DEVELOPMENT OF DIGITAL AND ENTREPRENEURIAL COMPETENCES FOR THE FUTURE LABOUR MARKET NEEDS *

Daiva Labanauskaitė ¹, Erika Župerkienė ², Alexander Kumpf ³, Ligita Šimanskienė ⁴, Sophie – Marie Koller ⁵

¹,²,⁴ Klaipeda University, S. Neries str. 5, LT-92227 Klaipeda, Lithuania
³,⁵ Hochschule Landshut, Am Lurzenhof 1, D-84036 Landshut, Germany

E-mails: ¹daiva.labanauskaitė@ku.lt, ²erika.zuperkiene@ku.lt, ³Alexander.Kumpf@haw-landshut.de, ⁴ligita.simanskiene@ku.lt, ⁵s-skolle@haw-landshut.de

Received 5 January 2020; accepted 25 February 2021; published 30 March 2021

Abstract. This article aims to identify what digital and entrepreneurial competences are required in a concept of New Work orientated labor market. To achieve this, the research takes a two-folded approach by breaking down how digitalisation changes the role of employees in a digital and automated world, which competences and organisational structures are required for a successful adaption of digitalisation in the company and what the digital awareness and the current transformation status in small and medium-sized companies in Bavaria (Germany) and Lithuania looks like. The research methods chosen to deal with a scientific problem in the theoretical part include an analysis of literature sources, systematisation, synthesis, generalisation, and comparison. The status of the research findings shows that digitalisation has arrived in companies, but especially small and medium-sized companies have to overcome various barriers. The focus on employees as stakeholders is crucial to these adaptation processes. Primary research has shown that the employer’s and employee’s sides have recognized the importance of implementation. Nevertheless, there is room for adjustments. Both sides also need to find their own path to adapt requirements and expectations, to start a successful cooperation. It could help adapt to rapidly changing market trends and link stakeholders via user-friendly technology, just because this technology is created through strategic collaboration activities (Laužikas, Miliūtė, 2020).

*The research was conducted in the framework of the project Development of digital and entrepreneurial competences for the future labour market need. This project of the Baltic-German University Liaison Office is supported by the German Academic Exchange Service (DAAD) with funds from the Foreign Office of the Federal Republic Germany.
Keywords: digital competences; entrepreneurial competences; labor market


JEL Classifications: J2, J5

1. Introduction

The global megatrend of emerging technologies is colliding to disrupt both - business and society. This revolution increases productivity, shifts economics, foster industrial growth, and especially modifies the profile of the workforce. This paper analyzes digital and entrepreneurial competences needed to create and manage a business emerging from the technological transformation.

The megatrend digitalization is a booming worldwide phenomenon, one we must be involved in shaping (Degryse, 2016). To face challenges such as increasing uncertainty and volatility, agility and digitalization can be implemented (Hulla, Ramsauer, 2020). “Digitalization” means using digital technologies to change a company’s business model (Westerlund, 2020), changing the way of communication and nature of professional and personal relationships in the company (Ritter, Pedersen, 2020). Digitalization implicates changes in job roles and new processes, work and employment conditions, and industrial relations (Cijan, Jenič, Lamovšek, Stemberger, 2019). Digitalization requires a new type of business operation and organization, understanding the urgent need of rethinking work systems and the role of workforces in the context of digital transformation (Ruohomaa, Salminen, 2019; Feller, Amann, Müller at all, 2016), the impact on nature of work and the skills required (OECD, 2019) is gaining importance and is broadly discussed these days. According to Ware (2003) the very nature of work has changed and continues to evolve; the ‘Information Revolution’ is real, and industrial-age management practices are no longer adequate or appropriate for knowledge-based work and workers. Understanding the urgent need of rethinking work systems and the role of workforces in the context of digital transformation, the authors of the article describe the change of work nature by the term New Work.

Although digitalization and the changed nature of work and skills are fundamentally and rapidly changing existing businesses and organisations, the combined field of both, however, still remains scarce; especially with regards to small and medium-sized companies. Small and medium-sized companies are not very represented when it comes to digital transformation and new working systems, even though they should. SMEs generate 54.4% of overall value-added and 63.7% of overall employment in the German ‘non-financial business economy’ (SBA Fact Sheet – Germany, 2019). SMEs play an important role in Lithuania’s non-financial business economy; in 2018, they generated 69.4% of value-added and 75.9% of employment, exceeding the EU averages of 56.4% and 66.6% (SBA Fact Sheet – Lithuania, 2019). 3 out of 4 jobs in Lithuania were created by small and medium-sized enterprises, which is as much as 10 percent, more than the EU average (Activity Report of the Ministry of Economy of the Republic of Lithuania for 2019, 2020). At the same time, small and medium-sized companies face the problem of a very tentative adaption to digital innovations and New Work. Typically, they have a lack of financial resources and specialised experts, and they can’t easily afford mistakes and failure. However, the readiness of SMEs to keep pace with technological progress and innovation is crucial for sustainable economic growth.

