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The role of knowledge sharing in SMEs' innovation and internationalization process

A case study: Monnalisa Spa

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Introduction

Knowledge is increasingly being considered as the most important resource in organizations. If organizations have to benefit from the knowledge they possess, they have to understand how to manage it, that is they have to put a great emphasis on knowledge creation, sharing, and utilization activities. The difficulty of yielding competitive advantage from knowledge depends on the fact that it is embedded in individuals' minds and in their skills in an ever-evolving learning process. For a company to achieve long-term sustainability, that knowledge must move to group and organizational level. Managing it is only possible if people are able to share the knowledge they have and build on the knowledge others have.

It derives that knowledge sharing represents the most crucial phase of knowledge management. The relevance of knowledge sharing is even higher when referring to small-medium enterprises. Their narrow scope of operations coupled with their low control of strategic resources make necessary to rely on what individuals know.

For long time, the peculiarities of knowledge sharing with regard to them have been overlooked. Given that they constitute 98 percent of all European enterprises, they can no longer be ignored.

Our work frames the discussion on knowledge sharing within the SMEs' context and, particularly, it aims at investigating the effects of knowledge sharing on innovation and on internationalization process, both representing the SMEs' fundamental challenges for surviving in the market environment.

In the first chapter, we will introduce the knowledge management framework, from which the strategic role of knowledge sharing will emerge. Then, we will treat knowledge sharing from the SMEs' perspective, a focus that will be kept henceforth. After having provided a brief overview of the main barriers to knowledge sharing that SMEs have to face, we will systematize the antecedents of knowledge sharing. Lastly, we will define absorptive capacity, which plays a bridge role between what is outside and what is inside the organization.

In the second chapter, we will analyze the relationship between knowledge sharing and innovation and then examine the role of knowledge sharing in SMEs' internationalization. In this regard, we will illustrate the different types of knowledge SMEs should be provided with and we will speculate about the complexities they face in managing knowledge during their internationalization process. Subsequently, we will review the diverse role that the main theories on SMEs' internationalization have attributed to knowledge.

Lastly, the third chapter is dedicated to the case study of Monnalisa Spa, an Italian small-medium enterprise whose empirical analysis will offer the opportunity to compare our findings with the extant theories on SMEs' knowledge sharing presented in the previous chapters. The data have been collected through both questionnaires and interviews. We have drawn up a questionnaire based on a 7-point Likert-type scale through which we have asked Monnalisa's employees to evaluate how they perceive knowledge sharing, innovation and the most important technological, organizational and individual factors predicted to influence knowledge sharing at Monnalisa. By analyzing questionnaires' results we will verify the correlation between: a) the selected independent variables and the two knowledge sharing dimensions (i.e. knowledge donating and knowledge collecting); b) the selected independent variables and the degree of innovation; c) the two knowledge sharing dimensions and both organizational and individual innovation. Next, we will integrate our quantitative results with qualitative results drawn from interviews made to managers at Monnalisa. Through interviews, firstly, we will investigate in depth the way Monnalisa's organizational architecture facilitates knowledge sharing and the role attributed to knowledge in innovation processes. Secondly, we will explore the relationship between knowledge sharing and internationalization process.

1. Knowledge Sharing: A General Framework

The knowledge-based view of the firm (Nonaka and Takeuchi, 1995; Spender and Grant, 1996), an extension of the resource-based view, considers knowledge to constitute the most strategically significant organizational asset. Organizational knowledge represents the outcome of the organization's learning processes at any given time and, hence, it is intrinsically valuable (Nelson and Winter, 1982). It is rare, because it is created through firm-specific learning experiences, and it is difficult to imitate, since it is idiosyncratic, namely it is generated from a firm's set of enabling conditions, irreproducible organizational members' experiences and the like.

The most accepted segmentation is that between *tacit* and *explicit* knowledge (Polanyi, 1962; Nonaka, 1994), the two forms in which it is converted along a clockwise path of organizational learning. Such knowledge creation process is theorized through the *SECI model of knowledge dimensions* (Nonaka and Takeuchi, 1995).

Knowledge is a valuable resource that has a dynamic and social dimension and, therefore, needs to be managed in a very careful manner. As a consequence, knowledge management should strive to convert internalized knowledge into explicit one in order to share it, but at the same time it should also enable individuals to internalize and render personally meaningful any codified explicit knowledge. Knowledge management implies knowledge generation, sharing and utilization (Davenport and Prusak, 1998). The success of knowledge management all revolves around knowledge sharing, which is essentially the process by which knowledge held by an individual is transferred and transformed into a configuration that can be understood and valued to be useful by the recipient (Ipe, 2003). In fact, only when this occurs the recipient will be able to utilize it for his own and the organization's advantages. Every process entails both bringing and receiving knowledge (Van den Hooff and De Leeuw van Weenen, 2004), as highlighted by the splitting of knowledge sharing into knowledge donating and knowledge collecting dimensions, the former being the employee's willingness to actively communicate with colleagues and the latter referring to the employee's willingness to collect knowledge from colleagues and internalize it (Lin, 2007).

