. Experience, Value Capture)	"The change in the luxe sector demanded a resegmentation of the clients. Not only it can be said 'he has the money to buy': it is necessary to have more information on the segment."—M— "We are still changing the way we make sale points; previously we had an expositive concept, now the world is different and the clients are different too."—V—



# Table 5: Role of the local contexts in driving business Innovation

	Dimensions of Innovation			
Foreign Markets	Solutions)	HOW (Process, Organisation, Supply Chain)	WHERE (Presence, Brand, Networking)	WHO (Customer, C. Experience, Value Capture)
China	"For markets such as India and China, we developed a project system of dealing with the product in a disassembled way to succeed in delivering the products in short times and to deal with transportation costs efficiently."—S— " Even in China it's complicated to import. So for efficiency and fewer problems, we make aluminium structures."—M—			"The Chinese brought the market to a lower level, but they have rebalanced it, asking us to revaluate payment procedures."—M—
China/ India	"If we talk about India there is a type of kitchen that is done in a specific way because a specific type of cooking is done. Dedicated spaces for the kitchen are needed that are not consistent with our technical solutions so we have to find electrical appliances; we created specific appliances and devices there they have rice keepers of 50 kilos that need to be kept at a precise humidity and you have to find solutions for this"—S—			
Singapore		"We are reflecting on Singapore, to establish an office that supports the orders collection, the sale point assistance for all the Asiatic south-east because our product, every kitchen that we do, is different from the other; it's an extremely customised product."—V—	in Singapore, that invest in spaces of branded	
Africa	"Knowing that exporting wood in Africa is not possible due to the high taxes, for me, the technological innovation is in the introduction of aluminium structures for some products. Adaptation and innovation for us has been referred to Africa that introduced this type of development. In Africa and China, importation is complicated so we make aluminium structures."—M—		"In Africa a distribution network doesn't exist, I need a Lebanese who create a network and the contact. He has an interest and we have to leave the 50% of deal on the markup."—M—	



pan/ razil	"The consciousness of as Japan and consumers is high. Objections brazil, that are extremely closed product doesn't meet the target—chair with air bubble—. For them it is important to know why. The Japanese market makes you implement a process innovation. They force you to make improvements, and if you can, you use them in other places."—M—  In countries such as Japan and Brazil, that are extremely closed markets with entry boundaries, duties or a controller distribution, we can evaluate license en sed collaborations of product or brand, but we haven't acted yet."—V—
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On the other hand, innovation, in all its dimensions, could facilitate the internationalisation process, allowing the firm greater effectiveness and efficiency when competing in specific foreign markets. If innovation means to create new value and not only new things, an adaptive approach to the local market is needed, whereby innovation is achieved in ways specific to each market and along different dimensions. This is especially significant in the so-called emerging markets, such as India and Africa, which are very different from the western markets, and in customers' willingness to pay a premium price for innovation. From this perspective, innovation and internationalisation can make a virtuous circle, positively influencing a company's competitive results.

Since the relationship between innovation and internationalisation is gaining relevance from academic and managerial points of view, it would be useful to do further research considering other firms from different industries. Future studies should more deeply investigate the market-oriented attitudes and behaviours of companies, as well as the different phases of the internationalisation process. Following this qualitative study, a quantitative approach could be useful to shed light on the nature of the relationship between innovation and internationalisation in a larger sample of companies.

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# Empirical Analysis of the Relevance of Intangible Assets in IFRS Balance Sheets of European Companies

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#### Abstract

Intangible assets are important for many companies in today's business environment. This empirical research<sup>16</sup> contributes to the ongoing discussion regarding this importance by analyzing the quantitative relevance of intangibles in European companies' IFRS balance sheets, represented by the share of a company's intangible assets compared to its total assets. It analyzes 600 of the most important European companies from 24 countries across 19 industries along three key dimensions: industry, size, and geography.

In 2012, intangible assets accounted for a median share of 13.4% of a company's total assets (average share: 19.7%). However, this share varies considerably by industry: it ranges from less than 1% for real estate enterprises (0.1%) and banks (0.7%) to more than a third of total assets for health care companies (37.1%) and media corporations (41.3%). The results of three analyses highlight that there are considerable differences between industries with regard to the observable share of intangibles, and, consequently, that the industry in which an enterprise operates does significantly impact the relevance of intangibles from a quantitative accounting perspective. With regard to company size, a marginal negative relationship (-0.10) is observed between a company's revenues and its share of intangible assets; however, there is no observable linear relationship between intangibles share and market capitalization The empirical analysis also yields that for Poland and Russia the observed shares of intangible assets (0.8% and 1.2%) differ statistically significantly from the 'expected' shares (6.7% and 9.6%) given their respective industry compositions, while for all other analyzed countries the intangibles share does not deviate statistically significantly from the 'expected' share given the country's industry structure.

Key words: Accounting, balance sheet, consolidated accounts, empirical research, European companies, IFRS, intangible assets, relevance of intangibles

### Introduction

Intangibles are a highly relevant aspect of today's business. For many companies they are even seen as the main value creator (Zéghal/Maaloul, 2011). Business-relevant intangibles exist in a huge variety of types, ranging from rather easy-to-grasp, concrete assets – for instance patents, licenses, or software – to elusive, hardly quantifiable aspects, for example knowledge-based resources or the skills and experience of employees. However, in contrast to the 'qualitative' relevance of intangibles, which has already received considerable attention, both from a scientific perspective as well as from a business point of view (Möller et al, 2009), several 'quantitative' aspects, in particular the empirical relevance of the resulting intangible assets on a company's balance sheet from a

<sup>&</sup>lt;sup>16</sup> This research was initially made public during the XIII International Conference 2014 of the Society for Global Business & Economic Development (SGBED) hosted at the Università Politecnica delle Marche, Ancona, Italy, in July 2014.



quantitative accounting perspective, have been largely neglected so far. This paper addresses exactly this aspect of intangible assets.

The overall research goal of this paper is to contribute to the discussion regarding the role and relevance of intangibles by depicting, from an empirical perspective, the quantitative relevance of intangibles in European companies' balance sheets, represented by the share of a company's intangible assets compared to its total assets. In particular, this research aims to explore if there is a relationship between a company's size and the observed relative importance of intangible assets, whether there are any industry-specific differences in the share of intangible assets, and if there are any observable country-specific influences on the share of intangible assets.