Another important precondition for sustainable economic growth is the successful inclusion of intergenerational workers in the lifelong learning process, ensuring a balanced strengthening of their entrepreneurship and digital competences. The baby boomers, the largest age group, will retire in the next two decades. This will consequently lead to an increased shortage of skilled workers and a large number of older employees (Immerschitt, 2019). Consequently, the inevitable demographic change no longer allows to deny the necessity of changes and
adoptions. It is not enough for high digital and entrepreneurial competences to be demonstrated by workers representing the Millennials who have grown up with modern technology. The integration of the silver agers, their needs, and the demands on them should be taken into consideration when planning the social sustainability of business under conditions of the digital economy. By doing this, it is essential to always have in mind the continuously influencing megatrends, which affect the corporate world significantly.

The scientific problem can be formulated by a question: how is the labor market need for digital and entrepreneurial competences changing in the context of technological advances in business and demographic changes in the labor market?

The aim of the research is to identify what digital and entrepreneurial competences are required to a concept of New Work orientated labour market. Referring to this perception, this research aims to understand how digitalisation changes the role of employees in a digital and automated world. Secondly, it will focus on answering the question of which competences and organisational structures are required for a successful adaption of digitalisation in the company. And finally, the study will figure out the digital awareness and the current transformation status in small and medium-sized companies in Germany/Bavaria and Lithuania.

The novelty of the research: the study not only helped to determine how SMEs perceive digitization processes in business but also enabled the comparison of employers 'and employees' attitudes in assessing the need for digitization and entrepreneurial competences in the German (Bavarian) and Lithuanian labor markets. The methods applied in the research include analysis of literature sources, systematization, synthesis, generalization, and comparison in the theoretical part, and quantitative research, i.e., a questionnaire survey and data processing methods, in the empirical research.

2. Analysis of literature

Megatrends describe trends that influence and affect the entire society and economy globally and sustainably in the long term. The megatrends have long influenced the corporate world and will continue to do so, resulting in an increasingly dynamic environment. That is why general conditions such as leadership styles and other organisational structures will continue to have to be constantly adjusted (Enste, 2013). Organizational culture could help adapt to rapidly changing market trends and link stakeholders via user-friendly technology, just because this technology is created through strategic collaboration activities (Laužikas, Miliūtė, 2020).

A topic of big interest is how digitalisation is changing the economy and especially the labour market. In the context of global digitalization, various changes take place in organisational management structures and processes (Davidavičienė, Raudeliūnienė, Kaušinis, 2019). Digital innovations can increasingly replace humans and their workload at various levels; therefore, digitalisation raises questions about the cooperation between machines and humans. It is often alleged and feared that the technical transformation, especially when it comes to Artificial Intelligence, will destroy jobs (Clauberg, 2020). The term Substitutional Potential describes exactly this scenario. It stands for the proportional activities of a job which can be replaced by computers or computer-controlled machines by today. This term only relates to technical feasibility which does not necessarily mean that it will be realised in practice (Dengler, Matthes, 2018). The three megatrends (AI Everywhere, Transparently Immersive Experiences, and Digital platforms) show that the more companies are able to make technology an integral part of employees', partners', and customers' experiences, the more they will be able to connect in new and dynamic ways to employees', partners', customers' ecosystems, and platforms (Jari, Lauraeus, 2019). Digitalization is transforming the locus of entrepreneurial opportunities and entrepreneurial practices (Autio, 2018). Due to the increasing use of digital technologies, there were built new forms of socio-technological working systems which lead to massive changes in working organisations and working forms. The increasing autonomy and intelligence of technical systems are changing the requirements for human-technology interactions. Today there is broad agreement that business potential can only be fully exploited through a successful partnership between humans...
and technology. Human-technology interfaces will be of central importance in the future. The future of work lies in the intelligent and creative linking of human potential with the growing technical possibilities. These must enable close cooperation between people and technologies so that the strengths of technologies - such as repeatability, accuracy, and endurance - and the special human skills - such as creativity and flexibility - complement each other optimally. For autonomous and self-learning systems, in particular, there is hardly any certainty about how human-technology interactions can be designed to create human-friendly working conditions that promote satisfaction and personal growth (Bauer et al., 2018).

