

Intertwined processes of strategy and knowledge management in micro firms

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Introduction

Micro and small firms have an acknowledged role in economic growth and innovation as the most prevalent form of businesses in our society (e.g. Nartisa, 2012). Knowledge, in turn, is a key resource in competitiveness and therefore knowledge management has an important strategic role in ensuring success and competitive advantage for a firm (Hanhinen, 2010; Richbell et al. 2006). In the literature of strategic management the focus of theory development has been on larger companies and established organizations. Also the literature on small business strategy can be seen to draw from perspectives developed for larger firms (Lumpkin, McKelvie, Gras & Nason, 2010). However, in their study Lumpkin et al. (2010) have explored the liabilities of smallness and newness to highlight how microenterprises and very new enterprises differ from larger and more established firms, when it comes to strategic analysis, strategic content, resources and processes. It is important to build understanding on how and why the strategic management literature may differ for the smallest and newest, not least because of the huge number of microenterprises and solo entrepreneurs. Many millions of small business founders and owners could benefit from a clearer understanding of small business strategy (Lumpkin et al., 2010). This study, thus, aims to shed a light on the way in which strategic reasoning and knowledge management are intertwined in micro firms.

The objective of our qualitative study is to explore the links between strategic reasoning and knowledge management in micro firm context. The data for this study has been collected by interviewing the owner-managers of micro firms and observing workshops, during which they have conducted competence analysis and discussed strategy work, vision and competencies needed to manage the business successfully. Micro firms in this study were solo entrepreneurs or firms employing two persons including the owner, and all of them were offering professional services (e.g. management consulting, coaching, advertising, professional guidance, services for career planning and recruitment, services for financial management). More precisely, our research questions are: *How are strategic reasoning and knowledge management linked in micro firms?* and *How systematic analysis of competences and qualifications influence on strategic reasoning in micro firms?* The rest of our paper is organized as follows. Next we will briefly introduce the theoretical background of our study. After that the methodology and findings of the study are introduced followed by discussion and conclusions.

Strategic reasoning and entrepreneurial logic

Traditionally the theoretical background of strategic management has been built and tested in larger companies and established organizations (Lumpkin et al., 2010). However, it has been recognized in the literature that small firms tend to be less strategy oriented than large companies. They seldom apply tools to strategic management, and they seldom have established a written strategy or vision (Richbell et al. 2010). Verreynne and Meyer (2011) have studied strategy-making processes and entrepreneurial orientation in small firms. According to existing literature, an entrepreneurial nature is considered as desirable for a firm and it is linked to a positive impact on small firm performance (Wiklund, 1999). The term entrepreneurial orientation refers to the extent to which firms act innovatively, pro-actively and to what degree they are prepared to engage in risk-taking (Covin & Slevin, 1989). Looking at entrepreneurship from the entrepreneurial orientation perspective means that entrepreneurship is regarded as more than just a singular activity, for example launch of a new innovation, instead it is seen as an overall strategic posture (Wales, 2016). Prior literature has also investigated the relationship between different approaches to strategy-making and entrepreneurial nature of the firms. As is the case

with knowledge management literature, also the body of knowledge regarding strategy-making processes has been built by studying larger firms and therefore there is still need to focus on strategy-making processes in small firms. In this paper we adopt the definition of strategy-making process by Dess et al. (1997, 679) and look at strategy-making as *“a process that involves the range of activities that firms engage in to formulate and enact their strategic mission and goals”*.

Verreynne and Meyer (2011) have reviewed prior literature on strategy-making processes and according to them the most commonly used strategy-making processes are: adaptive strategy-making, participative strategy-making, the intrapreneurial mode of strategy-making and simplistic strategy-making. The adapted strategy-making process is often used by small firms as it entails active engagement of external stakeholders (customers and suppliers), enabling the firm to pursue opportunities quickly (Barringer & Bluedorn, 1999; Verreynne & Meyer, 2011). In participative strategy-making the inclusion of internal stakeholders, especially employees in strategy work, in addition to management of the firm is highlighted. The employees play an important part in intrapreneurial mode of strategy-making and in firm utilizing this type of strategy process, employees are encouraged to experiment and come up with ideas for new products and services (Verreynne & Meyer, 2007). The firms using simplistic strategy-making on the other hand focus on the factors that have led to success beforehand and the focus is on one single strategic goal (Miller, 1993; Verreynne & Meyer, 2011). According to Verreynne and Meyer (2011) engaging in adaptive strategy-making has the strongest impact on entrepreneurial orientation and this can be supported by participative and intrapreneurial strategy-making.

