

14th International Forum on Knowledge Asset Dynamics

PROCEEDINGS

Knowledge Ecosystems and Growth

5-7 June 2019
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Today's Business and Entrepreneurship Development: Knowledge Dynamics and Competences of Managers and Entrepreneurs

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Abstract

As was already identified in our previous studies, managers who operate in the modern organizations should apply a new set of abilities to lead the teams (Nikitina and Lapina, 2018; 2019). Policy makers (OECD policy report, 2018) claim that entrepreneurial behaviour of employees urged to adapt to changes. There is no common opinion among researchers about similarities of managerial and entrepreneurial competencies. Some researchers point out that psychological differences between managers and entrepreneurs are insignificant in large organizations (Begley and Boyd, 1987; Sexton and Bowman, 1984; Brockhaus and Horwitz, 1986; Low and MacMillan, 1988). Other researchers report that entrepreneurs manifest more overconfidence contrary to managers (Busenitz and Barney, 1997). Other researchers assume that business owners' competencies are combined from managerial and entrepreneurial (Chandler and Hanks 1994). Recent studies emphasize that entrepreneurs are different from non-entrepreneurs in terms of the competencies they possess (e.g. Huck and McEwen, 1991; Chandler and Jansen, 1992; Minet and Morris, 2000; Baum et al., 2001; Man et al., 2002; Sony and Iman, 2005) and entrepreneurial behaviour needs to manage culture, while the non-entrepreneurial one is oriented towards performance management (Sadler-Smith et al. 2003).

Over the last decades there is a rise in the number of SME companies where people perform entrepreneurial, managerial, and operational functions (Cohen & Musson, 2000). Researchers assume that entrepreneurs have a broader scope of competencies, as they need to play the roles of the manager, owner and entrepreneur (Man, 2001). Researchers have identified a specific group of competencies relevant to development of small businesses (Smith and Morse, 2005). Addressing SME challenges, researchers define finance management, establishing good human relations and planning goals as the most important competencies needed for SME entrepreneurs (Huck and McEwen, 1991), then the list was extended with opportunity recognition, opportunity development, and strategic and decision-making skills (Herron and Robinson, 1993; Man et al., 2002). The findings correspond to the discoveries proposed by Gaile-Sarkane who introduced Semi

Management Theory addressing management functions in small and medium companies (Gaile-Sarkane, 2012).

The purpose of the research was to analyse the relationship between managerial and entrepreneurial competencies, the following hypotheses were used:

H1: Managers and entrepreneurs share the same set of competencies but the importance of the competencies varies for each of the groups.

H2: Managers and entrepreneurs acquire the competencies differently – the first set is gained via education and experience; the other set is developed due to personality and experience.

Keywords – competence, managerial competences, entrepreneurial competence, knowledge management

Paper type: Academic Research Paper

1. Literature Review

Literature review was conducted to respond to the questions whether there is change and development trend in entrepreneurial knowledge, skills sets, and competencies and whether there is a method to train and assess them in the real business environment. For the purpose of the content analysis the authors reviewed academic sources in the EBSCO database for the period from 2015 to 2018. Initially 98 articles were selected according to keywords “entrepreneurial skills”, “entrepreneurial competences”, “entrepreneur + competence”. For analysis the authors chose 70 articles where entrepreneurs were considered as subjects for investigations on entrepreneurial competences, whereas studies where organizations were assumed as subject for research were excluded from the content analysis. As per recommendations for qualitative content analysis developed by P. Mayring (2014), three segmentation rules or units of analysis were defined. The first one is the ‘coding unit’, or the smallest component of material within one category; in the study it is a specific word or phrase. The second one is the ‘context unit’, which defines the largest component in the category, a document page in the case. Finally, the third one is the ‘recording unit’ that “determines which text portions are confronted with one system of categories”, it is an article or document. The authors were interested in the changes appearing during the last three years and discovered that half of the sample were devoted to the role of higher education institutions (HEIs), competence assessment and training methods to develop entrepreneurial competences, while the other part of articles were focused on field research and case studies. The authors identified some correlation between perception about entrepreneurial competences in previous years in comparison to the latest years, as well as linkage to managerial competences. For purpose of this research the authors define the following concepts: competence (plural – competences) is a set of skills, knowledge and attitude or set of competencies (singular – competency) that include also personal behaviour or intent. A summarized output of the first part is represented below in Table 1 and Figure 1.