The term New Work is often mentioned in the literature in connection with digitalisation and modern working models. The more complex the digital world and the companies get, the less suitable seem to be the traditional hierarchies and working structures. For that, the organisation needs to be reinvented. Digitalisation, on the one hand, is seen as a driver of the New Work movement and enables a rethinking of old structures. On the other hand, New Work can be seen as necessary to adapt to the changing working world; this might can be seen as an interrelation between both developments (Stuck, 2020; Breidenbach, Rollow, 2019). Digitalisation, for example, enables flexibility in terms of time and space: home office, remote work, flextime, and co-working spaces are slowly becoming the norm and enable new forms of collaboration on the regional, national or international level. The association between network-level collaboration patterns and innovation may be sensitive to the geographic area set for analysis (Galaso, Kovářík, 2018). But also, executives have to adapt to changes: they have to internalise transparency, trust work, and agility, and they must actively involve the employees. Employees need more autonomy. In the frenzied competition, it is not possible to control complex companies with instructions from above. This works better with autonomous teams that have the means and the freedom of making decisions and trying things out. The desire for independence and freedom is growing. Instead of rigid hierarchies, team spirit, community spirit, and the will to work together are paramount.

Development in information and communication technology have been among the key drivers of change in working life over the past two decades. However, the ability to work anywhere and at any time can lead to greater work intensification, competition, and work-on-demand. Changes in the profile of competences that are in demand in the labor market will lead to significant changes in the structure of employment, as well as to the formation of portfolios of competences based on the assessment of the expected demand of companies (Romanova et al., 2017). But because of the constant availability, the boundaries between work and private life are slowly blurring. Therefore, there is also a desire for a better work-life balance (Vargas, Weber, 2020).

The productivity of employees is essential for every company and it is a common prejudice that decreases with age. With suitable educational training and similar measures supported by the company, productivity can be increased, also for senior employees (Walla, 2006). Strategic leadership and the development of innovation capability is of critical importance for product design and manufacturing as emerging digital technologies increasingly challenge conventional practice (Walden et al., 2020). As the stereotype of losing skills and abilities with age is even more widely spread, workers over 50 are often not offered enough training. However, there is scientific evidence that skills change with age but do not get lost. The development depends on the individual, his or her intrinsic motivation, and external influences. It is therefore not possible to generalise the assessment of the productivity of senior employees and it is not a loss of effort to invest in training measures. If a company wants to be successful in the future, it has to create an environment in which employees can grow, in which they are perceived as a human being and not as a humane resource. The movement work 4.0, in particular, has given more importance to intellectual, knowledge based and communicative activities. Knowledge preservation is becoming more and more essential, but the type of knowledge demanded is also changing faster and faster. Hence, new professional and social skills will be required of employees in the future.
3. Methodology

To determine what digital and entrepreneurial competences are required to a concept of New Work oriented labor market was conducted. Qualitative research is undertaken to attain a greater understanding of a relatively unknown phenomenon (Murshed, Zhang, 2016). During the evaluation, in-depth or qualitative interviews reveal different perspectives, detailed assessments, attitudes, motivation.

The design of the study follows a systematic approach to the study of social problems, which is based on the premise that the study of the efficiency and quality of the phenomenon/process requires a variety of research methods, both quantitative and qualitative, that complement each other at different stages of research.

Organization of research. In the first stage of the research conducted qualitative interviews, to understand how the company’s representatives perceive the digital status of transformation, the adoption of the employees to the new digital environment, and the status of New Work models in their own company.

Using the elements of target sampling, informants belonging to the territorial units of the survey geography were interviewed, no statistical generalization was sought because in qualitative surveys it is sometimes difficult to reach the respondents. The general population of the qualitative research is the managers of SMEs in Bavaria and Lithuania.

The qualitative research was conducted in form of personal interviews (face-to-face or via the phone). During the period from the 9th of January to the 14th of February 2020. 14 interviews were conducted with companies from various sectors from the SME-environment in Bavaria and 14 interviews were conducted from the SME-environment in Lithuania.

The interviews aimed to clarify how the representatives weigh the trend digitalisation and digital adoption in general and relating to their companies. Furthermore, the experts were asked to draw a picture of the current digital status with technological systems within the company. On the one hand, these questions concentrated on the steps that were already taken in the past and on the other hand, the steps that were planned for the future; with the focus on technical adjustments in the administrative area and the offices. The subsequent questions then focused on the positive and negative effects of the digital transformation on the leadership of the employees and the organisational structure that was perceived in the own firm.

Afterwards, the questions aimed to gain an understanding of the changing role of the leaders and managers as well as the employees and their competences that are increasingly required due to times of transformation.

In the second stage of the empirical research, a qualitative study was implemented, the aim of which is to understand how employees perceived the status of digital transformation in their daily work life and their company. The research questions that were set before, built a guideline for the survey and its content. The questionnaire was developed in collaboration with the project team members.