The relevance of knowledge sharing is even higher when referring to small-medium enterprises. Their narrow scope of operations coupled with their low control of strategic resources make necessary to rely on what individuals know (Wiklund and Shepherd, 2003). The nature of knowledge is mostly tacit there (Cohen and Kaimnekais, 2007) and it is mostly transferred through an implicit mode, which ensures the non-replicability from competitors. Employees are in close contact with each other as well as with the firm's owner, so that the flow of knowledge is bidirectional and experiences and skills are transferred through observation, direct practice and conversations on a daily basis. SMEs are characterized by more resilience, entrepreneurial orientation inherent in the owner's way of doing business, organizational environment more supportive for rapid change and innovativeness and more cohesiveness of employees. Because SMEs are too small to grow through acquisition, they devote several efforts in relational integration within supply chains (Meeus et al., 2001).

Such features may facilitate communication and knowledge propagation comparatively to larger organizations. Nonetheless, they bear some disadvantages, which Riege (2005) divides into individual and organizational. Employees may not want to share because of the sense of losing control and authority over knowledge (Pfeffer and Sutton, 1999). Yet, the aversion to change, the lack of understanding the knowledge they hold or the benefits coming from sharing represent other reasons of resistance. Employees may be reluctant also simply because they are not to integrate knowledge sharing activities into their everyday duties. Cabrera and Cabrera (2002) have conceptualized knowledge sharing as a particular case of social dilemma, whereby organizational knowledge is a public good. Theoretical contributions have highlighted that small firms tend to lack a strategic approach in knowledge management, being concerned about the day-to-day viability (Riege, 2005). Given the informal nature of small organizations, knowledge sharing practices are not organized in a systematic way, like explicit plans or guidelines. Another disadvantage of SMEs vis-à-vis larger organizations is the lower level of specialization in their roles, which gives less expertise in implementing knowledge management and more difficulty in understanding knowledge management processes. They have also some problems in attracting high competent and experienced employees, who would be particularly useful for knowledge sharing.

After having provided a brief overview of the reasons for obstacles to share knowledge, we intend to systematize the antecedents of knowledge sharing. Based on a review of theories related to SMEs knowledge sharing, we identified individual, organizational and technological factors. Hereafter we report the most important ones.

Among the individual factors, we mention the role of the SMEs' owner and employees' motivation to share. With regard to the former, the owner subsumes the principal reference point for all the organizational members, whose attitudes toward knowledge sharing he can influence. It is his view to be determinant in explaining which and how organizational knowledge routines ought to be used (Thorpe et al., 2005). Most SMEs' owners have entrepreneurial orientations, determined by risk-taking, proactiveness and innovativeness (Miller, 1983). With regard to motivation to share, some scholars (e.g. Deci and Ryan, 1985) have classified it into intrinsic, introjected and extrinsic, but it has been demonstrated that not all types of motivation are desirable for knowledge sharing. Intrinsic motivation, concerning the enjoyment in helping others and knowledge self-efficacy (Lin, 2007), triggers a reciprocity orientation facilitating knowledge sharing, while extrinsic motivation triggers an exploitation orientation which instead thwarts such sharing (Poortvliet et al., 2007). It is undisputed that, given the close contacts developed within small organizations, in some cases employees may even regard the firm as an extended family, so that in SMEs is more likely that they are driven by intrinsic motivation.

Among the organizational factors, we remark rewards for sharing knowledge, organizational structure and culture, leadership style and top management support. Rewards for knowledge sharing are incentive systems implemented for intervention upon individuals' motivation. Having advocated that, generally, SMEs' employees are intrinsically motivated to share knowledge, their reward policies should be mainly intangible and those tangible should be linked to group performance, in order to promote cooperation and create interdependences which necessitate knowledge exchange. With regard to top management support, perceived supervisor support and their inducement to share knowledge determine employees' valuation of the usefulness of knowledge (Cabrera et al., 2006). Referring to organizational structure, it affects knowledge management processes through determining the patterns and the frequencies of communication, and the allocation of decision-making (Zheng et al., 2010). Whereas a functional and highly hierarchical structure makes it difficult to work together for knowledge creation and minimizes learning capacities (Chaston et al., 2001), knowledge sharing is rather fostered by a more decentralized structure, suitable to interactions among employees, informal meetings, job rotation and communication across departments (Wang and Noe, 2010). Flat organizational structures designed around processes rather than around functions may reduce cross-functional boundaries and unlock gates for knowledge sharing. Even though small firms are typically characterized by a functional structure, they are not much vertically differentiated and they tend to put low emphasis on employees' ranks (Wang and Noe, 2010), benefiting from an intense use of informal coordination mechanisms. This is the case of communities of practices, whose shared vision is driven by freedom of thinking and the interest in leveraging knowledge through socialization (Mirghani et al., 2004). All these organizational variables contribute to create organizational culture, which constitutes the most critical aspect of knowledge management. In fact, if we accept the view of knowledge as a social product, culture becomes crucial for understanding how to leverage knowledge, since it creates the environment for interaction in which knowledge is generated and used (De Long, 1997). People within SMEs are usually unified by common beliefs and values, so that it is easier to create a knowledge-sharing oriented culture. Ogbonna and Harris (2000) categorized four types of corporate culture: innovative, competitive, bureaucratic and community cultures. Organizations dominated by an innovative culture value flexibility, risk-taking and, hence, entrepreneurial initiatives, so that they promote cooperation between members and design jobs so as to provide individuals with autonomy in conducting their tasks. Firms permeated by this kind of culture represent an ideal context for the proliferation of ideas and organizational learning, which are positively related to effective knowledge sharing (Taylor and Wright, 2004). On the contrary, a competitive culture or a bureaucratic culture, which values standardization and does not allow for employees' empowerment, are believed to pose an obstacles to knowledge sharing. Ogbonna and Harris (2000) have argued that there is a link between the style of leadership and the organizational culture. In fact, it has been empirically founded that supportive and participative leadership styles, which favor the active engagement of each member and, hence, intrinsic motivation, are positively associated with innovative forms of culture. Although, in general, SMEs' environment is featured by cooperation and informal opportunities in which freely exploring new solutions, knowledge and learning from mistakes, it is not automatic for them to enjoy an innovative culture. Much depends on the values emphasized by the owner-manager.