According to Lumpkin et al. (2010) as a strategic choice, many new and small firms engage into relationship development in order to overcome individual resource shortages, the liabilities of both newness and smallness. The liability of newness (eight years or younger) can be defined as the risks of failure experienced by newly established firms, due to the underdevelopment of organizational roles and routines, and also the possible lack of relationships and established customers (Freeman, Carroll & Hannan, 1983; Lumpkin et al., 2010). The liability of smallness, in turn, denotes the risk of failure associated with firm size. This is because small organizations typically lack economies of scale, have challenges in raising capital, and are also relatively more vulnerable to fluctuations in the marketplace, thus finding it difficult to effectively compete. It may also be difficult for small firms to achieve economies of scale or gain recognition as a significant player relative to larger firms, and these facts can affect the extent to which microenterprises use strategic tools and pursue strategic initiatives. In addition to liabilities mentioned above, newness and smallness can also prove advantageous. Compared to larger and more established firms, microenterprises can make decisions and act based on them more quickly. Since the commonly accepted industry norms may be somewhat unfamiliar to new firms, this can result in development and implementation of novel practices. One other important benefit for microenterprises is the ability to engage in experiments. (Lumpkin et al., 2010.)

This notion is also in line with the effectuation view, which highlights the existing resources and competences as a starting point for value and new venture creation (Sarasvathy, 2001). It can be argued, that the starting point for most of the entrepreneurs is not to build a particular company for a particular product within a particular market. Instead, many entrepreneurs start with something more general, such as an interesting idea recognized worth pursuing. Therefore, entrepreneurs do not necessarily need to endeavor to articulate a clear strategic vision or specific steps to be taken to reach certain goal. Instead, a series of experiments can be undertaken through engagement with stakeholders. The strategic goals can then emerge as a part of the process (Sarasvathy & Venkataraman, 2001; Sarasvathy, 2001), making the strategic process more informal and intuitive than often is the case with larger, established firms (Allred et al., 2007). In the context of new and very small ventures, like for example solo entrepreneurs in professional services, as is the case in our study, the resources of the founder may also be the resources of the firm (Lumpkin et al., 2010). This may pose a challenge, namely that it may be difficult to separate the individual from the firm. In this paper the focus is on micro enterprises defined in line with Lumpkin et al., (2010) as small businesses with no more than 10 employees including the founder.

Knowledge management in micro and small firms

Strategy can be considered as a core element in organization's management, which creates background for other managerial tasks in the company, such as for knowledge management.

Knowledge management entails planning, implementation and evaluation of practices that ensure the competences needed to achieve company's strategic goals (Nordhaug, 1998). Thus, the aim of the knowledge management is to enable better performance of the company (Coates, 1999; Sher & Lee, 2004). Strategy-based knowledge management supports professionals' competences, guides the change, and brings competitive advantage (Wu & Lin, 2009). Knowledge management in micro firms is argued to be poor, particularly due to the lack of resources, such as finance, time and knowledge (Nartisa 2012). However, Handzic (2006) reports about an Australian study which suggests that SMEs may have also advantages in knowledge management compared to larger organizations. SMEs tend to be, for example, agile, willing to learn from customers, clients, competitors, suppliers and providers. In addition, SMEs tend to be well integrated to surrounding networks consisting of e.g. professional and industrial associations. These practices are likely to support knowledge management.

Adoption of knowledge management practices is, however, said to be challenging (Wong & Aspinwall, 2005). Wong and Aspinwall (2005) suggested eleven factors that are important in knowledge management particularly for SMEs. According to them, the factors that should be paid attention to while adopting knowledge management practices are management in general, leadership and support, culture, strategy and purpose, resources, processes and activities, training and education, human resource management, information technology, motivational aids, organizational infrastructure and measurement. While introducing knowledge management it is also important that firms have a positive orientation towards the development, such as innovative culture to encourage R&D project and management that is based on competencies. (Marqués & Simón, 2006.)

Liebowitz (1999) refers to Liebowitz and Beckman (1998) and suggest that knowledge management process should be started with determining the core competences and formalizing the existing knowledge. Furthermore, relevance, value and accuracy of the knowledge should be evaluated. To enhance organizations' competitiveness and success new knowledge should be developed while also existing knowledge should be utilized efficiently (Handzic 2006). Practical guidelines particularly to SMEs for conducting knowledge management suggests to start with building knowledge management awareness, aligning it with business strategy and auditing knowledge, such as assets and resources. Finally SMEs are recommended to develop and implement knowledge management solutions that are suitable for the firm and add value to it. (Handzic 2006.)

To sum up, knowledge management could be seen an important element in strategic reasoning particularly in micro knowledge-based firms but so far a largely ignored element. In addition, although the adoption of systematic knowledge management practices are reported to be challenging there are tools which can be applied to support the micro entrepreneurs to create a link between strategic reasoning and knowledge management.