The expected result should therefore clarify how the employees saw the current digital status and its influence on their working structure. Additionally, it should give a closer look at the perception of new working models and modern organisational structures of leadership. The comparison of the actual status and the intrinsic wishes and expectations intends to indicate what companies can improve for themselves.

Leading questions of the research:
1) How does digitalisation change the role of employees and employers in a digital world?
2) Which competences and organisational structures are required for a successful adaption of the digital transformation?
3) What is the digital awareness and the current transformation status in small and medium-sized companies?

The general population of Quantitative research: SME employees in Bavaria and Lithuania. In total 192 attended employees in Germany (Bavaria) and 184 employees in Lithuania were asked to their opinions and perceptions.
The quantitative study was conducted in form of an anonymous online survey with the technical program EvaSys. The link was published on the economic social media platforms Xing and LinkedIn was distributed by the IHK Niederbayern and by Klaipeda University. The survey period took place from the 16th of December 2019 to the 17th of February 2020. The evaluation of the survey was done via EvaSys and SPSS.303.

**Research ethics.** The study followed the basic ethical principles of scientific research.

The principle of goodwill. Respondents are assured that they are not exposed to any risk associated with the research process or results that participation in the research will not lead to greater anxiety or fear.

The principle of respect for the dignity of the person. All study participants participated in the study voluntarily, and each participant’s consent to use a dictaphone to record the conversation was obtained. It is stated that the data will be used in aggregate, for research purposes. Before the research, the essence of the research was presented, the purposes for which the answers would be used were explained, and the course of the interviews were explained (how they could behave, how long the interview would take, etc.).

Principle of justice. It was explained to all study participants that the confidentiality and confidentiality of the data of each study participant would be ensured. The research procedures are explained using everyday language terminology. The analysis of the results contains only depersonalized information, statements that would at least theoretically allow the identification of the study participant are excluded, and the transcription text is not provided.

**Analysis of research data.** The results represent an evaluation in form of qualitative content analysis. The evaluation methods (by Mayring, Frenzl, 2019) that were used are processes texts that are produced in the context of social science research projects like transcripts.

**The research has several limitations.** The nonprobability sampling has been used as it was not possible to acquire the sampling frame and ensure that all representers of the target group had a reasonable opportunity to be invited to participate in the study. Although relevant references are included, some research data interpretation aspects are mainly driven by the opinions of the authors. The scope of the research is limited to digital and entrepreneurship competences, other competences are not included as a part of New Work and entrepreneurial ecosystem.

### 4. Results

A change in values within the society leads to new needs on the part of companies and employees. Furthermore, the rising influence of individualisation should not be neglected when developing an optimal business environment. An increase in opportunities and the desire for self-realisation, also at a professional level, is present. Therefore, it is increasingly important for companies to remain attractive to employees and to offer diversity and the opportunity for self-realisation within the company itself. More individuality, also in form of autonomous, independent work and personal responsibility is desired and demanded. For the employee, this might be fulfilled with the possibility of freely organising work. The company should implement a goal-oriented concept in which there are still defined responsibilities to have a minimum of structure.

Despite everything, interdepartmental cooperation should be strengthened and a "we" culture should be created. A mutual understanding towards young and old as well as employees and managers will be essential. This will probably be the biggest challenge, because up to now senior employees have been used to hierarchies and a clear division of tasks. Better cooperation in general and especially between young and old should be promoted that valuable knowledge is passed on more easily and automatically. This is highly relevant since valuable expertise could be lost with the retirement of the baby boomers. Further, it is even more important, when imagine they are to be employed after retirement and the skills of the younger generations are to be passed on to them. A respectful intergenerational relationship should be created and be seen as normal.

New training measures, such as (reverse) mentoring, coaching and tutoring programmes to support everyday learning might be helpful. Senior employees would suit well for such advisory tasks. To achieve the desired
competences, open departments and mixed teams might be the solution. Through the cooperation of mixed generations, the strengths of the individual generations become visible again and again to the others and could be adopted. Furthermore, the competences of the different generations could be mutually dependent and complementary and therefore profitable. Also, the general conditions, such as contract constructs, working time regulations, workplace design, and other special agreements should be more tailored to the individual in the future. A rethinking has to take place in which employees are again seen more as value-adding creators and, in times of a shortage of skilled workers, senior employees in particular. Especially for SMEs, it is important to offer an attractive environment to their employees because they are more affected by the effects of demographic change and the lack of skilled workers. However, it is easier for them to introduce new approaches than for large companies.