2. Methodology of Research

As the studies were performed as a part of ERASMUS+ KA2 project, to validate the theoretical detections EntreComp: the Entrepreneurship Framework was set as a benchmark for emerging and demanded skills in the labour market. The geographic scope is primarily Finland, Latvia and the Netherlands. A study on trans-disciplinary entrepreneurship training is considered an intellectual output of the research. Business environment trends in the demand for competences in the labour market and international business environment is one of the focuses for the researchers.

Three focus groups that consisted of 5 start-up entrepreneurs were considered as an identification method to recognize the sets of knowledge, skills and competence for further analysis. The focus group members in Finland, the Netherlands and Latvia conducted brainstorming for competences generation, and then named whether or not the competences corresponded to the ones that are enlisted in the 15 EntreComp model competences. The evaluation of the importance of the existing 15 EntreComp competences and of newly identified competences was required for the first half of the importance/performance analysis – the importance of competences necessary in the transdisciplinary entrepreneurship training methodology for entrepreneurship and management students. During the later phases of the project research the list of competences was analyzed to understand whether the performance of training meets entrepreneurs' perception about the skills importance/demand, hereafter in Table 2 it is possible to see the respondents' assessment divided per country.

Importance-Performance Analysis is a technique which visualizes an area divided into four quadrants based the values of importance and performance of different elements which are calculated in relation to each other on two-dimensional coordinate system. As per authors of the method (Martilla & James, 1977), values of different attributes are provided by respondents' assessment, calculated and represented in the coordinate system where the horizontal axis is considered as performance, and the vertical axis – importance. When conducting focus groups formed from start-up entrepreneurs, the authors asked the respondents in each country to evaluate the competences listed in the EntreComp competences list on the scale from 1 to 4 where 1 is the least important ability. Then the data from all respondents was summarized per country and its weighted values are presented in Table 2 illustrating importance of each competence to SME during its early phases.

3. Entrepreneurial competences

There are many competences, such as initiative taking, creativity, result orientation, capacity for reflection and interpersonal skills, active problem seeking and problem-solving, risk appetite, that are considered by many researchers as typical for entrepreneurs (Baert & Camertijn, 2007; Gibb, 2008; Laevers & Bertrands, 2004; Van den Berghe, 2007; Van der Kuip & Verheul, 2004, Schelfhout et al., 2016). At the same time, as already mentioned above, modern environment and policy makers are interested in

approximation of managerial and entrepreneurial competences. HEIs are concerned with developing not only skills but attitude that shapes the action of the workforce turning towards proactive entrepreneurial behaviour. For example, European Competence Framework (ECF) is used as a base for a self-assessment study to identify entrepreneurial competences acquired in entrepreneurship education courses in Estonian universities. The researchers have evaluated cognitive outcomes of the courses (knowledge about entrepreneurship), then affective outcomes (entrepreneurship-related attitudes,) and skill-based outcomes (entrepreneurial skills). To the last group of competences correspond business planning and modelling organization, project management, marketing, leadership, motivating others, team and individual work, negotiation, risk-taking, lateral thinking, commitment, managing uncertainty, solving problems, creative thinking, resolving conflicts (Kraiger et al., 1993; European Union recommendations, 2006; European Commission, 2007; Fisher et al., 2008; Kyro, 2008; ECOTEC, 2010; European Commission, 2012; Amaeshi, 2017). It was discovered that an overview of an educational program reports positive outcomes of skill-based training, although those students who come from entrepreneurial families demonstrate higher aspiration to education, a study conducted by Mets revealed that earlier orientation of students significantly influences the outcomes of the course (Mets et al., 2017). An interesting fact is that another study reported that entrepreneurial skills, such as creativity, openness to risk-taking, negotiations skills, technical knowledge and skills and marketing, are passed from generation to generation in case of a family SME (Letonja et al., 2016) Another study in the Baltics discovered creativity, communication, organiser and project manager skills, ability to plan and ability to take risk, entrepreneurial ability, and as an opportunity to acquire knowledge as a skillset for start-upers. In contrast to the previous study in the neighbouring country, it was discovered that students in Latvia have less knowledge about entrepreneurship and the demands of the labour market (Bikse et al., 2017). Similar findings were reported by researchers from Poland stating that people tend to see themselves as employees not employers, do not willing to take risks, initiative, or demonstrate creativity (Igielski, 2017). When investigating the need of entrepreneurial competences for managers and leaders another researcher discovered that entrepreneurial competences are more important for those who “need to deal with risks and challenges” (Postuła and Majczyk, 2018). Other researchers agree by pointing out that there are differences in the entrepreneurial competences between the countries depending on economic climate, i.e. passive environment or opportunity scanning (Taipale-Eräväla et al, 2014).