Methodology

Research context and data collection

The aim of this study is to explore the link between strategic reasoning and knowledge management in micro firm context. The research questions are: *How are strategic reasoning and knowledge management linked in micro firms?* and *How systematic analysis of competences and qualifications influence on strategic reasoning in micro firms?* In order to be able to identify strategic reasoning and also to explore the implications of qualification definitions and systematic analysis of competencies for strategic reasoning in micro firms, a qualitative research design was chosen. The study at hand is a multiple case study with the case being the strategy formation process. The qualitative research design is also justified because the existing literature around the topic is somewhat faint (Eriksson & Kovalainen, 2008). The design enables the collection of in-depth data and thus provides in-depth insights from micro firms. In the research process different data collection methods are combined. Next we will describe our case context and data in more detail.

Table 1 presents an overview of the participating companies, total number being 21. All participating companies were micro organizations, either solo entrepreneurs or with one employee. The participating companies operate in several industries: management consulting, coaching, advertising, professional guidance, services for career planning and recruitment, services for financial management. Companies were intentionally chosen widely from different fields of knowledge intensive organizations. The decision enables to explore and identify the elements in strategic reasoning used by knowledge intensive micro

firms, irrespective of the specific industry. This, in turn, allows the conclusions to have wider implications. Furthermore, it is noteworthy, that all the participants were interested and willing to a) engage in systematic analysis of their strategic competencies and capabilities and b) to pursue the path of continuous development of the knowledge management.

Table 1 Characteristics of the participating companies

Services	Number of participants
Consulting and coaching - e.g. career coaching, work well being consulting, work supervision, lifestyle coaching	10
Business supporting services - e.g. accountancies, knowledge management consulting, IPR consulting, advertising agencies	9
Social services - child welfare, empowering photography	2
Total	21

The data of the study consists of interviews, observation and written reports (the results of the competence analyses in participating firms). The research data was collected during a process, where micro firms engaged in systematic development of their knowledge management (Figure 1).

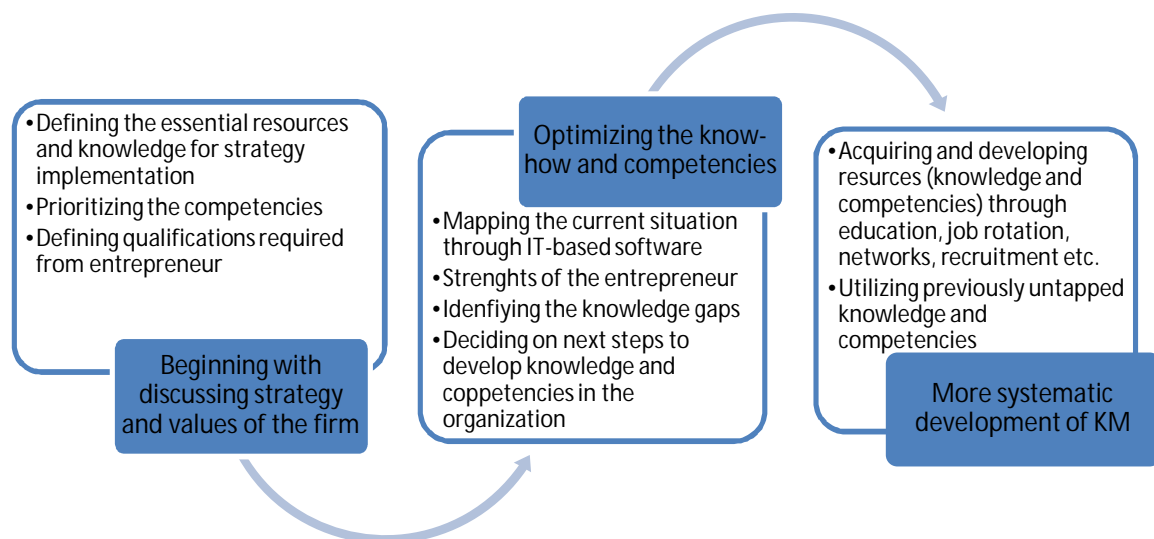


Figure 1 Process of competences and qualifications mapping

The process started with interviews which were conducted in each participating company prior to a competence analysis. The thematic interviews were (semi)structured and focused on the themes of: vision, purpose and benefits of strategy for the firm, challenges that the business will face in the future, the importance/benefits of human resource strategy, processes of knowledge management, and importance/benefits of systematic competence analysis for business, both for today and for the future. The interviews served two purposes, firstly to get an overview of the company by focusing on the aforementioned themes during the discussions. Secondly, the aim was to define the qualifications that are strategically most important for a firm in question and competencies needed to implement its strategy successfully.