Assessing how does digitalization change the role of employees and employers in a digital world, the employees mainly wished and expected the leadership to support flexible working systems; but also, a personal feedback culture, lifelong learning opportunities and agile organisational structures. There was mainly a similar rating for the importance and the occurrence of the competences. Looking at the answers of the company’s leaders or managers, it became clear that there were important and generally expected competences and that the opinions about them were similar. But on the other hand, the satisfaction with their presence in the working world was not equally high. It can therefore be assumed that there is a need to catch up here, regarding the development of the competences.

**Summary of companies’ leaders’ insights:**

- Cloud solutions were not considered as trustworthy. The selection of suitable systems seemed to be a challenge. Problems were also seen in an ineffective system landscape and in the dependency of others (company’s partners; legal regulations).
- Companies were mainly satisfied with their current digital status (some still saw room for improvement).
- Some companies already introduced a digital responsible position or department. Reasons for adoption mainly were customers/business partners (first adaptations in the interface areas); for this the priority was mostly on the expansion of the interface technologies (to customers and partners). Automatisational supporting systems and communication platforms for employees were often already implemented. Suspected threats for the employees such as fear of job loss could not be confirmed by the companies’ leaders.
- SMEs seemed to have an easier digital integration start than the others (because of independency and smaller organisational structures). Companies often stressed the importance of the communication skills and of personal relationships/feedback.
- Managers and leaders must give up responsibility, build up trust and rely more on the employees and their freedom of opinion, autonomy and responsibility as well as expand the personal feed-back-culture and the error culture for increasing the innovation.
- An open and convinced attitude, “lifelong learning”, mobility, sensitivity and empathy/humanity, empowering nature were listed as important for a manager’s character and leadership style.
- It seemed like the bigger companies had better current conditions facing the flexible working structures. Many companies seemed to have bigger struggles with the flexibility of work than with agility. This was often justified by the fact that implementation would be difficult in terms of positions and company orientation and that the human contact between the employees would suffer.
- It was striking that the entrepreneurs mentioned autonomy and error culture often together (a closer relationship can be suspected). For the areas of autonomy and error culture, no extraordinarily strong assignments to the companies sizes could be observed.
The most common competences mentioned were empathy/knowledge of human nature (personal interaction in teams and with customers) and adaptability/compatibility. Followed by logical/analytical thinking, networking/team ability, and risk/responsibility readiness.

The choice of the competences seemed to make sense, considering the change due to increasing autonomous and independent working culture among the employees.

The current situation in the companies showed that there was room for improvement for democratic business decision culture with more influence of the employees and the lifelong learning opportunities. A better offer can be seen for flexible working structures and agile organisational structures. This means that companies were working on implementing these models, but the employees would like to see even more commitment for the future (regarding the wishes). In general, most of the competences for the future work-life were rated as especially important. On the other side, only the competences of self-reliance and intrinsic motivation were mainly considered as “strongly present” as a self-assessment of the employees. The competence with the poorest self-assessment was self- and external stress management.

Data collected on the third leading question “What is the digital awareness and the current transformation status in small and medium-sized companies?” revealed that Regarding the German and Lithuanian companies leaders, most of them seemed to be satisfied with their current digital status, even if some of them still saw some room of improvement.

The pressure of adaption was mainly perceived by the outside world. It, therefore, comes as no surprise that companies saw the incentive of digital adaption caused by their customers or business partners (first and foremost not with the employees and the improvements of internal processes). German SME executives indicated that the starting points for a digital transformation were therefore largely in these areas, e.g., many companies have...
adapted or were planning to adapt their entire surfer landscape (with interface formation) and their CRM systems in the first place and wanted to use this as a competitive advantage or the main vision of the company. The main challenges for a successful digital integration were mostly seen to lie firstly in the selection of suitable systems by the selection of either own technical systems or innovations by external providers. Managers of Lithuanian SMEs noted that topics that have been given higher priority were the automatisation of processes in the administrative era (for employees ‘support in daily tasks) and the (almost) paperless office. In this context, some companies were also sure that the fields of activity of almost all employees will change. German SME executives pointed to another aspect for the assistance of the employees was the provision of technical communication support (especially with the intention of fast and location-independent data access). For further strategic adjustments regarding the digital transformation, some companies even appointed a responsible department or person for the digital strategy.

The data from the quantitative survey complemented the information gathered during the qualitative survey on how employees view the transition to digital business, highlighting the transition to digital business work systems (Figure 1).

Comparing the benefits that were confirmed the most, the advantage of a “Flexible place of work” was chosen by three quarter (80,4% of Lithuanian respondents and 74.5% of German respondents). This response was followed by a “Better/faster communication” (71.9% of German respondents and 70.2% of Lithuanian respondents), “Flexible working hours” (60,4% of German respondents and 56.8% of Lithuanian respondents), “Efficiency/focused work” (62,4% of Lithuanian respondents and 57.8% of German respondents) and a “Better work-life balance” (50,2% of Lithuanian respondents and 40.1% of German respondents).