The objects for analysis of this empirical research are the intangible assets specified in the balance sheets of the annual consolidated accounts of the most important publicly traded European enterprises. However, given that there is no universal, unique framework for measuring intangibles (Levy/Duffey, 2007; Palacios/Galván, 2007), the treatment of intangible assets – and thus its absolute and relative size in the balance sheet – is strongly influenced by the underlying accounting standard (Stolowy/Jeny-Cazavan, 2001). As a consequence, this paper focuses only on companies using International Financial Reporting Standards (IAS/IFRS) – which is the vast majority of listed European companies - in order to ensure comparability and stability of the base data and validity of the findings. Due to general limitations in quantifying and evaluating intangible assets for accounting purposes (Völckner/Pirchegger, 2006) and because some intangibles must not be capitalized in the balance sheet at all, in particular selected internally generated intangibles (Vašek/Filinger, 2013), the relative share of intangible assets in the balance sheet is not a perfect measure for the relevance of intangibles. However, the intangibles share serves as best-available proxy and does provide a very good indication for the quantitative relevance from an empirical accounting perspective.

Research questions and structure of the paper

The structure of this empirical research paper consists of three parts: the first part describes how the relevant data set is derived, provides high-level descriptive insights and addresses the fact that the underlying data does not follow a Normal distribution as well as the resulting implications. In the second part the empirical assessment of the share of intangible assets is conducted along the previously specified key dimensions of company size, industry and geography, based on the following research questions:

- Analysis by company size: is there a statistically significant linear relationship between an enterprise's size and its share of intangible assets in the balance sheet?
- Analysis by industry: is there a statistically significant difference in the share of intangibles between different industries?
- Analysis by geography: is there a statistically significant difference between a country's observed intangibles share and the 'expected' standardized intangibles share given its industry composition?

Finally, in the third part, the overall results of the above analyses are summarized and key insights are distilled.



### Object of analysis and high-level descriptive results

Derivation of the data set for the analysis

In order to obtain a representative sample of the most important publicly traded European enterprises, the data set for this analysis is taken from the Stoxx All Europe 800 Index, which represents the 800 largest companies in Europe. This index has been selected as it covers – in contrast to many other 'European' stock indices – all European countries: countries inside and outside the European Union (EU), Euro and non-Euro states, as well as enterprises from Eastern and Western Europe.

The analysis is conducted based on the balance sheets taken from the group annual consolidated accounts for the financial year 2012. In the case of a deviation between financial and legal year, the reporting period that covers the larger share of 2012 is selected.<sup>17</sup> In a second preparatory step, the index's original geographical allocation is adjusted for a small number of companies; in particular, enterprises from UK-related territories, for instance Guernsey and Jersey, have been allocated to the UK for the purpose of this analysis.

As pointed out in the introduction, only companies that prepare their accounts using IAS/IFRS are considered. As a consequence, all non-IAS/IFRS companies are taken out of the sample: all companies from Turkey, several companies from Switzerland, Russia and Great Britain that report according to US-GAAP, as well as various individual enterprises that do not prepare their group accounts based on IAS/IFRS, for instance ASML from the Netherlands and Fresenius from Germany.

This leaves a total of 750 'eligible' enterprises, from which a sample of 80% (600 companies) is taken. In order to obtain a data set that very well represents the most important exchange-traded European companies across geographies, industries, and size, the sample is selected in such a way that it includes – for every industry and for each geography – at least two thirds of all 'eligible' companies and 90% of the respective industry's or geography's 'eligible' market capitalization.

Given that IAS/IFRS does not specify a fixed compulsory balance sheet structure (IAS 1.57) – in contrast for example to national accounting rules in Germany (§266 HGB) – the information regarding the total amount of intangible assets capitalized in the balance sheet can be either stated in a single balance sheet item, or split into various positions. As a consequence, only for less than half of the companies (48%) data can be taken directly from the financial database Bloomberg (Bloomberg, 2014). For the remaining companies, the data has to be obtained manually based on the respective company's published consolidated financial statements. In case of non-Euro financial statements, currency conversion is accomplished via historical values: for all balance sheet items the end-of-period exchange rate is applied, while an average-of-period exchange rate is used for relevant items in the profit and loss statement.<sup>18</sup>

High-level descriptive results

<sup>&</sup>lt;sup>17</sup> This includes for instance financial years ending on March 31st, 2013, or on September 30th, 2012.

<sup>&</sup>lt;sup>18</sup> In particular with regard to revenues, as these are necessary for the analysis by company size.



In total, the analyzed data set contains 600 companies from 24 European countries across 19 industries. The data set covers enterprises with highly differing sizes: revenues range from 52 million Euros to 364 billion Euros, market capitalization lies between 194 million Euros and 168 billion Euros. The total market capitalization of the analyzed companies amounts to 7.49 trillion Euros as of December 31st, 2012. This represents 95.3% of the market capitalization of the 'eligible' European companies.

With regard to the underlying question of the relevance of intangibles for these companies, represented by the share of intangible assets compared to the total assets capitalized in the balance sheet, the high-level analysis yields an overall median share of 13.4% (average share: 19.7%).<sup>19</sup> However, the range is very large, spanning from virtually zero (0.1%) up to nearly 90% (88.6%) in individual cases. This is also depicted in figure 1, which illustrates the distribution of the share of intangible assets across the data set:

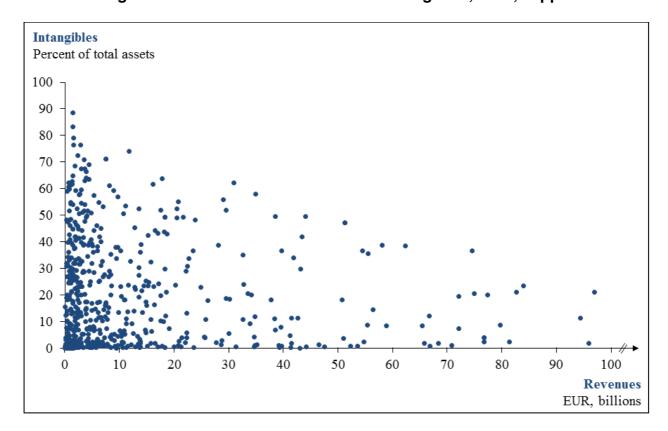


Figure 1: Distribution of the share of intangibles, 2012, capped<sup>20</sup>

Skewness of the data and resulting implications

The above scatter chart illustrates that the data is potentially skewed and might thus not follow a Normal distribution. This is also indicated by the difference between the mean (19.7%) and the median (13.4%). In order to statistically test this hypothesis, two skewness test statistics are calculated, as suggested by Doane and Seward (2011), with the null hypothesis being that the data is symmetrical: the adjusted Fisher-Pearson standardized moment coefficient (G<sub>1</sub>=0.9628) and the Pearson 2 skewness coefficient

<sup>&</sup>lt;sup>19</sup> In fact, the true share of intangibles – and in consequence the relevance of intangible assets – is even higher, because various intangible assets must not be capitalized according to IAS/IFRS accounting rules, and are therefore not represented in the balance sheet.