Lastly, technological factors, referred to ICT systems, play a minor part in SMEs. Apart from limitations in their adoption due to the scarce financial investments they can afford (McWilliams, 1996), they do not fit the handover of tacit knowledge. They can disseminate information and increase opportunities to share, but it takes human systems to convert information into knowledge.

We cannot explain the effects of knowledge sharing on organizations' knowledge base and innovation performance regardless of absorptive capacity (Cohen and Levinthal, 1990), which mediates between knowledge sharing and innovation capability (Liao et al., 2007). According to the Zahra and George's (2002) reconceptualization, it consists of potential capacity (i.e. knowledge acquisition and assimilation capabilities) and realized capacity (i.e. transformation and exploitation capabilities). Absorptive capacity plays a bridge role between what is outside and what is inside the organization and then allows to gain innovation performance through the integration of the knowledge shared.

2. The effects of knowledge sharing on innovation and internationalization

2.1 The relationship between knowledge sharing and innovation

Given their resource constraint and their limited shelter from large competitors, SMEs' business environment is characterized by greater uncertainty and more demands for innovation. Speed of innovation has incredibly accelerated its pace because of rapidly evolving technology and shorter product lifecycles (du Plessis, 2007) and, consequently, innovation has become more complex and difficult to attain. According to knowledge-based economy (e.g., Quinn, 1992; Drucker, 1993), and consistently with Shumpeter's vision (1942), as competition destroys the strategic value of one state of knowledge within the organization, it poses opportunities for creating another one. Such challenges require companies to possess abilities for continuous improvements and continuous innovation, while contemporaneously fighting imitation attempts. For these reasons, knowledge is increasingly being recognized as a source of innovation for SMEs (Sparrow, 2001). It has been widely agreed upon the more innovativeness of SMEs with respect to large firms (Tether, 1998). In fact, successful innovations are not correlated with the availability of tangible resources (Khan and Manopitchetwattana, 1989), which we know are short in small companies. SMEs' innovation performance strongly depends on knowledge availability (Li et al., 2008; Desouza and Awazu, 2006). Indeed, innovation has been defined as sharing and combining knowledge (Mathuramaytha, 2012) in order to produce new one (Drucker, 1993) and apply it to commercial solutions. Innovation represents the output of many organizational dynamics aimed at finding new solutions, which are more likely to prosper during knowledge sharing processes, whereby ideas are shared and issued are discussed. In organizations, innovation processes may be looked through the lens of the knowledge conversion framework (Nonaka and Takeuchi, 1995), wherein the combination stage innovation outputs (i.e. products, processes and organizational modes) are produced.

Scholars have pointed out that innovative firms show one main common feature, that is a nature of "*highly effective learning systems*" (Tusman and Nadler, 1986: 75). The authors advocate that organizational learning cannot exist without emphasizing both intra- and inter-organizational relationships. Yet, it is worth to stress the centrality of people in the learning process which leads to innovation. If we accept the definition of innovation provided earlier, we can view the creation of innovative ideas and processes as the union of diverse elements of knowledge. Raising the chance meeting of such elements through intensive knowledge sharing should increase the frequency of new combinations (Rodan, 2002). Quinn et al. (1996) have proposed that knowledge rises exponentially when shared. They have explained that if two people share their knowledge with others and obtain feedbacks, amplifications, insights and modifications, then opportunities for innovation become exponential.

In particular, it is tacit knowledge sharing that researchers have found to be critical for firms' innovation capability (Cavusgil et al., 2013), another point which underpins the SMEs' superiority in innovation capability. It is intuitive that, when firms "learn by doing" the skills to carry out and develop products and services, competitors are prevented from seizing their know-how and replicate their products or services. Two knowledge-related factors make competitors' imitation difficult, namely causal ambiguity and social complexity (Cardinal et al., 2001).

Many scholars, by investigating the factors influencing innovation, have found this to be strictly connected to knowledge sharing. Mathuramaytha (2012) has tested that willingness to share knowledge, capability to learn and capability to transfer knowledge positively affect innovation capabilities. People who are willing to share are likely to be high in openness to experience, since they have more positive attitudes to have learning experiences, which increase opportunities to share. Additionally, innovators are capable to learn and to transfer knowledge to organizational assets and resources.

The bond between knowledge sharing and innovation is even clearer if we consider that knowledge sharing enablers also lead to more effective innovation performance. Lin (2007) has tested that the influence of individual factors (i.e. enjoyment in helping others and knowledge self-efficacy), organizational factors (top management support and organizational rewards) and technological factors (ICT use) on knowledge sharing also lead to superior firm capability.