Summarizing the research data of the second leading question “How does digitalization change the role of employees and employers in a digital world?” German and Lithuanian SME managers indicated that regarding the positive and negative effects of digital adaption on the employee’s management, issues like different age structures among the employees, the preferences of digital and analog work as well as the importance of communication skills, personal relationships, and feedback were mentioned. According to representatives of German SME companies, there would be a danger that employees who don’t belong to the digital natives, but who have a strong knowledge of the organization/process structure, would be left behind. Therefore, it seems to be important that the implementation of a digital transformation takes place according to the top-down principle and to a fitting organisational structure. Representatives of Lithuanian SMEs mentioned that communication and integration of employees are crucial. Also, flexibility must be maintained, and the employees must be involved with their opinions (responsibility, autonomy). Autonomous teams and short distances in the organization must be supported. According to German companies’ executives, facing new tasks, the role of leaders was seen to change due to increasing autonomous and independent working culture among the employees. Therefore, they were expected to support, motivate and expand the independence and autonomy. Lithuanian SME executive ideas support this position.

Furthermore, leaders must learn to give up responsibility, build up trust and rely more on the employees and their freedom of opinion. Using the example of the increasing home office work, this meant that work (nevertheless) must be appreciated (personal feedback-culture) and that the employees must be trusted. The role of a successful leader includes the ability to let the employees ‘opinions change the organization and expand the error culture for increasing innovation. The views of German and Lithuanian SME managers coincided that an open and convinced attitude was demanded in addition to “lifelong learning”, mobility, open-mindedness, sensitivity, and empathy/humanity. Generally, the lead role was rated to be more of an empowering nature to help the employees to become more independent and self-responsible.

The results of the quantitative study helped to identify the expectations of SME employees for leadership and managerial work style.
Respondents singled out these Expectations regarding leadership in a company (Figure 2): “Agile organizational structures” (43.8% of German respondents and 42.6% of Lithuanian respondents). Also, the approval rate for wishing “Lifelong learning opportunities (through mentoring/supervisor/coaches)” (52.6% of German respondents and 48.8% of Lithuanian respondents), “Personal feedback/personal promotion” (53% of German respondents and 51% of Lithuanian respondents) and “More flexible working (time, place, content)” (54.7% of German respondents and 52.4% of Lithuanian respondents) were close to each other. The last one was the most common wish for modern leadership and the working environment overall.

The third leading question “Which competences and organisational structures are required for a successful adaption of the digital transformation?” From the competences that were listed before, both Lithuanian and German informants indicated the two most common ones were empathy and knowledge. They were followed by a high agreement for logical/analytical thinking, networking/team ability, and risk/responsibility readiness. During the interviews, it was noticed that some companies had the opinion that the employees were increasingly acting like their own entrepreneurs with autonomous and independent work activities. Logical and analytical thinking as well as readiness for risk and responsibility were underlining this opinion. Another conjecture that was expressed by the German interviewees was that the tasks or the execution of the work were becoming more specific for each employee. Therefore, employees would rely more on coordinated project groups and teamwork (everyone brings specific skills with him/her). According to representatives of Lithuanian SMEs, the characteristic of strong communication and the idea of cooperation/teamwork was particularly important for teamwork.

Regarding the internal processes as well as the contact with customers, German employers wanted their employees to be solution-oriented, self-confident, and risk-taking in a way of not being afraid of doing mistakes. Most of the participants agreed that agile work would increase. The growing independent/autonomous work would assume more personal responsibility and “being the own entrepreneur”. According to their statements, the German and Lithuanian companies have mainly adapted to this. Many companies even promoted their employees to get involved in decision-making processes. In this connection, a lived error-experimental culture should promote motivation and innovation and was inserted in some firms. Due to agility and flexibility, many companies introduced digital communication channels and mobile devices as support. One topic that could be regarded with the most skepticism, was flexibilization. Specific task management/area of activities, industries,
dependence on customer times or positions within the company were the biggest barriers for full implementation. Only some of the participants could therefore claim to have implemented it broadly. Some were also actively against it because they feared human alienation. This statement is appropriate since many companies also (increasingly) valued personal contact. So have some companies also implemented a personal feedback culture and career planning for their employees.

The results of the quantitative study helped to identify the importance and occurrence of competences in a labor market (Figure 3).