Following the interviews, the data was also collected in workshops organized for micro firms. Four groups of micro entrepreneurs were invited to workshops (21 companies in total) to discuss knowledge

management and strategy. During the workshops also the competencies needed to manage the firm (marketing, sales, finance, new customer recruitment, networks for new service development and so on) were discussed. Thereby, the focus was not so much in the substance competencies that each entrepreneur had and had developed, but more on issues regarding business and steering the company. After deciding what competences they felt were important for their business, each participant in the workshops evaluated their own expertise by conducting an IT-based competence analysis with software especially designed for it. Results were put together to show the participants' combined results and these were discussed.

After the first workshops each of the micro firms were visited again and the discussion regarding the results of the individual competence analysis took place. Based on results entrepreneurs decided about next steps on how to develop or acquire the competencies had lack of but which were found to be strategically most important. The participants were interested in meeting again and thus three follow-up workshops were organized. One of the groups did not feel the need to meet again. During the follow-up meetings the participants discussed the next steps chosen for competence development. They were also able to compare the aggregate results drawn from their individual competence analyses with a large data of results collected from other companies (data available in the software and results collected from companies operating in various industries over the years). The participants reflected the results and discussed, whether the competence analyses had confirmed the development needs they had already recognized prior to the analysis, or whether something surprising had come up.

This is a work-in-process study and the data collection is ongoing and after we have collected more data, we will be able analyze the element of strategy formulation for the business and elaborate how much the goals and strategies in the participating firms were influenced by the workshops. During this Autumn each of the participating companies will be requested to answer a survey, through which we will collect the experiences regarding the process of systematic competencies and qualifications mapping and also follow-up information related to competence development plans. The aim of the planned survey is to find out if companies have developed their knowledge management based on the competence and qualifications mapping. The survey enables to analyze the practices of knowledge management in the participating companies in more detail and provides longitudinal data focusing on knowledge management in micro firms. Also we will be able to find out, how the participating companies have continued their strategy work and also if they have decided to formulate a written strategy for their firm.

Data analysis

The data analysis began by scrutinizing the interview data preceding the competence and qualifications mapping. The semi-structured interview data was analyzed to identify the knowledge management practices currently used in the participating micro firms and also to explore the current understanding of KM and it's link to the strategy and HRM in the participating firms. The overview of the empirical data for the study and its use in analysis is depicted in the Table 2.

Data analysis was conducted in parallel with data collection. During our research process, we have followed the process of systematic combining in line with Dubois and Gadde (2002), where our theoretical framework has directed us in our data collection and provided us with preconceptions (Dubois & Gadde, 2002). Our research process has been abductive, in that we have formed a pre-understanding of the phenomena under investigation based on prior literature on knowledge management and strategy work in small firms. The pre-understanding guided us in forming the semi-structured interview form used in collecting the data from the participating companies, discussing how they see the role of human resource strategy, business strategy and knowledge management. The five dimensions affecting simultaneously to both strategic reasoning and knowledge management were identified from both the interview data and observational material collected during the workshops. After going through the data and looking for emerging themes, five dimensions were identified and they will be presented in more detail in the next section. The analysis will continue after we have collected the survey data this Autumn.

Table 2 Overview of the empirical data for the study

Type of data	Utilization in analysis and reporting
Semi-structured interviews in the participating companies before the competences and qualifications mapping	<ul style="list-style-type: none"> - Identification and analysis of the knowledge management processes currently used by SME's - How SME's perceive the (significance) of human resource strategy, business strategy and vision - Benefits of systematic competence and qualifications mapping, systematic knowledge management
Written reports with the results of the competence and qualifications mapping, notes from the discussions in each participating company after the competence and qualifications mapping	<ul style="list-style-type: none"> - Identification of the most important strategic competence areas - Identification of the most important development needs, what kind of competencies, resources need to be developed - Development plans, how to acquire the competencies needed (e.g. education, recruitment, mentoring, networking)
Field notes from facilitated workshops (observation) organized for micro firms, competence and qualifications mapping and discussions about knowledge management.	<ul style="list-style-type: none"> - Identification of the competence areas needed to steer the company (marketing, understanding financial issues, identification of potential customers and approaching them, closing the deal) - Understanding the importance of entrepreneurial identity and its' formation process - Understanding the importance of networks and networks for micro firms/entrepreneurs in resource and competence development
Survey for the participating companies	<ul style="list-style-type: none"> - Analysis of the experiences and recognized benefits from systematic analysis of competences and qualifications - Exploring how the knowledge management has changed /developed - Collecting the experiences from the firms, the effects of developing knowledge management practices on productivity

Findings

In this section we will present the preliminary findings of our study. They will be elaborated further after we have been able to analyze the survey data which will be collected this Autumn. Then we will be able to pinpoint the changes that have taken place in participating firms in more detail.