Here we list the most important factors influencing both knowledge sharing and innovation performance, following the same classification of the first chapter.

With regard to individual motivation, people are likely to be more innovative when they are intrinsically motivated by enjoyment, satisfaction and curiosity (Amabile et al., 1996). As for knowledge sharing, extrinsic motivation, instead, may hamper innovative behavior, since organizational members may suffer external control and expectation.

Considering the role of the SMEs' owner, we may advocate that he is responsible for organizational learning capacity (Storey, 1994). His personality and experience should be conducive to autonomy, risk-taking, intuitiveness, change and innovation. These features describe the entrepreneurial orientation quite common to the owner-manager's mindset.

According to the top management support and the leadership style, managers should embed innovative initiatives, such as brainstorming and experiments, within employees' every day jobs. Otherwise, workload pressure and time constraint would not leave room for them. Essentially managers should pursue experimentation and improvisation, representing two organizational processes which build in organizational flexibility and create an organizational culture of change and innovation (De Tienne and Mallette, 2012).

With respect to organizational structure, it has been tested that a flexible structure, characterized by decentralization, employees' empowerment and a not rigid hierarchy, makes knowledge flows and proliferates within each corner of the organization, so that innovation can be pursued. Autonomy is particularly important as studied have revealed that employees are more innovative when they perceive themselves to have choice in how carrying out their activities (Amabile and Gitomer, 1984). Innovation is not a R&D department's prerogative; it rather encompasses all organizational levels, i.e. the whole firm. Given the dominant role of tacit knowledge for successful innovation performances, cross-functional teams are a useful integration mechanism for making such a kind of knowledge sharing effective. Cross-functional teams' validity is underpinned by the assumption that the more diverse knowledge people contribute to, the more likely learning elasticity and therefore knowledge sharing fruitfulness and therefore the more complex the innovation coming about (Rodan, 2002). Although tacit knowledge renders innovation safer from competitors' imitation attempts, it makes more difficult the innovation process itself, because of the lack of formalized way to access it. That is why SMEs cannot renounce to a certain degree of codification into explicit knowledge, in order to ensure ready identification, retrieval and accessibility for its application in future innovations (du Plessis, 2007). This entails the need for a certain degree of formalization, which makes organizational members follow rules and procedures and act in a predictable way. Then, online collaboration forums and electronic platforms can ensure the codification of knowledge. Anyway, collaboration, be internal or external, formal or informal, be vertical or horizontal, is an important facilitator, by establishing reference of expertise and by allowing the easy flow of the knowledge required for the innovation process across and beyond organizational boundaries. It also serves as to expand knowledge base and create an integrated view of staff members about what and where knowledge can be retrieved.

With regard to the organizational culture, we have previously outlined the traits of an organizational innovative culture, wherein flexibility, adaptability, dynamism, risk-taking and, hence, entrepreneurial initiatives aimed at innovating, handling and taking advantage of new challenges are promoted. Taylor and Wright (2004) have verified the positive relationship between innovative culture and effective knowledge sharing and organizational learning. They have also investigated that such organizational culture can only be created if employees are left free to collaborate, explore and experiment. Instead, a bureaucratic culture would be detrimental to innovative initiatives, given that freedom to execute tasks in alternative methods or search for sources of newness are frustrated or even punished. The influence of competitive culture on innovation is more unclear. On the one side, it encourages individualism, thus impeding the proliferation of knowledge conducive to innovation. On the other side, by valuing success, result accomplishment and winning may foster individual efforts to produce innovation, in order to respond to competitive pressures.

It is important to underline that empirical findings have found that intra-organizational knowledge flows do not represent the exclusive variable conducive to innovation performance improvements. Another important variable is the organizational ability of knowledge sharing with the external environment (Woodman et al., 1993). Here it comes into action absorptive capacity.

2.2 The role of knowledge sharing in SMEs' internationalization

Pressures for innovations, harsher competition, globalization and lower product life cycles have urged to emphasize speed and flexibility, integration and innovation (Ashkenas et al., 1995). Internationalization is no longer a large firms' prerogative, but it has become a survival condition also for small companies. They are no longer protected in their local markets, so far as multinational companies settle there. In this context, SMEs cannot afford relying solely on their internally generated knowledge for achieving competitive advantage and, given their scarcity of tangible assets, they are forced to primarily focus on it. Johanson and Vahlne (1990) have distinguished between two kinds of knowledge required in internationalization activities, which are: *objective knowledge*, referred to objective and explicit information, and *experiential knowledge*, which can be acquired only through direct practice and personal experience on the field (Penrose, 1966). The authors have also differentiated *market general knowledge*, referred to the common features enjoyed by their operative sectors irrespective of geographical locations, from *market-specific knowledge*. Mejri and Umemoto (2010) have classified experiential knowledge into *network knowledge, cultural knowledge* and *entrepreneurial knowledge*. Evidences have shown that firms increase their network knowledge as they increase their presence in foreign markets (Mejri and Umemoto, 2010), the idea being to build an organizational memory of what went right and what went wrong in previous experiences. Cultural knowledge includes the knowledge of languages, habits, norms, and the like, which from which the company can learn to deal with foreign actors by adopting methods and perspectives suitable to their peculiarities (Mejri and Umemoto, 2010). Finally, entrepreneurial knowledge means that firms are aware of opportunities and know how to exploit them. Tapping into an opportunity requires absorptive capacity (Liao et al., 2007).