![Figure 3. Assessment of importance and occurrence competences.](image)

Starting with the similarities, almost the same responses comparing the importance and occurrence mentioned by the German respondents could be seen for the competence “Self-reliance/intrinsic motivation” (arithmetic average of importance 3.1, the arithmetic average of occurrence 3.2), “Innovation/creativity technology” (arithmetic average of importance 2.6, the arithmetic average of occurrence 2.7) and “Self-/external stress management” (arithmetic average of importance 2.4, the arithmetic average of occurrence 2.5). Lithuanian respondents named the following competences, where the gap between importance and occurrence is the smallest: “Mobility, flexibility” (arithmetic average of importance 2.6, the arithmetic average of occurrence 2.6), „Innovation/creativity technology” (arithmetic average of importance 2.9, the arithmetic average of occurrence 2.8) and “Self-/external stress management” (arithmetic average of importance 2.6, the arithmetic average of occurrence 2.7), “Self-reliance/intrinsic motivation” (arithmetic average of importance 3.2, the arithmetic average of occurrence 3.1). On the other hand, the highest disparity of importance and occurrence in the assessments of German respondents could be seen for the consequences of “Conceptual, structured work” (arithmetic average of importance 2.5, the arithmetic average of occurrence 3.5). The assessment of Lithuanian respondents differed the most in the competence “Risk/responsibility” (arithmetic average of importance 2.8, the arithmetic average of occurrence 3.8). The average of the people rated this competence less important than it is available to them.
After summarizing the results of qualitative and quantitative research, the main digital and entrepreneurial competences for the future labor market were identified (Table 1).

Table 1. Summary for the results of digital and business competences needs.

<table>
<thead>
<tr>
<th>Results of quantitative research</th>
<th>Digital competences</th>
<th>Entrepreneurial competences</th>
</tr>
</thead>
<tbody>
<tr>
<td>The employees mainly wished and expected the leadership to support flexible working systems, personal feedback, lifelong learning opportunities, and the ability to create agile organisational structures.</td>
<td>In general, most of the competences for the future work life were rated as particularly important (communication skills, personal relationships/feedback, high agreement for logical/analytical thinking, networking/team ability, risk/responsibility readiness). On the other side, only the competences of self-reliance and intrinsic motivation were mainly considered as „strongly present” as a self-assessment of the employees. The competence with the poorest self-assessment was self- and external stress management.</td>
<td></td>
</tr>
<tr>
<td>There was a clear room for improvement for democratic business decision culture with more influence of the employees and the lifelong learning opportunities as well as an error/experimental culture.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Results of qualitative research</th>
<th>Companies often stressed the importance of communication skills and of personal relationships/feedback.</th>
<th>The most common competences mentioned were empathy/knowledge of human nature (personal interaction in teams and with customers) and adaptability/compatibility. Followed by logical/analytical thinking, networking/team ability, and risk/responsibility readiness.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers and leaders must give up responsibility, build up trust and rely more on the employees and their freedom of opinion, autonomy, and responsibility as well as expand the personal feedback-culture and the error culture for increasing innovation.</td>
<td>An open and convinced attitude, „lifelong learning”, mobility, sensitivity and empathy/humanity, empowering nature were listed as important for a manager’s character and leadership style.</td>
<td>The choice of the competences seemed to make sense, considering the change due to increasing autonomous and independent working culture among the employees.</td>
</tr>
</tbody>
</table>

Based on the results of the study, the employees and employers surveyed found a very similar view of the importance of digital and entrepreneurial competences for the future labor market and changes in leadership competences, giving more freedom of choice and autonomy to the employee to act proactively and responsibly.

Discussion

The collection of secondary data showed that many experts, leaders, and studies were sure that there is a need to adapt to new organisational structures and the new world of work. The term New Work was therefore a common expression in this discussion. The secondary literature saw that the term New Work covered various aspects of how the world of work should change for employees. In general, New Work can be explained by the changing demands and roles of employees and employers. In New Work the employee, as a human, represents the center of the company in entrepreneurial ecosystem (Figure 4).
On the one hand, this means that the employee should be increasingly involved in important company processes/decisions. On the other hand, the employee is more and more seen as an independent and self-organized person, an own entrepreneur. The leaders, therefore, need to promote and motivate the employees to this position. They need to reflect a coaching mentality and a supporting role towards corporate culture and employees’ growth. Additionally, they must be able to give up control and spread trust towards employees, but also open for transparency and strong communication. Teamwork and the “wisdom of many” as well as a de-hierarchized and decentralized organization must be supported. This should then lead to more creativity and innovations with a living error and feedback culture, according to the secondary literature. Two terms that go along with New Work and that represent the main elements of entrepreneurship competences were agility and flexibility. Regarding to secondary data, the design of work is becoming more and more flexible in terms of time and space. Asking the companies’ managers and leaders in the qualitative interviews, they expressed a similar opinion: autonomous teams and short distances in the organizations were seen as important to support. Additionally, strong communication skills, a personal feedback culture, expanding independence and autonomy were often mentioned. Generally, the leaders’ opinion was pretty similar to the secondary data.