<sup>&</sup>lt;sup>20</sup> The diagram is 'capped' at a revenues cut-off of 100 billion Euros to ensure legibility. The analyses throughout this paper do incorporate all companies in the data set, including those not shown in figure 1. 212



(Sk<sub>2</sub>=0.9571). Both test statistics are far above the respective tabulated critical values<sup>21</sup> (Doane/Seward, 2011), resulting in the null hypothesis (data is symmetrical) being rejected in favor of the alternative hypothesis (data is not symmetrical). These results clearly indicate skewness and thus reinforce the previously diagrammatically suspected nonnormality of the data. This has to be taken into account when selecting the appropriate statistical test procedures for the following analyses. In particular, the analyses by industry and by geography will require non-parametric tests<sup>22</sup>, due to their mainly small sample sizes (subsets of the data), while the analysis by company size can be conducted using t-tests (very large sample size). Furthermore, given the skewness of the data, it also seems more adequate to use the median instead of the mean for all subsequent analyses.

### Analysis by company size

### Methodology

Whenever intangibles-based rankings are published in the media, large companies typically occupy the top-positions, for instance with regard to largest brand values (WPP Group, 2014) or highest investments into research & development (European Commission, 2013). This could, at first sight, let one believe that intangibles might be more relevant for larger companies than for smaller ones.

The research question for this section is therefore to analyze whether there actually is a statistically significant linear relationship between an enterprise's size and its share of intangible assets in the balance sheet. For the purpose of this analysis, size is represented in two ways: revenues (representing the size of the company's operations) and market capitalization (representing its stock-market value-based size).

The analytical setup and methodology encompasses two components: a linear correlation analysis based on the full data set, and a linear correlation analysis based on decile-groups.

For the first analysis, the Pearson product-moment correlation coefficient (r) is calculated to measure the degree of linear dependence between the share of intangibles and the revenues (respectively the market capitalization), based on the full data set of n=600 enterprises. Subsequently, a two-tailed t-test with n-2 degrees of freedom is conducted to determine whether the correlation coefficient r statistically significantly differs from zero, with the null hypothesis being that r equals zero.

For the second analysis, the companies are ranked and allocated into ten groups based on deciles with regard to their revenues (respectively their market capitalization) in ascending order. For instance, the first group (decile 1) includes the 60 companies with the lowest 10% of revenues, the second group (decile 2) contains the 60 companies with revenue ranks between 10% and 20%, etc. For each group, the median revenue (respectively market capitalization) and the median share of intangibles are calculated. Subsequently, the Pearson product-moment correlation coefficient is calculated across the ten groups, followed by a two-tailed t-test equivalent to the test for the first analysis.

 $<sup>^{21}</sup>$  The tables present a 90% critical value only for sample sizes up to n=500 (0.179); the critical value for n=600 should be slightly smaller. In any case, the obtained test statistics of 0.96 are far above that value.

<sup>&</sup>lt;sup>22</sup> For additional information regarding non-parametric test procedures and the relevant requirements and conditions, see for instance Sheskin (2011) or Corder/Foreman (2014).



#### Results

The linear correlation analysis based on the full data set with market capitalization as proxy for size yields a Pearson product-moment correlation coefficient of r=0.04. The subsequent two-tailed t-test results in the null hypothesis not being rejected at the 5% confidence level (p=0.35), which means that there is no statistically significant evidence of a linear correlation between market capitalization and the share of intangibles.

With regard to revenues, the linear correlation analysis based on the full data set results in a Pearson product-moment correlation coefficient of r =-0.10, which potentially indicates a very weak negative linear dependence. The respective two-tailed t-test results in the null hypothesis (r=0) being rejected at the 5% level (p=0.01) in favor of the alternative hypothesis (r=0). This implies that there seems to be a statistically significant negative linear relationship between the revenues and the intangibles share, though relatively small. This is also illustrated, to a certain extent, in figure 1: the intangibles shares on average seem to decrease as revenues increase.

For market capitalization, the linear correlation analysis based on decile-groups results in a Pearson product-moment correlation coefficient of r=-0.38. The respective two-tailed t-test leads to the null hypothesis not being rejected at the 5% level (p=0.27). This implies that there is no statistically significant linear relationship for market capitalization on the group level either. The linear correlation analysis with revenue-based decile-groups yields similar results (r=-0.33; p=0.35), i.e. no statistically significant linear correlation could be observed on a deciles-groups-base.

Overall, there does not seem to be a linear correlation between market capitalization and the share of intangibles, but there is some evidence for a weak linear relationship between the relevance of intangibles – represented by the share of intangibles compared to total balance sheet assets – and the size of a company, represented by its revenues. However, in contrast to what one might have expected, this weak linear relationship is negative, i.e. larger companies tend to have a lower intangibles share.

Despite seeming counterintuitive at first glance, this finding does not contradict the 'intangibles facts' stated earlier: larger companies on average do possess a larger absolute value of intangibles assets, but the relative share decreases with size.

## Analysis by industry

### Methodology

In qualitative terms, the underlying importance of intangibles differs considerably amongst industries, for instance due to a varying relevance of patents, licenses, R&D, software, etc. within the business model of each industry. Furthermore, the balance sheet structure is also highly dependent on the industry that a company operates in: for instance, the overall asset structure is clearly different for manufacturing vs. service industry enterprises, or for banks vs. trade companies. As a consequence, one might expect that the share of intangibles also differs between industries.

This leads directly to the research question for this section, which aims to analyze whether there is a statistically significant difference in the share of intangibles with regard to industries. For the purpose of this analysis, all companies have been allocated to 19



'supersectors' in line with the industry classification benchmark (ICB) as provided by the Bloomberg database (Bloomberg, 2014). These 'ICB supersectors' are referred to as 'industries' throughout this paper.

For each of the 19 industries the median share of intangibles is calculated, referred to as 'industry-median' in the following paragraphs. Every industry-median is then individually tested against the overall median (13.37%) with the null hypothesis being that the industrymedian equals the overall median. Given the non-normal distribution and the partly small sample sizes, a non-parametric sign test is used (Fahrmeir et al, 2007). It is expected that industries with an industry-median that is close to the overall median will not show a statistically significant deviation from the overall median. Therefore, in a second step, industries are tested against the first and third quartiles: industries with a median intangibles share above the overall median are tested against the 25%-quartile (2.19%), those with an industry-median below the overall median are tested against the 75%quartile (32.18%). On top, in a third analysis, a set of three two-samples tests is conducted to test selected pairs of industries against each other, in order to examine whether their intangibles shares do differ pairwise. For this purpose, given non-normal distribution and small sample sizes, the non-parametric Wilcoxon rank sum test is selected (Newbold et al., 2012), preceded by a Brown-Forsythe test of homoscedasticity<sup>23</sup>, to satisfy the Wilcoxon rank sum test's requirement of homogeneity of variances (Fahrmeir et al., 2007).