Interestingly that a researcher from Finland emphasizes the significant role of social skills, supporting and serving society as a powerful driver to raise a responsible citizen that leads to the appearance of responsible entrepreneurial behaviour (Laalo and Heinonen, 2016). Researchers recognize the importance of network development, i.e. development of transactional and relational competences (Maksimov, 2017). There is a correlation between strong partnership management skills and sales and marketing skills (Khalid, 2015). Similar observations were made in the Netherlands where an empirical study among Master students revealed the influence of social competence and social

capital towards the raise of entrepreneurial ambitions. It was stated that social competence is a cornerstone to a range of opportunities for the entrepreneur forming a social capital for early-stage entrepreneurs (Lans et al., 2015). Dealing in uncertain situations requires a competence of crisis management; application of the competence to the context of entrepreneurial crises, such as resource shortage, dissatisfied clients or incorrect overview of financial perspective of the new venture, demands fostering the entrepreneurial competences of perceiving the critical incidents and coping with them (Heinrichs, 2016). Intriguing findings were reported by a Lithuanian researcher who proposed a technology entrepreneurship development aimed to combine techniques for launching a new business and products as well as exploring opportunities in the field of technical knowledge and science. Hereafter, it is suggested to train engineers in lean start-up methodology, business modelling, intellectual property protection and funding for a start-up in the same way that future managers and entrepreneurs are usually trained (Juceviciene et al., 2015). The author referred to previous studies (Pretorius et al., 2005) where competencies related to business management were set as complementary for an overall entrepreneurial competence. Researchers emphasize the importance of both the entrepreneurial and technical competence as preconditions for innovation and successful launch and further growth of a new SME (Ng et al., 2016). As SMEs usually operate with limited access to resources, the enterprises benefit from professional technical expertise and experience of their owners, e.g. receiving a grant at the beginning of business activities (Stenholm and Renko, 2016). Alike to the previous studies, some researchers are convinced that the abilities to plan and organize work, supervise tasks and manage people are perceived as the most important both for managers and owners of internationalized SMEs (Korsakiene, 2015).

Interestingly, the idea of gaining benefits from academic entrepreneurship, cross-disciplinary studies, entrepreneurial and operational activities is supported by researchers who write about entrepreneurial ecosystem and beneficial location of the clusters where HEIs and start-ups are collocated (Rasmussen 2011, Rao and Mulloth, 2017). Researchers (Bohdziewicz, 2016, Tuononen et al., 2016; Bravo et al., 2017; Sales et al., 2017), who explore entrepreneurial and managerial competences, refer to the concept of Career Anchors by Edgar Schein (Schein, 1985) that describes an individual's personal identity or self-image with many facets including among others technical and functional, general management and entrepreneurial creativity. Researchers found out that when comparing the entrepreneurial orientation with the managerial orientation, there is a big overlapping in the criterion variables to which each is related, hence the main difference between these two dimensions of career orientation is the desire for upward movement within the organization in the managerial orientation in contrast to a dedication for the creation of new products or processes for the entrepreneurial orientation (Bravo et al., 2017).