For SMEs, going international equates increasing uncertainty, as they have to face unfamiliar and larger external environments. Internationalization of SMEs differs from that engaged by multinationals with respect to resource capability, market offerings, mode of operating, and scope of markets where they are present. MNEs locate their various activities in multiples sites, exploiting location economies and experience curves. Furthermore, they can count a much stronger reputation with respect to SMEs. The eclectic *OLI*[1] *paradigm* formulated by Dunning (1989) seems to specifically fit MNEs. In fact, according to this, advantages drawn from expanding abroad relate to extending proprietary assets, integrating activities with different factor and resource costs across the world, and realizing economies of scale and scope (Dunning, 1989). Managing knowledge during the internationalization process triggers some difficulties. The generation, acquisition and sharing of knowledge, especially tacit knowledge, calls for frequent and intense communication and interactions, which may include hard-to codify, explorative and non-standard processes. These activities are problematic when geographical distances enlarge and diversity among actors involved augments. Szulanski (2003) has identified further factors responsible for knowledge stickiness, including SMEs' lack of absorptive capacity to understand knowledge sources too far from their experience. In fact, unless the knowledge held by the firm and its counterpart is redundant to some extent, they will be not able to work together and share knowledge (Sivakumar and Roy, 2004). Sometimes, SMEs may be also subject to the *psychic*

[1] OLI stands for Ownership, Location and Internalization (Dunning, 1989)

distance paradox (O'Grady and Lane, 1995), which implies that when firms settle in physically close markets they tend to operate assuming that their domestic business model is entirely suitable also for those markets, so that they are prevented from learning about and managing critical differences. Additionally, some family firms tend to be very attached to the choices of the past (Timur, 1988), given their high degree of dependence on the owners' paternalistic view, according to which they promote practices and strategies resulted to be successful in the past, regardless of environmental changes. Another SMEs' shortcoming concerns independence orientation (Basly, 2007), which translates into avoiding inter-organizational relations in order to maintain the decision-making in hands of the family. This inhibits the amassing of international knowledge because such a kind of SMEs will have limited and little varied horizons and because the potential knowledge contribution of external actors is excluded (Basly, 2007). These considerations suggest how the organizational culture oriented toward knowledge sharing and innovativeness is crucial also for knowledge development during internationalization.

There are various theories on SMEs' internationalization, all having firm's knowledge resources as the lowest common denominator which is able to predict internationalization (Yli-Renko et al., 2002). Although the importance of knowledge for internationalizing SMEs is acknowledged by all the approaches, each one attributes a different role to it.

According to the Uppsala Model, a firm gradually increases its commitment of resources as it accumulates experiential knowledge through the establishment chain, which describes a step-by-step internationalization process that starts from exporting and ends up with the direct control of foreign markets through subsidiaries. SMEs may be prone to expand gradually because of their initial limited experiential knowledge about foreign markets. Johanson and Vahlne (1977) believe that the less structured a firm's activities, the more important the experiential knowledge for international success. As the physic distance between markets augments, the more difficult it is to collect, transmit and interpret country-specific knowledge. When experience of foreign markets is low, firms prefer to settle in foreign markets similar to their domestic one. As they gradually increase experiential knowledge, they will tend to access to more distant markets (Hornell et al., 1972). Consistently with Cohen and Levinthal's (1990) proposition that a firm's ability to learn from outside stems from the current overlaps between its internal knowledge base and the external source, Almeida et al. (2003) have hypothesized that SMEs are likely to be slower in reaping benefits of internationalization. In fact, it is plausible that SMEs' restricted horizon of action (Eriksson et al., 2000) and, hence, their weak variation connote knowledge limited to few customers, competitors and institutional actors. Through an adaptation of the Uppsala Model, Eriksson et al. (2000) have derived that the accumulation of experiential model is influences by "variation" during the internationalization process of firms. This infers that companies exposed to a variety of foreign players will be more capable of identifying problems as well as opportunities and of changing or improving their routines, products and practices.

The Network Approach, instead, proposes another role of knowledge, which can be accumulated faster by establishing networks relationships with the players of the international market environment, thus allowing SMEs to internationalize faster without following the incremental stages of the Uppsala Model. Such international interactions enable to learn and create new knowledge about counterparts, competitors, customers,

