How Is Digitalization Challenging Small And Medium-Sized Enterprises Today?

No doubt, Digitalization is here already, offering now new possibilities for business as well as challenging enterprises to change the way they operate and make profit. The possibilities of digitalization have been discussed a lot. But how do small and medium –sized enterprises feel about it? What are their challenges, and what kind of competence needs they have for the digital future? A mini survey shows, that most of the challenges are related to new competences that are needed as well as to the capability to develop new profitable products and services from innovations.

Mini-survey for SMEs

To collect information about the challenges and competence needs from small and medium – sized enterprises (SMEs), a mini survey research was conducted. A set of questionnaire was sent to companies that had some history of co-operation with TAMK during summer 2016. the Questionnaire received 22 responses from companies of various sizes. The companies were all located in Finland, most of them in Tampere area.

Most of the responses were either from enterprises employing 51- 100 people (11 responses) or from two to five people (7 responses). Most of these small enterprises were startups. The rest of the responses were from enterprises with number of employees somewhere between five and fifty. Nine of the companies worked with high-tech products, producing and selling them. In addition, most of these enterprises work with mobile games, information and communication technology or education.

In addition to some background information concerning the enterprise, the questionnaire included two open questions and one Likert –scale question. The results of the open questions are further discussed in this article. The individual answers in these open answers were first coded against the areas concerned. Later, they were aggregated into bigger themes.

The current challenges for SMEs

First, the SMEs were asked to describe the biggest challenges they currently have. Altogether, four themes were constructed, as shown in Figure 1.

Major challenge for the company	Number of answers
Innovation and product development	7
Personnel competences	7
Financing and investments	5
Marketing and sales	4

Figure 1. Major challenges for the SMEs at the moment

Under theme "Innovation and product management", the enterprises were struggling with developing profitability products and services from their innovations. This challenge was

about being able to have quick trials with the new solutions, being able to smoothly develop product quickly with high quality and being able to design a service as a sellable item. This was a challenge for both smaller and bigger enterprises, startups and older enterprises, across different business areas.

In the second theme, "Personnel competences", SMEs described about the lack of competences. This was about the inability to find and recruit specific competences, lack of ability to develop current competences or lack of leadership skills. Enterprises were already foreseeing what kind of competences they will need in the near future, but they were struggling with compiling them. This problem was mentioned also by both smaller and bigger enterprises.

Theme "Financing investments" was related to the difficulties in getting enough financing for the investments the enterprises would like to make. The challenges included budgeting or high investments the product development or brand building required. Especially this theme came up with the start-up companies. Their specific challenge was how to be able to compete with the big companies that are able to make high investments. With "Marketing and sales" the challenge was simply the need to get more sales and more customers. The SMEs felt they do not reach enough customers, they don't have enough sales, they don't have enough customer added value or that their marketing is not in a good level. These challenges were mentioned by both smaller and large enterprises.

Challenges from digitalization

The second open question was about specific challenges that digitalization brings to the enterprises. Similar to the results of the first question, the individual answers were coded and aggregated into themes. These themes are shown in Figure 2.

Challenge with digitalisation	Number of answers
Leading people and competences	9
Product development improvement	7
Business model change	6
Role of marketing and sales	4
No challenges	3

Figure 2. Challenges with digitalization

It was surprising, that three of the enterprises didn't see any specific challenges with digitalization. On the contrary, they saw that the digitalization is their business, they support digitalization process. All the other enterprises had quite similar challenges with digitalization. Most of the answers were related to competence development. The challenges of digitalization were quite much the same as the overall business challenges in the first question.

Competence development was the most common challenge. Many SMEs saw clearly that part of the tasks their employees are currently working on, will disappear in the future. The challenge was that the needed competences and competence profiles will be very different in the future. The need for specialists understanding broad, complex systems is needed, and this kind of know-how is too much concentrating on a few individuals currently. The competence

of employees needs to be developed with specialization trainings to change their competence profile to correspond to the new business needs.

The second theme of digitalization challenge was product development improvement. Under this theme, the responses were quite much related to the utilization of the data: how to analyse the data the enterprise has, and how to utilize it in research and development of new products. It could be concluded that competence development, innovation management and product development are the biggest challenges the SMEs face today. Enterprises have a need to identify profitable product ideas from the huge amount of ideas, making product development more efficient with the data as well as commercialize the products and services faster. Also the SMEs were struggling with keeping the current products and services up to date with the changing customer needs.

The change in business models with digitalization was the third biggest theme. It was about the need to develop new services for the new customer needs, requiring new revenue models suitable for them. Many SME's had identified the need for creating new services around their existing products, or even changing their current products into services.

Inside Marketing and sales –themes, the SMEs were mostly concentrating on new channels and tools for marketing and sales. They were hoping to develop marketing and sales more effectively, but they were struggling with the tools and ways doing it: what kind of tools to use? How? Also, the enterprises had challenges in being able to publish the product information for the customers in a suitable format and prepare training materials for the customers in digital format. Also, one respondent identified the change that is happening in the target market: the activities start to be more like consultation rather than what they have traditionally identified as marketing.

Conclusions

On the basis of this small research it could be concluded that competence development, innovation management and product development are the biggest challenges the SME's face today. Maybe these challenges may exist even without digitalization, but at least digitalization makes those challenges bigger, giving more possibilities how the companies can develop. It is evident that companies need help to develop their competences to meet the challenges they have.

It could be said, that the results are reliable; the SMEs had possibility to answer anonymously. These results are related to the opinions of the individual company representatives who were active in participating in the research. The validity of the study is limited because of the limited number of responses. However, the answers were quite consistent, even though the respondents represented different sized companies from different business areas. The result of this small research gives interesting implications that should be studied in more detailed.

About the author:

Dr Hanna Pihlajarinne *has versatile experience in international software development business. In her dissertation study, she studied implications of profit- and risk- sharing attributes for collaboration performance. She is now Principal Lecturer, International Business and Innovation Management in Degree Program of International Business at TAMK.*