### Results

As expected, the result of the first analysis reveals considerable differences between industries with regard to the observed median share of intangibles, as figure 2 illustrates: industries with a high qualitative importance of intangibles tend to have a higher share – for instance media (e.g. licenses) and health care companies (e.g. patents) – while the observed intangibles share is smaller for industries with a lower qualitative relevance of intangible assets, for instance banks and real estate firms.

The results of the first series of non-parametric sign tests indicate that, for the majority of industries, the respective industry-median differs statistically significantly from the overall median on the 5% confidence level, i.e. the null hypothesis is rejected (p-values are provided in figure 2 above). For six industries, the results are not statistically significant, in particular for industries with a median that is close to the overall median, which is in line with the previously mentioned expectations.

The second series of non-parametric sign tests – incorporating the 25%/75%-quartile instead of the overall median – yields statistically significant results for all industries. The null hypothesis is rejected at the 5%-level in all cases (p-values are provided in figure 2 above) in favor of the alternative hypothesis, implying that each industry's intangibles share differs statistically significantly from the respective value of the 'opposite' 1<sup>st</sup>/3<sup>rd</sup> quartile.

<sup>&</sup>lt;sup>23</sup> Please note that the Bartlett's test, which is often applied as standard test for homoscedasticity, must not be used here, as it requires a normal distribution, which is not the case for the given data set, as highlighted earlier. Furthermore, in contrast to the Levene's test, which uses the mean, the Brown-Forsythe test uses the median, and is thus the most suitable test for the given purpose.



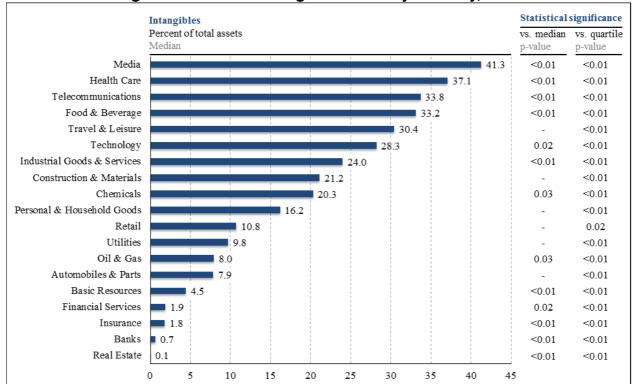


Figure 2: Share of intangible assets by industry, 2012

The results of the third set of tests provide further evidence that there seems to be a statistically significant difference in the share of intangibles between industries. The first pair for testing is selected based on the results of the very first analytical series: out of the six industries with initially non-significant difference versus the overall median, two industries are selected: the 'middle' one of the three industries that are above the overall median (i.e. construction & materials) and the 'middle' one of the three industries that are below the overall median (i.e. utilities). Following the 'passed' Brown-Forsythe pre-test, the one-tailed two-samples Wilcoxon rank sum test - with H<sub>0</sub> being that the industry-median of construction & materials is equal or less than the industry-median of utilities, and Ha stating that the former is higher than the latter - results in the null hypothesis being rejected at the 5%-level (p=0.02) in favor of the alternative hypothesis. This means that the intangibles share of construction & materials companies is statistically significantly higher than the share of intangibles of utilities. In a second set of analog tests, the telecommunications industry - selected as it is close to and slightly above the 75%-quartile - is compared against two other industries: personal & household goods (which has a 'semi-high' industry-median) and retail (which has a 'semi-low' industry-median). Subsequent to the 'passed' Brown-Forsythe pre-tests, both one-tailed two-samples Wilcoxon rank sum tests yield statistically significant results for both pairs at the 5%-level (p-values are 0.04 and 0.03), signifying that the share of intangibles is statistically significantly different for telecommunications companies compared to enterprises operating in the area of utilities or personal & household goods.

Overall, the results clearly imply that there are considerable differences between industries with regard to the quantitatively observable share of intangibles, and, as a consequence, that the industry in which an enterprise operates does significantly impact the relevance of intangibles from a quantitative perspective. However, it must be pointed out that the analytical results do not claim that the intangibles shares of each industry differ from the shares of every other industry. In particular for industries with very similar industry-



medians – for instance insurance (1.83%) and financial services (1.93%), or food & beverage (33.19%) and telecommunications (33.76%) – this cannot be claimed. However, the analyses do show that there are statistically significant differences among most industries and in particular between groups of industries, for instance between 'high-share' and 'low-share' industries, but also amongst 'high-share' industries like telecommunications and 'semi-high-share' industries like personal & household goods, or between 'semi-high-share' industries like construction & materials and 'semi-low-share' industries like utilities.

## Analysis by geography

## Methodology

The third and final dimension for analysis is related to the geographic origin of a company, which could potentially influence the share of intangibles in the balance sheet. However, when combining the previous finding – industry is a key influencing factor for a company's share of intangibles – with the fact that the industry composition differs considerably between countries, this results in the requirement of incorporating the aspect of industry composition into the geographic analysis.

This is achieved by constructing a 'standardized' intangibles share for each country: for every country, the country's actual industry structure — as observed in the data set — is combined with the respective 'industry-medians' calculated earlier. The resulting standardized share of intangibles for a country represents a country's 'expected' intangibles share given its industry structure: it illustrates what the intangibles share for this country would be if all its companies had intangibles shares equal to the median shares of the respective industries. If the observed intangibles share of a country is higher or lower than its 'standardized' one, then this difference must be due to a factor different from industry composition, as the influence of the industrial structure has been eliminated. Resulting from the above considerations, the research question for this analysis is whether there is a statistically significant difference between a country's observed versus its standardized intangibles share, which could potentially be interpreted as a hint towards a country-specific influence on the share of intangibles.

The data set contains companies from 24 different countries. For each of these 24 geographies the observed median share of intangibles is calculated, referred to as 'country-median' in the following paragraphs. However, only countries with a minimum sample size of at least three companies in the data set are taken into account when calculating the standardized intangibles share. As a consequence, three countries cannot be considered for the standardization: Croatia, Romania, and Slovenia.

Subsequently, every country-median is individually tested against its respective standardized intangibles share, in order to test whether the observed differences are actually statistically significant. Along the lines of the previous analyses, a one-sample two-tailed non-parametric sign test is selected for this purpose, with the null hypothesis being that the country-median is equal to the respective country's standardized intangibles share, and the alternative hypothesis being that they are not equal.