According to the interviews, entrepreneurs had no written strategy for their firm, although they were aware of its importance. However, in workshops entrepreneurs were able to orally describe their strategy for each other. Their strategies seemed to be strongly based on their core capabilities, and they also linked their vision of creating customer value to their strategy reasoning. With electronic tool entrepreneurs defined (numerally from 1 to 5, 5 being the most important qualification) the qualifications they considered important regarding they business strategy. They also evaluate their competence on these qualifications (from 1 to 5, 5 being expert on issue). Electronic system provided the areas needing the most development.

- 1) Marketing skills and sales promotion
- 2) Capabilities needed to close the deal, sales techniques
- 3) Need to develop the abilities to sell services to larger companies when one is operating alone. The entrepreneurs discussed, what kind of capabilities need to be develop in order to be able to develop offering in a network in collaboration with partners.
- 4) Developing capabilities linked to productization of one's own expertise
- 5) Skills related to identifying the potential customers

- 6) The ability to utilize different social media both in internal and external marketing communication
- 7) The ability for service design and developing new customer oriented service solutions
- 8) The ability to systematically set goals for operation and adhering to them
- 9) The ability to consciously build entrepreneurial identity over time.

These competence development areas and their relationship with strategy were discussed in workshops. Discussions revealed five other dimensions influencing simultaneously on both strategy and knowledge management could be recognized from the data: networks for collaboration, entrepreneurial identity, market environment, customers and self-management. These five dimensions will be introduced in more detail next with tables depicting quotations from the data.

Networks for collaboration

The entrepreneurs participating workshops talked about the need to collaborate with other entrepreneurs and also with business developers, customers and other stakeholders. The need for finding a mentor, with whom to discuss and reflect own experiences and ideas for the future, was mentioned by several entrepreneurs. Talking about one's business could also help to define the strategic goals and endeavors both to oneself and to others. Even though the micro firms did not have written strategy, the business plan they had made contained also strategic points. The entrepreneurs saw the strategy as a road map to the future and it was seen to aid in maintaining the focus and getting things done.

Table 3 Discussing networks for collaboration

Networks for collaboration
<ul style="list-style-type: none"> • "I find mentoring to be very important. It is important that someone spars you, so that you don't have to think about things alone. One needs a bit of response. Talking also helps to gather one's own thoughts and recognize the needs one has". • "It was wonderful to come here [to workshops], this is like a clinic for competence development". • "When you take on bigger projects, you need network, because alone you might lack the credibility especially if you are offering something to larger companies/customers". • "One very important competence is the ability to be able to ask for and look for competencies that you yourself may lack". • "In my opinion, what the firm needs is tightly intertwined with what we are like as persons and what kind of competencies we have. And the problem is then, that we are so focused on what we are currently doing that we somehow need to be able to take a step back so to speak". • "When one is comfortable about one's own expertise and talking face to face with customer then the selling is easy. Otherwise, when it comes to sales promotion, collaboration could be useful and sales promotion could be outsourced to some extent. How to pull the right string for each customer so to speak, I think this requires that you know the customer". • "I find productization very difficult to conduct on my own, since it is also creative works and in my opinion requires opinions from others as well". • "It would be quite useful to use a group such as this, for example, to go through all our individual cases and situations and then others could get ideas from others, they could ask questions and it could function as a sort of peer mentoring".

Networking and networks were reflected in a positive light during the workshops by the micro entrepreneurs. The positive feelings were not an indication that networking always goes smoothly but reflects the participants' views that networking is almost a prerequisite in order to build a successful firm as a solo entrepreneurs in professional services. The entrepreneurs talked about the need to look for partners in order to be able to offer services for larger companies and create an attractive offering. Partnerships were seen as strategic since they also increased credibility in the eyes of the customer.

Mentoring and peer support and reflection were seen essential also in productization of service offerings. It would make it easier to define one's own expertise if one were able to discuss these matters with peers, and, giving ideas to others and asking them questions could also aid in defining one's own services and service packages and pinpointing the potential benefits for the customer. Since the

participants represented different fields of expertise, one idea brought up during the workshops was that they could offer an outsider's and maybe even a potential customer's opinion or viewpoint to others.

Market environment

For the micro entrepreneurs participating our workshop, marketing and sales represented important development areas. The need to take time for marketing posed a challenge for single entrepreneur. Also some of the entrepreneurs thought, that being so small they are also vulnerable, and in the eyes of the customer they may not represent the most credible service provider. Some of the entrepreneurs had conducted more or less systematic market research in order to be better able to define their own expertise area, and service compared to other service providers and possible competitors. They found this task useful, but time consuming for a solo entrepreneur. This presents a trade-off, whether to use the time on conducting market research or to do something else instead.