cooperation with other firms, product development, marketing, operating procedures, strategies and the like. All the partnership phases need to be properly managed and monitored. At the partner screening phase, the SME should be aware of its internal objectives, capability resources and gaps, in order to select the right organizations in terms of complementarities and synergies. Such objectives should be communicated within the organization. Similarly, it is essential to acquire information about potential partners' objectives, processes, resources and skills. This is the phase where market knowledge is predominantly important. Once partnerships are established, coordination for properly managing and monitoring international relationships becomes even more crucial and knowledge sharing is the pre-condition for making them fruitful. A peculiarity of SMEs is that even those with strong independence orientations highly value social network orientation (Basly, 2007). Entry modes favorable to SMEs' independence orientations are those which entail more control, such as direct investment. But at the same time, their lack of resources and of experiential knowledge makes it less risky to internationalize by export or long-term contracts with local firms. Entry modes which imply networking with indigenous firms may be more beneficial, since their experience and knowledge can help the internationalizing SME learn from abroad. Hence, when choosing a high control entry mode, it would be better to establish through acquisitions or joint ventures rather than through green field investments. Within the Network Approach we can frame the *Born Global* firms (Andersson and Wictor, 2003). They are SMEs which become global shortly after their inception. In this kind of firms, the role of top management and of the owners are determinant (Andersson, 2000), having typically entrepreneurial orientation and a global vision, which we know being positively associated with innovation performance. Born Globals see their personal networks as the main network, since there are not well-structured processes, routines and systems. Matthews (2006) has introduces the concept of *Dragon Multinationals*, which defines latecomer and newcomer firms which have been rapidly internationalized thanks to strategic and organizational innovations. Such firms enter the global market not to exploit their existing domestic assets, and in particular, their knowledge, but in order to acquire new resources. Before going global, they were companies which bore all the limitations of SMEs. Nonetheless, they have been able to tyrn their weaknesses into strength, according to the so-called *LLL framework*, which stands for linkage, leverage and learning. Linkage pertains to SMEs' convenience of engaging in links with foreign firms for accessing complementary skills and assets, as they initially suffer for low market intelligence (Matthews, 2006). Leverage refers to the way in which they are able to understand acquire and then utilize the external knowledge at disposal (Matthews, 2006), being able to take advantage of direct contacts between individuals in order to collect tacit knowledge. Lastly, learning regard the ability to learn more rapidly thanks to their linkage and leverage reiterated processes (Matthews, 2006).
Finally, the Resource-based Approach to internationalization follows similar assumptions with respect to the Network Approach, assigning to knowledge shared both at the upstream and downstream level of the supply chain a strategic relevance for reaping competitive advantage.

It has been widely demonstrated that internationalization positively impacts innovation performance and that knowledge sharing significantly intervenes in this relationship. Internationally diversified firms are able to improve their innovative capabilities by making use of a broader range of globally available resources (Kotabe, 1990) and by interacting with suppliers, customers and other stakeholders globally dispersed. Indeed innovation, being a knowledge-intensive process (Nonaka and Takeuchi, 1995), may be advanced by drawing from as many sources as possible, that is by relying on a wide knowledge variation (Eriksson et al., 2000). In order to promote such learning, knowledge sharing at individual, group and inter-organizational level is needed. Especially SMEs can benefit from going international. Discounting a narrower and less specialized knowledge base expertise, expanding their contacts and their presence would be a way of filling it up. SMEs should endeavor to have smooth and simple communication, to ask for or provide purposeful knowledge to the right interlocutors and to access to technical information in customer-supplier relationships.

3. Empirical Case Study: Monnalisa Spa

Despite the richness of academic theories and reviews have tried to explain the relevance of knowledge sharing and to explore both its antecedents and its effects on firms' performance, we have identified two aspects which literature has neglected. That is, the role of knowledge sharing in small-medium enterprises' innovation performance and the role of knowledge sharing in small-medium enterprises' internationalization process. With respect to the first aspect, researchers have mostly concentrated on the effect of knowledge sharing on large corporations' innovation performance, disregarding the importance to specifically analyze such relationship through the lens of the small-medium enterprises. Although some recent studies have begun to recognize that SMEs' innovation proportions are even higher comparatively to those of large companies, the dynamics through which SMEs' knowledge sharing allows to improve their innovation performance have not been investigated yet. Given this, we aim at shedding a light on this topic. With respect to the second aspect, although scholars have recently analyzed the evolution of SMEs' internationalization processes, we have noted that few contributions aimed at linking such aspect to knowledge sharing. Accordingly, our objective is to examine how knowledge sharing within and outside small firms' organizational boundaries can influence their internationalization process and their subsequent success. Such literature gaps might be due to the misconceptions that theories regarding large companies may be generalized also for smaller companies and that SMEs' resource constraints prevent them from having important innovation capabilities and from making intensive use of knowledge for internationalization purposes. Challenges and continuous changes in the market environment have triggered small-medium enterprises to focus on innovation to gain competitive advantages and to open themselves to global markets. As a consequence, the study of these phenomena from small companies' perspective can no longer be ignored. The lack of academic contributions supporting our argument has made it useful to conduct an empirical analysis in an attempt to better investigate it. The object of our study is an Italian medium enterprise belonging to the children garment industry, named Monnalisa Spa. By trying to cover those highlighted literature gaps, the case study intends to provide a comprehensive framework of knowledge sharing antecedents and effects in the specific context of small-medium firms. The choice of Monnalisa as the object of our empirical analysis is justified by various reasons. It has all the peculiarities of a small-medium enterprise highlighted in the previous chapters (i.e. family-owned enterprise, rather flattened organizational structure, small number of employees) and, moreover, it represents the successful example of a SME which has passed through various stages of the internationalization process and which puts a great emphasis on innovation. Furthermore, from an early examination of Monnalisa's public documents, it has emerged the strong value attributed to human capital and to internal as well as external communication. Thus, it seemed to perfectly fit our research needs to explore the knowledge sharing value for the international and innovation vocations of this company. Accordingly, such traits are present in Monnalisa's vision and values statement. As we can read in the Company's Annual Report (2011), Monnalisa's International success is based on a unique mix of entrepreneurship, quality, product and process innovation, settlement in new markets, special consideration of the development of resources and of the Company's know-how.