Figure 3 depicts the observed median intangibles share for each of the 24 countries resulting from the analysis as well as the standardized intangibles share calculated for

each geography based on its industry composition:

Intangibles Percent of total assets, ranked in ascending order by observed share Luxembourg 26.5 Ireland 22.2 France 18.9 Netherlands 18.2 Portugal Germany Denmark Switzerland 14,9 16,0 Belgium United Kingdom Finland 16,4 Observed share (median) Sweden Standardized share Austria Norway 8.7 Croatia Spain Italy 7.3 Slovenia Hungary Czech Republik 2.5 Romania Greece 12.7 Russia Poland 0 5 10 15 20 25 30

Figure 3: Share of intangible assets by geography, 2012

As figure 3 illustrates, there seem to be – partly rather large – differences between observed and standardized intangibles shares. However, the analysis reveals that these differences are not statistically significant at the 5% level for the majority of countries. Only for two countries, Poland (p=0.02) and Russia (p=0.02), the null hypothesis is rejected at the 5%-level in favor of the alternative hypothesis, implying that the observed intangibles share is actually statistically significantly different from the standardized share for these geographies. In fact, both countries have actual intangibles shares far below what one would expect given their industry compositions (Poland: 0.8% vs. 6.7%; Russia: 1.2% vs. 9.6%), which could be interpreted as a strong hint towards a potential country-specific influence on intangibles in Russia and Poland.

For all other countries, the null hypothesis is not rejected at the 5%-level. This means that the observed deviations between country-median and standardized intangibles share are not statistically significant; however, increasing the sample size, i.e. the number of companies considered per country, could potentially lead to more significant results. Furthermore, not finding a statistically significant deviation could potentially be interpreted as a valuable first hint that the standardized share might be an interesting reference point



for a country's intrinsic 'base' intangibles share and for detecting potential country-specific influences on the share of intangible assets, which seem to exist in Russia and Poland.

### Summary and conclusions

The overall research goal of this paper was to contribute to the discussion regarding the role and relevance of intangibles by depicting, from an empirical perspective, the quantitative relevance of intangibles in European companies' balance sheets, represented by the share of intangible assets compared to a company's total assets. This has been accomplished by empirically analyzing 600 of the most important publicly listed European companies from 24 countries across 19 industries. These analyses resulted in various interesting findings. In particular, four key insights can be distilled:

- Intangibles are clearly relevant from a quantitative perspective
- Industry is a key determining factor for the share of intangibles
- If industry structure is taken into account, there is little evidence for country-specific determinants of intangibles share in Europe, apart from Poland and Russia
- The relative share of intangible assets is only marginally affected by company size

Firstly, intangibles are indeed very relevant for European companies from a quantitative balance sheet perspective: in 2012, intangible assets accounted for a median share of 13.4% of a company's total assets (average share: 19.7%). The intangibles share varies considerably among companies, ranging in individual cases from virtually zero (0.1%) up to nearly 90% (88.6%). Furthermore, given that particular intangibles — for instance internally generated brands and goodwill — must not be recognized and shown as intangibles assets in the balance sheet according to IAS/IFRS accounting rules (see IAS 38), the 'true' relevance of intangibles is likely to be even higher in practice than the relative share observed in the balance sheets.

Secondly, industry is a key determining factor for the share of intangibles, and thus for the quantitative relevance of intangibles. The observed intangibles shares differ considerably depending on the industry: for instance, while the median share of real estate companies (0.1%) and banks (0.7%) is very low, other industries like media (41.3%) and health care (37.1%) have a very high median share. The analysis also points towards statistically significant differences among many industries and in particular between quartile-based industry groups. In fact, industry clearly turns out to be the most influential of the three analyzed dimensions.

Thirdly, there is little statistically significant evidence for country-specific determinants and deviations if the industry structure is taken into account. Only two countries exhibit a statistically significant deviation between the observed intangibles share and the 'standardized share', i.e. the 'expected' share given the country's industry composition: in fact, the observed intangibles share is considerably lower than the expected share in Poland (0.8% vs. 6.7%) and Russia (1.2% vs. 9.6%); for all other countries there is not sufficient evidence for a significant deviation. As a consequence, this 'standardized share' could potentially be a very interesting reference point for a country's intrinsic 'base' intangibles share.

Fourthly, company size is considerably less influential than one might originally have expected. In fact, the analytical results yield only a marginal (-0.10) – nevertheless statistically significant – negative linear correlation between a company's revenues and its



intangibles share. This signifies that the relative share of a company's intangible assets – in contrast to the absolute value of intangible assets – tends to slightly decrease as company size increases. With regard to market capitalization, another potential measure for size, there is no statistically significant evidence at all for a linear relationship.

In total, the research conducted in this paper generates valuable insights into an area that has not received much attention from a scientific point of view so far, by providing an empirical perspective on the quantitative relevance of intangibles in European companies' balance sheets. The presented findings also enrich and complement the ongoing discussion regarding the role and relevance of intangibles. Nevertheless, this research needs to be seen and understood primarily as a starting point for entering this highly interesting yet relatively unknown area. There are plenty of opportunities for future research to validate, complement and extend the initial findings, for instance analyses covering additional financial periods, increasing the number of analyzed companies, or including further geographic areas.

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# Knowledge Management for Knowledge Development: Lessons Learnt While Implementing International Projects by Multicultural Teams

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#### **Abstract**

Development and Technical Assistance (DTA) projects as a means for donors to transfer knowledge to recipient groups and organizations represent a clear case of managing knowledge transfer. DTA international projects support capacity building and sustainability, covering a wide range of knowledge areas, from technical to social, from political to environmental. Besides the specific expertise of the implementation team, there are the managerial knowledge and skills of the leader that facilitate relationships of team members with the locals and between team members. Most of know how comes through communication that comes through tacit knowledge.

As the focus of the DTA international projects is on continuous strategic improvement or organizational learning, they rely considerably on mutual understanding relationships – from information to knowledge to wisdom sharing. So, in order to assist knowledge management and development in the host organization, the implementation team needs to master knowledge management within the team. It looks that knowledge management and managing cultural diversity of a group are parallel processes – which is one of the main conclusions of the study.

Key words: Development & Technical Assistance (DTA), International projects, Cultural diversity, Project management, Implementation team, Knowledge transfer management

DTA projects focus on innovation and knowledge transfer

Development and technical assistance (DTA) projects increasingly focus on capacity building and sustainability, heavily grounded on the transfer of knowledge, while employing project management and knowledge management. Frequently DTA projects are built around new technologies and innovative solutions, hence knowledge transfer becomes the key point in project management and the "raison d'être" of the assistance. Even if in the terms of reference theoretically prevails transfer of explicit knowledge - inventories of information relating to the new processes, there is always important accompanying transfer of tacit knowledge. Since donors are increasingly stressing innovation as a key condition for funding development and technical assistance projects, knowledge management is equally increasing its importance. It is so true the image of helping a poor by offering a rod and not the fish, as funds are thus revolving and not instantly consumed. So, development may be defined as a widely participatory process which leads to social changes and economic improvements for the respective group (Rogers, 1983).