Table 5 Discussing market environment

Market environment
<ul style="list-style-type: none"> • "For me, developing marketing and sales is a challenge. And customer acquisition, how to find the customers who are willing to invest in their own development". • "My challenge is the loss of my biggest customer, and thus it is important to crystallize my own competitive advantage". • "The overall economic situation is reflected in the customers, companies seem to invest less on advertising. And I think that selling and closing the deal are seen as challenging". • "How to sell and market, especially to companies, is difficult, how to put the expertise I have down in words". • "For me, defining my service concept is also challenging". • "How to make my vision known, how to promote it". • "Right now I am looking for new business, and new opportunities perhaps not yet exploited". • "How to improve the viability of my business is now topical and challenging". • "I'm interested in increasing visibility and presenting my high quality way on doing things and also presenting my expertise". • "The market situation in my line of business in quite saturated, which poses also a positive challenge, one has to know how to differentiate oneself from others". • "If the demand for the services I offer increases, where can I find experts? Sometimes I think that it is also about creating a new market, one has to be able to define and express what customer could receive if they chose to buy services from me and collaborate". • "I find that I am too alone, and too small and thus vulnerable. It is difficult to find the time for everything I should do. And also, there are lot of networks one belongs to. It is difficult to choose the ones that would be necessary and useful to belong to, in order to realize the vision that I have for my firm".

It is strategically important to define the target markets one wants to operate on or pursue. The ideas for development and knowledge about market environment are developed in everyday work, in discussions with customers and peers, in participating trade fairs or meetings with other entrepreneurs and for example also by following the media. So for micro entrepreneurs this need not be a special process focusing on market research necessarily. Based on the competence analysis, conducting market research and building knowledge about the market was seen as a development area for participating professional serve micro firms. One of the participants raised the question, whether there really is a lack of competence or is it more a question of an attitude?

The customers

Over all, when discussing the customer, the entrepreneurs pointed out the fact that when the customer is doing well, it benefits the service provider too. It was found important, that entrepreneurs listen to the customers and try to get to know them. Finding out what the customer needs is not always easy, and the discussion geared to the fact that Finish people don't ask for feedback. It was wondered why giving and asking for feedback is found so difficult despite its importance. It can be used to improve, not only everyday work that the entrepreneurs do, but also to sharpen the strategic aims of the firm.

Finding a right language and right words when talking to different types of customers was found to be challenging, while equally important. The entrepreneurs found that the message has to be formulated differently when the customer is a firm or when the customer is a non-profit organization. Also when

contacting the potential customer and entering into negotiations it is sometimes important, even though difficult, to know who the person is one should talk to, and who is the one making decision about the purchase.

Table 6 Discussing the customers

The customers
<ul style="list-style-type: none"> • "In my opinion, if the customers does well, then we benefit from it too (an employee in a micro firm providing services for accounting)". • "I'd like to talk about feedback. Finnish people don't ask for a feedback that much and I wonder what hinders it. It is wonderful if a sales person asks customers for opinions and also learns from it. Feedback is valuable and also given spontaneously. But the feedback should be given with justification, otherwise it cannot really be used as a basis for competence development". • "When customers are so different - they can be firms or non-profit organizations - it is difficult to find the right language so to speak, find the right words for each customer. Also how to find the customer that are right for me and how much one should think about specialization to certain types of customers versus serving a wide customer base?" • "When one is selling a solution to a customer, it is necessary to carefully think about, who is the person in the customer organization that makes the decision. Who is the right person one should be able to engage in negotiations with". • "Customer/consumer understanding is the key and must. But it is difficult, since customer behavior is changing all the time, think about all the trends that are topical at the moment and how they change quickly". • "Maybe we should consider, what we could design, like could it be possible to design atmosphere for example".

The entrepreneurs talked about consumer understanding and customer understanding too and how it changes, since all the trends that are topical affect the consumer behavior. It was found strategically important to keep an open mind. This is because the idea for a new service or a new partner to approach could come at any time, even when one least expects it.

Entrepreneurial identity

The other dimension affecting strategic reasoning and knowledge management in micro firms is entrepreneurial identity and its formation. Many of the owner-managers of the micro firms participating the workshops and analyzing their competencies and qualifications had a long work history as an employee. They expressed the fact that it takes time to develop the identity of being an entrepreneur and one has to actively build the identity of an entrepreneur. Also they stated that in the services available for people starting their own business, these aspects are not often discussed. Since building the entrepreneurial identity takes time, the micro entrepreneurs found that especially at the beginning, when everything is still new so to speak, there is a need for community for sharing experiences and giving support. This theme was discussed a lot during the workshops and the participants highlighted the fact, that maybe the collaboration network formed with other entrepreneurs could become a sort of work community for solo entrepreneurs.