Data sources include primary sources, represented by a questionnaire and interviews. The questionnaire is based on a 7-point Likert scale and it was mailed to Monnalisa Spa employees, consisting of the following sections, each one containing several items: integrating mechanisms, organizational factors, individual factors, technological factors, organizational innovation, knowledge sharing, leadership, organizational culture, job characteristics, learning ability, job satisfaction and intrinsic motivation. Individual interviews were made to the CEO, the managers of marketing department, commercial department and of ICT function. Furthermore, another manager who preferred to remain anonymous was interviewed.

The analysis of data collected through both questionnaires and interviews has provided us with a global framework of Monnalisa's knowledge processes. We have derived very insightful results, most of which confirming former theories on knowledge sharing discussed in the theoretical chapters.

Monnalisa's innovation and international successful performances result to be quite enhanced by its knowledge sharing processes, which are fostered at both intra- and inter-organizational level.

With regard to the intra-organizational level, the most critical knowledge sharing enablers present in the Company are intrinsic motivational factors and a culture oriented toward knowledge sharing. The latter is determined by participative leadership style, top management support for knowledge sharing, and a knowledge sharing-organizational structure, that is configured as a functional structure characterized by low vertical differentiation, decision-making power decentralization and many formal and informal integrating mechanisms. Such organizational architecture, which has become even more flexible after the recent change in governance, fosters job autonomy, collaboration and ideas generation, so that it predisposes people to continuous change.

Knowledge sharing occurs for each activity at any organizational level. It represents the means by which Monnalisa's top management set objectives and elaborate plans and by which objectives are shared with employees of the various areas. It constitutes the way in which timely feedbacks are provided, operating procedures are correctly carried out, and issues are solved. It guarantees consistency of objectives between the various functions. Above all, it represents the pre-condition for Monnalisa's learning processes, which lead to innovation performances.

At Monnalisa there can be tracked many peculiarities characterizing small-medium enterprises. The owner has been the engine of the Company's innovative and knowledge sharing-oriented cultures, thanks to its entrepreneurial orientation through which he has always tried to instill risk-taking and proactive behaviors in the

organization. Furthermore, informal communication channels are preferred over the formal ones, even though the Company has recently incredibly increased the formal opportunities to share knowledge. Valuing personal interactions, technological infrastructures do not support intensively knowledge sharing.
What renders Monnalisa further successful is that the introduction of the external figure of the CEO has not translated into a decrease of entrepreneurship; rather, the new organizational tools have managed to further increase the degree of risk taking, flexibility and tension to change.
If, on the whole, the intensive use of knowledge sharing makes Monnalisa an extremely innovative firm, always ready to accept newness, it is noteworthy to underline the presence of a certain degree of heterogeneity with respect to people's innovative orientations among different departments.
Not all employees are prone to change. In this case, knowledge sharing will be not lead to innovation outcomes. The most reluctant employees are those belonging to the operation function, which is also the function where knowledge sharing occurs mostly via formal integrating mechanisms. However, it is reasonable that, given the nature of its activities, in such function efficiency must have priority over innovation. This may explain the high appreciation for formalization coming from the questionnaires. The perceived high degree of formalization and bureaucracy may also result by the introduction of top management committees, the increase in formal meetings and in the rules to follow in order to comply with ISO 9001 and SA8000 certifications. But the managers interviewed have ensured that these tools do not stifle knowledge sharing nor innovative behaviors at all.
If at the lower level innovative culture is not perfectly homogeneous, Monnalisa's managers always endeavors to make it internalized by them.

With regard to knowledge sharing at inter-organizational level, our conclusions have been entirely drawn from interviews.
It has emerged that Monnalisa integrates both suppliers and clients in its knowledge management processes and that relationships with them are the pre-condition for successful internationalization.
On the one hand, end-customers provide information about competitors and feedbacks on the Company's performances and, hence, they represent a source of enrichment for both commercial and product development aspects. On the other hand, knowledge sharing between suppliers serves as to ensure efficiency and the matching between externalized production activities and internalized logistics activities.
Monnalisa always tries to promote long-term relationships with suppliers based on transparency and correctness and that guarantee conditions for successful marketable products. The acquisition of ISO 9001 and SA8000 certifications demonstrate the willingness of the Company to involve suppliers in a common path toward continuous improvement.
Monnalisa's experience furnishes a meaningful example of the importance of network relationships for SMEs' internationalization, but it also warns us that it is very difficult to build really valuable social capital, able to bring knowledge. This warning is worth particularly when entering very psychically distant markets, where indigenous firms have a very different culture and communication become really complicate.
In the starting phase of its internationalization, Monnalisa faced such issues. In fact, its financial constraints as well as its unfamiliarity with foreign markets, forced the Company to rely on indirect channels at both upstream and downstream levels. The

relationships with intermediaries, with regard to the downstream level, have been demonstrated not to be effective for the transmission of foreign-market and customers' needs knowledge. With regard to the upstream level, it has resulted into a lack of control on the quality of products and on the alignment with Monnalisa's guidelines. Knowledge sharing was inexistent.
Despite of the intensive use of network relationships, Monnalisa's internationalization process traces exactly that prescribed by the Uppsala Model (1977), thus bringing evidence about its appropriateness to explain also the small-medium enterprises internationalization.
Indeed, in the more mature phases, the Company has shifted to more direct channels, by establishing its personnel presence in those foreign markets through direct retail stores (totally owned or in partnership) and through offices dedicated to suppliers' relationship management and planning. The contemporaneous presence of Monnalisa's personnel and the partner's personnel makes it easier knowledge sharing, especially that in tacit form and helps understand in depth the market peculiarities of each country.
But Monnalisa's international success does not depend only on external knowledge, but on its existing organizational structure and procedures which are conducive to learn from the outside, this ability being developed especially after the change in governance.