The challenge for a project manager is to organize and engage relevant content and expertise, necessary in the course of completing objectives and tasks in the planned timeframe, to attain the goals with the allocated resources and make the best of those. Success depends on the optimal blend of people, and equipment, skills and knowledge.



While the design stage focuses on comprehensive inventory of information, technologies, systems, strategies - knowledge that should be transferred, in the planning stage best key experts are recruited to deliver that information. It may happen that donors, in their attempt to offer top assistance, ignore to consider the preparedness of the beneficiaries to absorb certain amount and format of information, and also their willingness to change. The simplest innovation project spills over affecting social relationships, beliefs and values of the impacted group. Often times communication of new ideas or diffusion of innovations is obstructed by recipient groups even if the advantages are obvious (Rogers, 1983), usually because of the cultural barriers and the resistance to change. From a cultural point of view the dimensions that determine individuals and groups to refrain from adopting innovations is the Uncertainty Avoidance (Hofstede, Hofstede & Minkov, 2010; Hofstede, 1983; House, Hanges, Javidan, Dorfman & Gupta, 2004). Some groups are more willing to try new experiences: some others stick to old ways of doing things. adoption diffusion of innovation may be encouraged by the future, long term orientation of the group, if that innovation may lead to future improvements (Hofstede, Hofstede & Minkov, 2010: Hofstede, 1983: House, Hanges, Javidan, Dorfman & Gupta, 2004).

## Transfer of knowledge induces changes of cultures

No need to stress that knowledge is critical to effective leadership, to the design and implementation of systems and projects, while linked to cultural norms and beliefs (Kakabadse, Kouzmin, & Kakabadse, 2001). However, the value of knowledge depends on the capacity of the group to transfer, share and exploit it, as basis for problem-solving and for the decision making processes (Woolf, 1990). Knowledge also gathers truths, beliefs, and judgments reflected in behaviors and communication, being influenced and influencing at the same time the organizational culture (Van der Spek & Spijkervet, 1997; Myers, 1996). The job of the project managers, engaged in interpersonal communication, is to engage knowledge towards attaining objectives, since knowledge contributes to improved performance, building innovation, and competitive advantages.

In his model March (1991) considers that an organization is defined through the beliefs of the members about the reality, or better said, through the knowledge that individuals have about the environment. Since the reality is one, it means that the organization perceives the environment through the eyes of people. Just imagine a conversation between an Albanian and a Romanian, for example; if beyond verbal communication they use body language there might be problems since nodding the head has opposite meaning for each of them, and each decodes the message according to own inherited culture. The level of knowledge of one organization is in fact the proportion of correct representation of the However, the organizational code doesn't distinguish between true and false beliefs with respect to the reality, which is observed through the lenses of specific culture (individual, group, organizational, national). At the same time, the culture may be considered as the response of a group to the environment, surrounding reality, meaning that each group shares a set of beliefs and values (Hofstede, Hofstede & Minkov, 2010). This leads to the conclusion that different groups, of different cultures, relate differently to the same reality, and value differently transfer of knowledge and innovation.

From a different prospective the organizational culture represents the sum of knowledge that an individual, group or organization acquires in a given period of time, in the process of solving survival problems with respect to the surrounding environment and also solving internal integration (Schein, 2010). Hence, DTA projects, along with new, innovative solutions, transfer tacit and explicit knowledge, building new lives and new cultures.

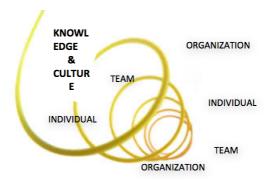


Knowledge transfer foregoes organizational learning which, for a team may be possible only if members have collaborative relation, and may be exploited if the attitude of the individuals and relationships lead to synergies.

# Knowledge transfer and organizational learning

A team is actually a group of people that work together in order to attain an objective, interact and communicate information and ideas about the ways to reach the best decisions which would support members achieving maximum potential. Knowledge flows from individuals to teams, to organizations, and each transfer enriches the quantity and quality of knowledge, and after each transfer individuals, teams or organizations are richer, in a continuous spiral of learning (FIG. 1). Along with the transfer of knowledge the people may learn new habits, or even values, and acquire new cultural traits or trends in a perpetual transformation.

FIG. 1



DTA projects implementing innovation have to control the transfer of both explicit knowledge, in the codified format, but more importantly, the transfer of tacit knowledge to the recipient organization or group, which is many times difficult to express in the terms of reference. Experts have to teach beneficiaries to operate the equipment, technologies, systems and knowledge, the so-called know-how. The explicit knowledge, available and many times accessible without intervention, has to be internalized and practiced, and the process involves direct communication, socialization, extensive personal contact and interaction. Lack of trust precludes transfer of tacit knowledge; hence individuals, in building confidence, exchange beliefs and views, and learn unconsciously cultural differences that shape the way people perceive the surrounding environment, the world in general. In knowledge management the most sensitive aspect is the capacity to share knowledge, which is determined by the culture and the level of trust (Jennex, 2008). But DTA projects may introduce the risk of deculturalization of the recipient group along with the transfer of tacit knowledge; hence experts should master communication for reconciliation of cultures and actually build partnerships.

Examples from the real business life represent always strong evidences, like the case of the Renault – Nissan alliance (Cacciaguidi – Fahy & Cunningham, 2007), where cross-cultural operational teams took a long time observing both home environments before starting to work together. It was necessary to build effective intercultural business communication, and overcome intercultural differences to reach goal congruence. It was more than a business join venture they created a collaborative venture focusing on cross-cultural synergies (transfer of knowledge and cultures). Some may argue that the transfer of technology would have been easier in this case, but the intervals of "internship" that each of the teams spent in the partner location lead to the creation of a common language,



a common business culture conveyed by the transfer of tacit knowledge. This approach is similar to the traditional apprenticeship, with young members of guilds spending 1-2 years in various workshops in order to master craftsmanship, where the role of tacit knowledge transfer was important. This may be considered inception of globalization.

At the same time the structure of an organization is determined by the flow of information and relationships between members (Lin & Hui, 1997). Individuals of an organization are influenced and influence at their turn the flow of information and the interactions between the members of the group (Lamb & Kling, 2003; Cummings, 2004). And thus the main vehicle for information transfer, communication, may be hampered, or facilitated by the cultural diversity. Communication contributes at the same time to strengthening group culture while altering original cultures of the members, through information exchange with members of different groups. While homogenous groups, from a cultural point of view, use high context communication, which contributes to easier transfer of tacit knowledge, culturally heterogeneous groups rely on low context communication, and transfer of primarily explicit knowledge (Hall & Hall, 1990). Thus, transfer of tacit knowledge calls for special relationships within the group.