Table 4 Discussing entrepreneurial identity

Entrepreneurial identity
<ul style="list-style-type: none"> • "What about formation of the entrepreneurial identity? Because it forms a basis for being able to join other people and being able to present what wan con do and so on. It needs to be built actively and one needs to go and seek help when needed". • "In my opinion the thinking that one does the work because one has sort of a calling for it, and then one does not earn enough to make the living, is because the entrepreneurial identity is missing". • "When one becomes and entrepreneur, it takes a little bit time before one realizes that the community (as work community) is missing. Because collaborating with customers is not the same thing, they cannot represent the work community and provide the support one needs. With whom could one share the experiences of being in especially challenging situations with customers for example?" • "What about utilizing the networks, could they function as a community?"

- "I found the training I participated in the Internet helpful, since it enabled me to discuss with other entrepreneurs. It made me realize that I myself am an entrepreneur and what that entails".
- "How to guide people in their process of becoming entrepreneurs and to develop these kind of competencies. Maybe by using simple questions and question packages to answer. Because the advice a budding entrepreneurs get is offer very mechanical and it does not take into account these more psychological aspects of becoming an entrepreneur".
- "Am I able to face failure and disappointments? Can I get through them? If I can get through them, I now that nothing bad can happen to me. If one does not do anything, one won't be disappointed, but won't experience success either. If one attempts to do something special, one has to prepare for disappointments too. Disappointment or sadness is just a feeling, it does not define you".
- "Should one competence area be developing a tough skin?"

The entrepreneurial identity and its formation has a link to economic aspects of running a business as well, thus making it strategically important. As one of the entrepreneurs stated it: "*In my opinion the thinking that one does the work because one has sort of a calling for it, and then one does not earn enough to make the living, is because the entrepreneurial identity is missing*". The entrepreneurs talked enthusiastically about their vision for the future. For example, the vision could be to create excellent customer experiences and to support the customer organization in innovating and creating a good feeling, by consulting and supporting their (customer organization) team work. The visions for the future seemed quite idealistic and they were also strong. Yet, at the same time there was this recognized need to make and keep the business financially viable and this meant being able to define a price for the services offered and expert work used to benefit customer organization. Pricing and putting a price tag to one's own works was seeing challenging at the beginning of a career as an entrepreneur. They also talked about the fact that the entrepreneurial identity affects the way an entrepreneur operates with customers and stakeholders, collaboratively and courteously, kindly even, but one does not need to humble oneself. Instead it is important to understand ones worth.

Self-management

During the workshops self-management was discussed a lot and concrete ideas to improve self-management were raised. The ability and also need to stay agile was also raised during discussions. Making adjustment according to the current situation was seen as a forte, but it can also pose a challenge for micro entrepreneurs. When one is agile and makes changes based for example the customer expectations endeavoring to produce good customer experience, serving different kinds of customers according to their specifications may lead to the situation where the focus of the firm is lost or the variety of services offered becomes too wide. This was discussed extensively as an important strategic aspect, how to find a balance between focusing to certain expertise areas and on the other hand answering to customer expectations.

Table 7 Discussing self-management

Self-management
<ul style="list-style-type: none"> • "As a micro entrepreneur one has to be agile, otherwise one cannot not succeed. One has to be able to adjust and make changes according to the current situation". • "To survive in the marketplace entails that one is able to react quickly. It is not just a myth, but is expertise, to be able to react from the changes coming from both inside and outside". • "The better one knows oneself, the better one is able to evaluate the expertise that the firm needs and expertise one has to develop. And also what things are worth doing and pursuing". • "I have been wondering the dilemma of producing extremely high quality, if the quality is too high, that means that producing it takes a lot of time and less would be enough to satisfy the customer needs. How to find the balance with this and to define the right quality level and standards to operate by". • "How do you monitor your own work and make sure that you are doing right things at the right time, and also get the things that need to get done, done?" • "A have made a weekly plan for myself and also set the goals for myself for next six weeks. And I have been partly able to abide by it. I have devised plans, how many calls to potential customers I will make, how and when to ideate and how to decide on the best plan of action to contact the potential customers". • "One should never make could contacts to potential customers, one has to do research and background work and it takes time".

- "I find it useful to list three things during the evening that you will definitely do the next day. And especially, if you are able to list things that can really advance your business and strategy, then it is especially useful".
- "It terrifies me to name the price for my service to customer. But one has to find the courage and use the fixed costs and other costs and assessing how much time it will take, when deciding about the price for the customer to pay. I suppose one has to develop "toughness" in that sense and learn to articulate also".
- "I think that this (referring to quotation/discussion above) might be more of a question of an attitude or motivation, than whether one is capable or not".
- "It's like mental KonMari, that is giving up the things you don't need".
- "I have been wondering, that maybe it would be useful to choose one expertise area and stick to it and develop it. Because - if we think about productization for example - it might not be credible if one looks a bit like "expert of all areas".
- "When thinking about expertise development on personal level, I find that what I need is support and to be able to develop myself as person when it comes to for example selling".
- "When we talk about competencies as a solo entrepreneurs they seem to be changing. I mean that the competencies that I judge to be crucial depend a lot on what I am doing at the moment and with what kind of partners and customers".