**Conclusions**

The future labor market associated with business digitalization processes operates in a New Work culture environment, which provides good incentives for making companies more employee-friendly and for bringing people into the center. The demands and requirements for special competences facing the employees, has also changed. To enable an agile and flexible work culture, employees need to take responsibility, independence and
act like entrepreneurs. At the same time, it is becoming more and more important to be cooperative and highly communicative when working in an agile, networked company. The “wisdom of all” stands in the center of innovative work and must therefore be used by everyone. As a result, it can be said that German and Lithuanian companies and employees are in general open to digital changes under conditions of a New Work model. It can also be detected that companies have already initiated changes in both areas, but the full potential has not yet been realized. Even if SMEs face challenges of internal adaptation, the time of rapid change and the increasing focus on the human side can be seen as an advantage over the big players. Short organisational ways, clear structures, and a family- and people-oriented corporate atmosphere can reflect decisive advantages for small and medium-sized companies. This should be exploited even more in times of digital change and newly developing employees’ models.

Assessing how does digitalization changes the role of employees and employers in a digital world and their expectations for digital and entrepreneurial competences, the employees mainly wished and expected the leadership to support flexible working systems; but also, a personal feedback culture, lifelong learning opportunities, and agile organisational structures. There was mainly a similar rating for the importance and the occurrence of the competences in the evaluations of employers and employees representing the Lithuanian and German labor markets. Looking at the answers of the company’s leaders or managers, it became clear that there were important and generally expected competences and that the opinions about them were similar. But on the other hand, the satisfaction with their presence in the working world was not equally high. It can therefore be assumed that there is a need to catch up here, regarding the development of the competences.

References


Make your research more visible, join the Twitter account of ENTREPRENEURSHIP AND SUSTAINABILITY ISSUES: @Entrepr69728810


Make your research more visible, join the Twitter account of ENTREPRENEURSHIP AND SUSTAINABILITY ISSUES: @Entrepr69728810


Acknowledgements

The research was conducted in the framework of the project Development of digital and entrepreneurial competences for the future labour market need. This project of the Baltic-German University Liaison Office is supported by the German Academic Exchange Service (DAAD) with funds from the Foreign Office of the Federal Republic Germany.

Daiva LABANAUSKAITĖ is a Doctor of Social Sciences, associated professor at Department of Economics, at Faculty of Social Sciences and Humanities, at Klaipėda University, Lithuania. She is author of over 40 scientific publications, a monograph, among those many papers are related to the service economy and tourism. Research interests: service economy, sustainable development, green economic growth. CSR. ORCID ID: https://orcid.org/0000-0002-3538-3991.

Erika ŽUPERNKIJENĖ is a Doctor of Social Sciences, associate professor at the Management Department of Klaipėda University. She has 18 years of experience in teaching and more than 20 years of practical experience in business as an entrepreneur. Co-author of one monograph and three other types of books, and over 30 publications have been published in various scientific journals. She provides training for staff of Lithuanian private and public sector organisations. Research interests: HRM, CSR, leadership, entrepreneurship. ORCID ID: https://orcid.org/0000-0002-1505-0962.

Alexander KUMPF is a Doctor of Engineering (graduated from the Technical University of Munich), had several years working experiences indifferent positions in leading companies worldwide (e.g., BMW, MAHLE) and is currently Professor for Purchasing and Logistics at the University of Applied Sciences Landshut/Germany. Author (or co-author) of several monographs and scientific papers published mainly in Germany. Auditor for program and system accreditation of Universities working for international agencies. Research interests: Digital Transitions in Operations (Manufacturing, Logistics and Supply Chain), International Operations Network, Inventory Management, Lean Management in Operations and Change Management. ORCID ID: https://orcid.org/0000-0002-7198-6546.

Ligita ŠIMANSKIENĖ is a Doctor of Social Sciences, professor and head of Management Department, at Social Science and Humanities Faculty at Klaipėda University, Lithuania. Author (or co-author) of 5 monographs, about 100 research articles published in Lithuania and abroad. Research interests: organizational culture, sustainability, teamwork, leadership, CSR. ORCID ID: https://orcid.org/0000-0002-0548-0459.
Sophie Marie KOLLER is a master’s graduate in International Business at the University of Landshut. For her master’s thesis "the impact of the economical megatrend digitalization on modern work systems and organizational excellence" she accomplished a practical research for companies in Bavaria in 2020. The subject of investigation was the digitization and New Work developments within 14 companies.

ORCID ID: https://orcid.org/0000-0003-0913-7444