DTA projects in multicultural environments are designed to transfer explicit knowledge, with high expectations beyond that. Since stakeholders are rarely familiar with each other prior to the launch of the project, the communication plan is based on low context communication. In the implementation process, as team is established and members get to understand and at least tolerate cultural differences, a new parlance sees the light and blends the different styles, and culturally connects the team members. It is generally after the team has passed the forming, storming and norming stages and reached the performing stage (Tuckman, 1965), that transfer of tacit knowledge is feasible, in the context of a new ephemeral culture, lasting just for the duration of the team.

From authors' experience the influence of cultural diversity on knowledge transfer is different if the implementation team is created to last for a long period of time, few years, or if it is a team of various short-term experts gathered for a complex technical assistance project. A team of experts would transfer explicit knowledge more efficiently, in spite of the diversity of its members not only from a cultural point of view, but also if members have various areas of expertise, background, managerial and communication skills. though such a team is hardly manageable, since each expert acts like a manager, at least in his/her own area of competence, in the transfer of knowledge process predominates explicit knowledge, as a stated in the terms of reference. The real value added of a DTA project is if the experts convey not only explicit knowledge, not even tacit knowledge, but quide beneficiaries to internalize the explicit knowledge and, to some extent, to turn tacit knowledge into explicit knowledge. It may happen that the experts never actually form a team in the sense described by Tuckman (1965), and remain individuals in a group that comply to a set of rules and procedures. If the team is meant to last longer, in the same format for the whole duration of the project, then team building is more important, accommodating acknowledgement and tolerance of cultural differences, and transfer of tacit knowledge sometimes exceeds the transfer of explicit knowledge. But real team communication presupposes that members are actively engaged in knowledge sharing, and this is line with the culture of the particular organization.

Knowledge sharing allows people to exchange, and actually transfer information, abilities, skills, experiences from one another (Krok, 2009). Thus individual knowledge contributes to the development of the organizational culture and hence members change, processes



continuously evolve. The benefits of knowledge for individuals or communities have been observed back in the history, and stated in the Latin aphorism "scientia potentia est" however, the statement of Francis Bacon in Meditationes Sacrae, 1597 according to whom "knowledge itself is power" was selfishly adopted by people taking advantage of important information. A fundamental question raises, namely when and how much knowledge and information to share, as while the power of the group increases the advantage of the individual is seen as diminishing. The dichotomy is encountered to individuals willing to promote as well as to organizations interested to withhold information that ensure preservation of competitive advantages. Somehow parents sometimes embrace a nonsharing attitude towards their children, and to questions related to sex, for example, the reply may be "this is something you'll learn later" or similar. However, it looks that the managers focusing on knowledge sharing are more successful on the long run, not only by transferring own information, but also by encouraging team members to share knowledge. A manager leading a successful team gains recognition, so for the transfer of information an encouraging environment should be prepared, removing demotivators and offering motivation to support engagement of members. It should be mentioned that both parties benefit, the assisted and the provider of service, or knowledge in the case of DTA projects, since learning is a continuous process grounded in experience (Kolb, 1984). And perhaps the most frustrating phase in guiding the organizational learning is the unlearning one, whether what have to be changed is culturally inherited or just a old habit (Kolb, 1984). The best examples are the Eastern European countries that switched about two decades ago from planned economy to free market, and many approaches had to be unlearned in order to be replaced by new ones. And then the process was influenced by the inconsistency between individual, collective and authority innovation decision (Rogers, 1983).

# Cultural diversity impacts knowledge transfer

Knowledge management includes people, processes, culture, or technology, thus the organization gathers knowledge through the beliefs of the people, this leading towards a specific organizational culture. Knowledge management helps the organization in the learning process (Sanchez, 1996). Superior utilization of knowledge comes from sharing and storing information and, according to the Knowledge Spiral of Nonaka & Takeuchi (1995), tacit knowledge should be converted into explicit knowledge, and this includes team building, communication, and cultural disclosure. At its turn culture influences managerial processes (Hofstede, 2010) mainly through communication (code, channel, feedback, interpretation, context), decision making process (problem definition, information gathering, analysis, alternative identification, implementation), motivation (depending on cultural dimensions masculinity-femininity, future orientation and control of uncertainty), leadership style (depending on cultural dimensions power distance and individualism-collectivism), models and organizational structures (depending on cultural dimensions power distance and uncertainty avoidance).

Also, the SECI model of knowledge dimensions (Nonaka, 1991) reveals that the transformation of tacit knowledge (into tacit or into explicit), is strongly impacted by the cultural diversity of the group members, as well as the internalization in own mental models; hence each situation has its own specific due to the cultural differences.

Tacit knowledge that covers the internalized knowledge of which individuals are not aware includes or even coincides with specific cultural traits, while the explicit knowledge represents the assumed resources used in order to consciously complete tasks. On a

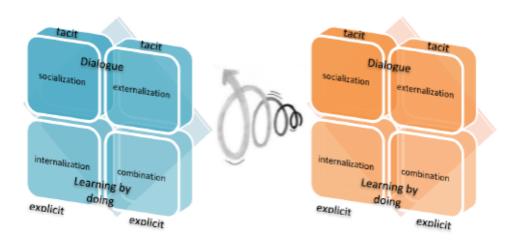


different level there are the elements of the experiental learning, concrete experience and abstract conceptualization (Kolb, 1983).

From a different angle, knowledge has a content prospective and a relational prospective – and while the first one can be stored in a codified inventory, the relational prospective shows knowledge depends on the specific location, organization, environment – depends also on the specific culture (Hayes & Walsham, 2003). It is like the same picture is projected on different canvas, of different colors, and though the source is identical the images have individual aspects (FIG. 2). While the processes and frames are similar, the results are not identical, and learning is a holistic process of adaptation to the world (Kolb. 1983). Practically, DTA projects, and projects in general, are never perfectly replicable. There is always the human, cultural factor; there is a different environment that empowers differently the transfer of knowledge. Ideally implementing agencies (should) have appropriate procedures for the design and management of projects to cope with cultural diversity in the process of knowledge transfer, and train managers to act accordingly. Since culture is the software of the mind (Hofstede, Hofstede & Minkov, 2010), then each program needs rewriting in each operational system, with same logic, but different operations. The challenge for the DTA projects is to create a conversion program that would allow implementation of a successful projects in totally different environments.

FIG. 2

Cultural environment A Cultural environment B



It is a loop as new knowledge, abundant knowledge impacts an entity, group, or team, or community and determines changes, opening alternatives to the old habits and challenging known values. But as soon as people understand, internalize, accept the change, automatically the culture itself may be influenced. And it is all about communication and community, about cooperation and exchange, about learning.