There are many categorizations for entrepreneurial competences, some researchers (Bird, 2002; Man et al., 2002,) divided them as 1) market exploiting opportunities; 2) interpersonal relationships; 3) conceptual abilities, such as decision-making, understanding of complex situations and innovativeness; 4) organizational skills; 5) strategic skills; 6) belonging and leading. There is another approach proposed by Le Deist

and Winterton (2005) in the context of entrepreneurial educational program development that defines entrepreneurial competence as a sum of 1) knowledge-related cognitive competence; 2) entrepreneurial skills and know-how functional competence; 3) behavioural competence.

According to the EntreComp framework (EntreComp, 2018), 15 entrepreneurial competences are divided into three areas, they are: 1) ideas and opportunities, 2) resources, and 3) into action; the full list of competences, output of content analysis and managerial competences discovered by the authors in the previous studies are compared in Table 1 below.

Table 1 Comparison of Entrepreneur’s and Manager’s Competences, created by the authors

EntreComp (2018)	Entrepreneurial Competences	Entrepreneurial Competences since 2015	Managerial Competences
Creativity	Creativity, creative and lateral thinking	Creativity and creative thinking	Creativity
Coping with uncertainty, ambiguity and risk	Managing uncertainty	Managing uncertainty	Ability to react and divide risks
Working with others	Team and individual work	Team and individual work	Teamwork
Self-awareness and self-efficacy	Capacity for reflection	Self-awareness	Self-organization
Mobilizing others	Interpersonal skills, incl. conflict resolution and negotiation	People management incl. Communication and Social skills, network development, partnership management, social competence	Ability for collaboration and forming relationship
Motivation and perseverance	Motivating others	Motivating others	n/a
Taking the initiative	Initiative taking	Initiative taking	n/a
Planning and management	Business planning, modelling organization, project management	Business modelling, organizing incl. specialized techniques, e.g. Lean start-up methodology	n/a
Spotting opportunities, Valuing ideas and Vision	Entrepreneurial ability	Entrepreneurial ability	n/a
Learning through experience	n/a	Ability to acquire knowledge	Willingness to learn and Erudition
n/a	Leadership	Leadership	Leadership

It was interesting to identify that three competences that are creativity, managing uncertainty, teamwork, ability for self-awareness and self-organization and strong people management competences are relevant for all researchable groups – for modern managers, entrepreneurs and the entrepreneurial educational standard as well. It is important to note that when describing entrepreneurs in the last three years researchers pay great attention to the investigation of social competence, communication and social skills, network development, and partnership management – that is a mirror image of the manager’s collaboration ability and competence to form internal and external relationships.

The next group of the entrepreneurial competences identified by researchers among entrepreneurs in the last decades, including the last three years, and included in the EntreComp framework are the ability for motivating others, ability to take initiative, competence in business planning and management and ability to spot opportunities. A thought-provoking finding is that during the last couple of years, entrepreneurial competences in the field tend to be very specific, for example, a competence in business modelling, organizing incl. specialised techniques such as the lean start-up methodology. The researchers assume the change might be caused by the increasing role of start-ups as a form of SMEs and a rise in the number of business accelerators and incubators.

There are two more peculiar findings: leadership competence, which for many year was considered as an undivided part for leaders and managers, is not included in the EntreComp model, however, the ability to acquire new knowledge, which is demanded for modern entrepreneurs and managers as well as incorporated in the EU Entrepreneurship Competence Framework, is a novelty for academic research appearing recently.

The authors identified that researchers discussed the following entrepreneurial skills before and after 2015, however the competences are not reflected either in EntreComp or in managerial skills: 1) solving problems / dealing with critical incidents; 2) risk appetite and openness to risk taking / risk taking. At the same time, there are entrepreneurial skills that were discussed extensively earlier but have not been very popular in academic discussion during the last three years; they are result orientation and commitment, as well as marketing competence. Instead of it, academics utterly emphasize the significance of a) technical knowledge and skills; b) technology entrepreneurship; c) knowledge on intellectual property protection; d) competence in funding for start-ups. Probably these findings are linked with digital entrepreneurship and the notable role of ICT in the modern environment. Another interesting finding is that the EntreComp framework includes some skills that have not been widely discussed by researchers, they are:

- 1) ethical and sustainable thinking;
- 2) mobilizing resources;
- 3) financial and economic literacy.