Discussion and conclusions

Despite the importance of micro firms for our economic development, strategic management remains an understudied area and much of it stems from the large firm context. To address this omission we have investigated how strategic reasoning and knowledge management are intertwined in small firms and how analyzing competences influence on strategic reasoning in micro firms.

Based on our study, four main results can be highlighted. First, in micro firms knowledge management is not based on strategy, instead quite opposite, knowledge guides the strategy. Second, in micro firms strategic reasoning is mundane and agile, which has its benefits but also disadvantages. Third, mapping qualifications and competences supports entrepreneur to differentiate his/her' competencies from those of the firm's. Four, Strategic reasoning and knowledge management in micro firms is influenced by the elements related to entrepreneur him/herself while also elements related to company. These four main results are discussed below in more detail.

Based on results it can be argued that for micro entrepreneurs the strategy development is mainly based on entrepreneurs' core competencies, and vision of the customer value. Instead of knowledge management being based on strategic decisions, in micro organizations it is likely to be opposite. In knowledge-intensive business services it is the knowledge residing in the firm or formed jointly with the network of firms, that enables searching for new opportunities (Sarasvathy, 2001) and thus driving the strategic reasoning of the firm. Strategy is developed and evolved not systematically or in a linear fashion but instead in mundane activities. In addition, unlike the large organization that establishes strategy for a certain period, for micro organizations in our case study, the strategy was constantly evolving through strategic reasoning.

It has been argued, that resulting from lack of knowledge, skills and finance, micro firms are reactive, rather than proactive (Nartisa 2012, 1579). Based on our findings we suggest, that there is agility and pro-activeness also in micro firms, when it comes to developing business and services based on the knowledge and resources. This agility was also seen essential feature for micro entrepreneurs by the participants. Agility can also be a wolf in sheep's clothing. That means that if the entrepreneurs redirect the strategy and the course of the firm heavily based on the needs expressed by the customers, the variety of services offered and the customer base served may become too wide. The entrepreneurs discussed this dilemma of the necessity to choose between specialization to one expertise area on one hand, and the need to be customer oriented and flexible on the other.

The systematic analysis of competences and qualifications supported the entrepreneurs' identification of their core competences. Based on the competence and qualification analysis they created development plans for their knowledge management and reasoned their strategy. Competencies were reflected upon against the five fore-mentioned dimensions. It has been argued that a written strategy is equally important for small firms as for large ones (Richbell et al., 2006; Daft, 2007). By being able to

reflect their ideas for the future (vision of the company) and identifying the practical steps to realize the vision (discussing strategy with other entrepreneurs in workshops), competence analysis and workshops provided them with tools to “put the strategy in black and white”.

According to our study, the particular challenge for entrepreneurs was to make a difference between their own competences and the competences needed in the organization. This is somewhat understandable, because typically in micro firms the entrepreneur is the firm, so to say. However, this extremely subjective perspective might blur entrepreneur’s capability for strategic reasoning. The difference between capabilities that firm needs and capabilities that entrepreneur needs also emerged as an important topic in workshops. It was an eye opening experience for the participants to understand that these two are different things. It is not efficient to try to know and do everything by him/herself, instead it is important to decide the competences that entrepreneur should have, and what competencies are not either important, or can be acquired from elsewhere. This however, requires taking “a helicopter” perspective which might not be easy particularly for new entrepreneurs.

This study contributes to the theoretical literature of strategic management in the micro firm, describing strategic management as a mundane behavior rather than systematic practices. It also sheds a light on the knowledge management in micro firms and elaborates the intertwined relationship of strategic reasoning and knowledge management in small firms by presenting the dimensions affecting both strategy reasoning and knowledge management in micro firm context. The findings highlight that classical elements related to the successful strategy of the firms such as customers, networks and markets are important also in micro firms. More importantly our findings highlight the role of the individual entrepreneur and their capability of constructing credible, authentic entrepreneurial identity for themselves as well self-regulating their own activities through self-management as important elements in enabling strategy formation in micro-firms.

Our study provides practical implications as it describes practical benefits that are available from a systematic analysis of qualifications and competences for micro firms. This study also helps entrepreneurs to identify the themes that are worth taking into account while evaluating the qualifications, competencies and the way in which they are linked to the strategy.

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