Conclusions

Based on literary contributions and on our empirical research, our work has developed a comprehensive framework of knowledge sharing antecedents and its effects in the specific context of small-medium enterprises.

In the first chapter, we have explained why it is only through knowledge sharing that knowledge becomes a strategic driver for competitive advantage. Only when knowledge is transferred and then accepted and understood by the recipient, it can be exploited for the organization's advantages. We have contextualized such topics within the SMEs' perspective by highlighting their advantages and disadvantages in managing knowledge comparatively to larger companies. Given that in SMEs most organizational memory resides in the owner's mind and that employees are in close contact to one another, they are predominantly endowed with tacit form of knowledge, which is transferred through socialization. We have found that their lean organizational structure and the entrepreneurial orientation inherent in the owner's way of doing business are likely to facilitate communication and knowledge propagation comparatively to larger organizations. However, the informal nature of small organizations impedes to organize knowledge practices in a systematic way and their financial resource constraints to invest intensively in them.
We have systematized SMEs' antecedents of knowledge sharing by analyzing them at the individual, organizational and technological level. At the individual level, we have discussed about the crucial role of the owner in driving knowledge sharing stimulus and we have found that intrinsic motivation is the most effective kind of motivation to share knowledge. At the organizational level, we have seen that intangible rewards, coupled with a job design promoting autonomy, are the most proper in encouraging intrinsic motivation to share knowledge. Furthermore, we have inferred that knowledge sharing results to be fostered by an organizational structure characterized by decentralization and a high appreciation for collaboration and communication across functions and along

hierarchical levels, which can be facilitated by an intense support of integrating mechanisms. Additionally, participative leadership style and top management support for knowledge sharing play an important role. Then, innovative and community organizational cultures seem to be the most appropriate for positively influencing knowledge sharing activities. With regard to technological factors, SMEs do not rely much on them, being knowledge sharing people-centered.

In the second chapter, it has been argued that there is a positive relationship between knowledge sharing and innovation, which has been defined as the sharing and the combination of knowledge in order to produce new one and apply it to commercial solutions. In particular, it has been stressed the centrality of people in the learning process leading to innovation. Still, researchers have found that firms' innovation capability mostly depends on tacit knowledge sharing, the predominant form of knowledge present in SMEs and difficult to imitate. The bond between knowledge sharing and innovation has resulted to be even clearer when we have exhibited that the influence of individual factors (i.e. role of the SMEs' owner, personal characteristics and motivation), organizational factors (i.e. organizational rewards, leadership style, organizational culture and organizational structure) and technology factors on knowledge sharing also lead to superior firm innovation capability.

After having investigated how knowledge sharing influences SMEs' innovation capabilities, we have explored the role of knowledge sharing in SMEs' internationalization. We have studied the different kinds of knowledge which are necessary during the internationalization process. The most delicate is the experiential knowledge, which is particularly difficult to acquire because it requires the firms' direct experience of operating in foreign markets. Such experiential knowledge will be more difficult to manage, the more the psychic distance there is between the domestic and the foreign markets. In order to be able to acquire and assimilate external knowledge, it has been stated the necessity to already possess an international knowledge base. It derives that SMEs are disadvantaged with respect to larger enterprises, since they have a shorter extant international knowledge base. These shortcomings are even worsened by the independence orientation discounted by some SMEs which make them refuse to count on knowledge contribution coming from outside the organization.

Next, we have passed on speculating on the role of knowledge in SMEs' assigned by the most important internationalization theories, namely the Uppsala Model, the Network Approach and the Resource-based Approach to internationalization.

In the third chapter, we have conducted an empirical research aimed at confirming theories reported in the theoretical part of our work. The results derived from the questionnaires and the interviews have confirmed the conclusions of the former theories on knowledge sharing discussed in the previous chapters. Monnalisa's innovation and international successful performances result to be quite enhanced by its knowledge sharing processes, which are fostered at both intra- and inter-organizational level.

With regard to the intra-organizational level, the most critical knowledge sharing enablers present in the Company are intrinsic motivational factors and a culture oriented toward knowledge sharing.

With regard to knowledge sharing at inter-organizational level, it has emerged that Monnalisa integrates both suppliers and clients in its knowledge management processes and that relationships with them are the pre-condition for successful internationalization. On the one hand, end-customers provide information about competitors and feedbacks on the Company's performances and, hence, they represent a source of enrichment for both commercial and product development aspects. On the other hand, knowledge sharing between suppliers serves as to ensure efficiency and the matching between externalized production activities and internalized logistics activities.

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