Finally, the authors noticed that the ability to analyse and evaluate is obviously related to the managerial skills set only. A graphic representation of the findings is shown in Figure 1 below.

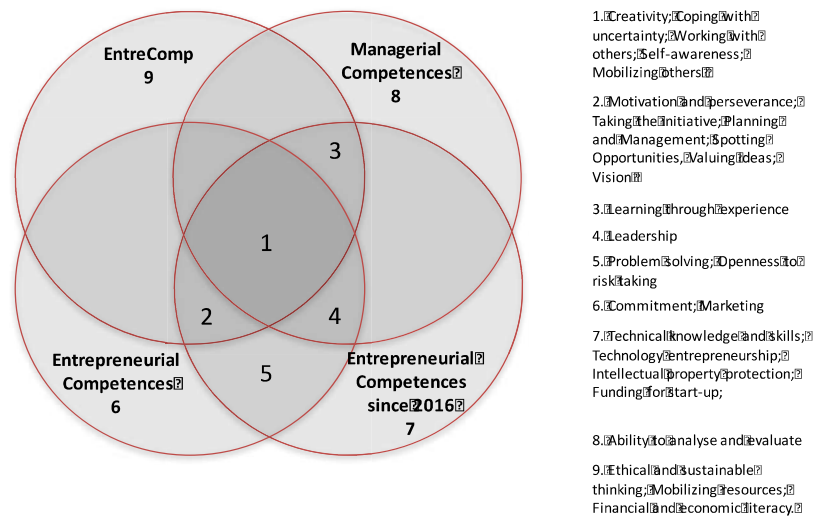


Figure 1 Entrepreneurial and Managerial Competences Model, created by the authors

4. Finding and Results

It was interesting to identify that entrepreneurs in all three countries participating in the research have a unanimous opinion about the motivation and perseverance competence as the most important to launch a business. The ability for spotting opportunities was chosen as the second most important by entrepreneurs in Finland and the Netherlands, while Latvian start-up founders ranked taking the initiative as the second most important for running a business on early stages. The third competence assumed as significant by the business persons was creativity in Finland, vision ability in the Netherlands and coping with uncertainty, ambiguity and risk in Latvia. A similar unanimous consent was demonstrated by the focus group members expressing their opinions about the least important skills for entrepreneurs: ethical and sustainable thinking, financial and economic literacy were chosen as less meaningful in all countries. In addition, the Finnish group pointed out that mobilizing others is not important for start-up companies; it might be explained by usually high motivation of the start-up team. The Dutch group also mentioned that planning and management are not so important for businesses during their early stages; it might be explained by the fact that start-ups usually focus on product development and launch, while tedious business and project planning are characteristic for firms in more mature development phases.

Comparison of the focus groups findings with previous findings of the authors lead to unexpected results, as the skills that were chosen by start-up founders as the least valuable for entrepreneurs are identical to the competences included the EU EntreComp framework but not massively investigated by other researchers from the perspective of entrepreneurial or managerial competences in modern organizations:

- 1) ethical and sustainable thinking;
- 2) mobilizing resources;

- 3) financial and economic literacy.

Table 2. 15 EntreComp Competences Evaluated by Start-up Entrepreneurs in Finland, the Netherlands and Latvia

EntreComp Competences	FI	NL	LV
Spotting opportunities	16	15	18
Creativity	16	13	16
Vision	8	15	17
Valuing ideas	4	10	18
Ethical and sustainable thinking	0	9,5	14
Self-awareness and self-efficacy	8	14	17
Motivation and perseverance	20	16	20
Mobilizing resources	8	13	18
Financial and economic literacy	0	7	14
Mobilizing others	4	14	17
Taking the initiative	4	14	20
Planning and management	12	8	19
Coping with uncertainty, ambiguity and risk	12	13	20
Working with others	12	10	18
Learning through experience	16	14	18

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