In the 90's on the shores of Caspian Sea, many top Western oil companies initiated exploration activities. Among other obligations towards the Asian states, for example, foreign companies had to increase the local content, which meant that they had to contract



as many local suppliers as possible, and not only that, but to sustain growth of local small and medium sized businesses. The process involved transfers of knowledge both ways, as locals had to learn the requirements of their new clients, while Western companies had to understand the local technologies, resources and processes. The local community was willing to learn, and adopt new ways of life, and clear examples are in the eating habits. For example the local diet contained limited variety of vegetables, due to the climate and soil conditions, but with some specialized technologies they started to produce greens not only for the foreigners, but also for the local population. At the same time guests learned to enjoy local cuisine along with associated protocols, and actually adopt the ways to thank for a meal (slowly sliding down both palms in front of the face and chest). It may become so natural that going back home takes a long time to unlearn such habits.

# Replicating best practices

Davenport's definition (1994) specifies that knowledge management actually contributes to identifying, developing and utilizing organizational knowledge. Thus knowledge management represents a tool for project management, both converging to attaining goals, improving performance, making use of experience and lessons learned. Starting from the definition of Davenport (1994) according to whom knowledge management is the process of capturing, distributing, and effectively using knowledge, it is possible to consider that a team is taking advantage of available knowledge, a real asset, which many times is difficult to measure and store.

DTA project management, especially involving multicultural teams, leads to retention of "best practices" or "lessons learnt" described as organizational learning towards improving processes and performance. But this is precisely the core principle of knowledge management — a dynamic process of creating new knowledge, finding new sources of knowledge, for the implementing or donor organization. Actually it is converting tacit knowledge extracted from the lessons learnt into reusable explicit knowledge, which may be codified and saved and transmitted. Experienced experts would find appropriate ways to transfer tacit knowledge to various groups from different cultures. Every implementation in every organization would be unique due to the unrepeatable cultural environment, thus experts should "speak every language" actually to communicate in any culture. Unfortunately it is not possible to address different groups with the same set of behaviors and values (Lewis, 2006), and if there were such an attempt it would expensive and applicable to only limited groups.

One example from authors' experience is relevant for the impact of cultural diversity in the implementation of DTA projects. In 1992 United Nations Industrial Development Organization (UNIDO) initiated a project financed by United Nations Development Program (UNDP) in Romania for the promotion of SMEs, with a local team of experts, managed by an experienced expat and receiving support from international experts hired for short term jobs. The main activities included provision of information and guidance to entrepreneurs to start or to develop their business, assistance offered to entrepreneurs to apply for loans or grants, provision of trainings, completion and publication of guides for entrepreneurs and finance for non-financial managers, feedback to governmental institutions. The project proved to be extremely successful and UNIDO initiated a program to replicate the project in other regions, and thus members of the Romanian team became managers of similar projects in other developing countries, with the precise task to clone the project. The Albanian clone project, in 1995 – 1997, taking advantage of the experience, procedures, materials already available, and verified, was not a success. The



Albanian team had the opportunity to spend time with the Romanian team, with intensive and extensive training, and learned firsthand from almost four years of experience. Unfortunately, the project achieved modest results, partially due to the social unrest, but mainly due to the different attitude towards entrepreneurship and different approach to knowledge, and specific ways to transfer knowledge. Evaluation considered the local conditions, and also the skills of the manager as main causes of the poor results. But the same project document (only numbers being adapted to the local conditions and population) was then implemented in the Western part of Kazakhstan, 1997 – 1999, by the same manager with similar resources. There were same information, same books to be translated and published, same management style, same procedures, though results were totally different. This team did not benefit from a similar internship to observe directly a successful example, and had less comprehensive training, but results were beyond expectations. The evaluation acknowledged the project design, the local conditions and skills of manager. The transfer of knowledge, tacit and explicit was efficient, one explanation being the compatibility in communication within the team and with the rest of stakeholders. The output in this case was very tangible and practical. The three project of this example were similarly designed, procedures were similar, just cultural environments were different, and it made the difference.

Even not explicitly all times, to some extent project management contains, as built in, the knowledge management. A team leader has to organize resources and activities towards achieving specific goals. It takes knowledge and experience for an individual to match tasks and people with the required expertise and to facilitate team relationships in such a manner that all knowledge and expertise is put at work synergistically. For project and knowledge management should be a coordinator, a sponsor interested in reporting lessons learned. And this is valid for most of the technical assistance projects and initiatives. For industrial projects the reports and evidence of lessons learnt are part of the procedures of contractors or big international companies that have to develop and implement projects in various places, with different teams of diverse people. For example organizations like UNO or the World Bank have specialized departments to deal with various types of projects in specific regions. Also companies like IBM, Ford or Renault have to take into considerations locals' specific in managing projects and knowledge in order to expand businesses. These communities of practice (Wenger, 1998; Wenger & Snyder, 1999) share lessons learnt in order to take advantage of opportunities to better manage people and processes, and to some extend they function similarly with multicultural teams.

#### Conclusions

One important feature of many international organizations, including those providing development and technical assistance is that they represent large, well organized networks which are essential for knowledge transfer and innovation diffusion (Mudambi, 2002; Rogers, 1983). It is a two ways process, and on one hand organization may provide knowledge to assisted communities in order to strengthen them, while absorbing knowledge from assisted communities and taking advantage of lessons learned. Communication and transfer of knowledge may be more or less efficient depending on the level of context in the communication, and decision level, thus teams absorb differently the information, based on the cultural specific.

Project managers operate knowledge management, and the result depends on the way team is lead, and how cultural diversity is capitalized towards harnessing knowledge within



the team. Thus strategies focus on proper utilization of the human assets, being knowledge, experience, skills or abilities. The wise use of knowledge depends on how data becomes information and then is turned into knowledge to make people wiser.

It is important to exploit both the exploratory dimension of the knowledge, creation, innovation as well as the transfer dimension of the established knowledge. Within a team both dimensions contribute to achieving objectives, as members are invited based on their knowledge, experience, and competences in order to use those in a creative problem solving manner. In other words a project is a medium for creation and transfer of knowledge. Hence the communication between team members becomes increasingly critical and cultural diversity may hamper or facilitate the proper use of advantages.

Even though knowledge may be treated as objective, and may be coded, inventoried, shared, and transferred in the end it all depends on organizational culture, and it becomes very subjective (Senge, Peter M., 1990; Nonaka, Ikujiro & Takeuchi, Hirotaka, 1995). This is the reason why organizations providing development and technical assistance need clear procedures for the evaluation, in the design stage, before, during and after the project or intervention closure.

The data and conclusions have been gathered by the authors in over 25 years of experience in international projects implemented by major donor organizations and private corporations.

Useless to say, DTA projects are about sharing knowledge, and replicating lessons learnt, which calls for an organizational language to enable individuals to understand and internalize the knowledge. More and more organizations need a cross-cultural language to communicate that knowledge and those lessons learnt.

Due to free flow of information, competition is global, but at the same time communities are bridged through common, human interests, beyond cultural differences.

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