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COMPETENCE MANAGEMENT: FUTURE SKILLS – SURVIVAL FACTOR FOR COMPANIES

Abstract

Scientists and practitioners agree. Digital technologies, processes, products and services are the basis for resilient and sustainable business models (Fend and Hofmann 2020). But often these projects are either not implemented at all or not with the planned added value. Researchers from different disciplines analyse the causes of this failure. In this paper, the authors look at the problem from the perspective of competence management as an enabler for organisational development. Two concrete measures are presented, one at the management level and one at the employee level, with which the transformation of companies can be successfully shaped.

1. Current Situation in Germany

Digitalisation is a key driver of entrepreneurial change. In the course of developing new technologies, not only new products and services are created, but processes and structures also change (Fend and Hofmann 2020). Various studies show that only 50% of these change measures and the introduction of new products and services lead to the desired results (Ley & Bley 2016). It is particularly striking that Germany, as a high-tech country and technology leader, lags behind its own expectations and demands here (Proeger et al. 2020). Already in 2018, more than 63 percent of German companies stated that they had lost out on the topic of digitalisation or were laggards in their respective industry (CISCO 2020). But even by 2021, this situation has not improved. A study by the European Union (European Commission 2020) shows that German companies are only in the middle of the pack in terms of digital competitiveness, far behind the leaders Finland, Sweden, Denmark and the Netherlands. 75 percent of German companies are adapting existing products and services in the course of digitalisation and more than half are developing new products and services or planning to do so. The fact that this is only good enough for a place in the European midfield is due to two main reasons from a personnel and organisational perspective: On the one hand, there is a lack of skilled workers to implement digital strategies, and on the other hand, managers lack the necessary skills to organise the digital transformation (Schwarz Müller et al. 2020).

In an analysis by the industry association Bitkom (2020), 58 percent of

companies state that the lack of specialists is one of the major obstacles and that this figure has worsened by nine percent since 2018. In German craft enterprises, the situation is even more dramatic. 72 percent of companies have major problems finding qualified employees. This has consequences: A study by the TU Dresden shows that corporate culture, leadership culture and the introduction of a digital mindset are among the absolute success factors of digitisation projects. The right employees make all the difference (Ley and Bley, 2016).

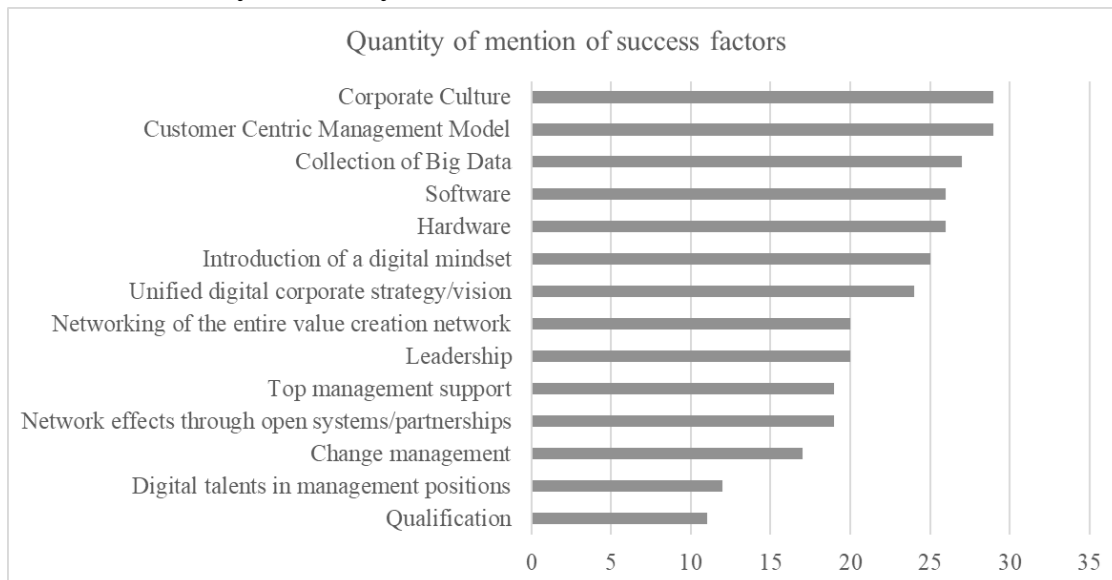


Figure 1: Success factors for digitisation projects (Ley & Bley 2016)

Companies need to rethink their digitalisation projects in order to be successful in the long term. While we talk about the introduction of technical solutions in digitisation projects, the term "digital transformation" means the active change of everyday life, the economy and society through the use of digital technologies and techniques (Schallmo and Williams, 2018). This means that companies need to change their focus. It is not enough to anchor individual digitalisation projects in the strategy. "Digital transformation" means that companies "think digitally", create corresponding qualification offers, for example in the form of "learning on the job", that they introduce agile ways of working and train and develop future skilled workers for digitalisation.

2. What skills do managers and skilled workers need?

Against this context, the question arises as to the competences that companies need in order to successfully manage the digital transformation. In the current discussion, a shift towards an anticipatory approach has been taking place for several years. The traditional approach to competence management looked retrospectively into the past. Employees were evaluated on how well they developed and used certain competences and skills. In the anticipative approach, companies look into the future and use the tools of competence management in the sense of strategic management

(Karwehl 2021; Ackermann et al. 2018; Heyse 2007). Companies therefore need to know which competences employees in different positions will need in the coming years. Due to the continuing labour market, companies are increasingly tending to develop these competences in their employees (Sieber et al., 2020).

Various studies show that skilled workers need to develop the competence to learn and solve problems independently in addition to classical IT skills and job-specific knowledge (Dressler et al. 2019, Lehmann et al. 2021; Friedrichsen and Wersig, 2021). This enables them to master challenges in the planning and introduction of new technologies and processes independently and in a resource-saving manner (Dressler et al. 2017). Not everyone can do this. Decision-makers in companies are well aware that they need to develop digital skills among employees and managers. A recent study by KfW Bank (Leifels 2021) shows that more than 30 percent of SMEs see a medium or extended need for further training in this area, even if many training courses are not currently taking place with reference to the corona pandemic. In addition to classic IT skills, managers also need additional competences for the implementation of the digital transformation, such as critical thinking, the readiness for agile leadership as well as communication and negotiation skills (Sauter et al. 2018).

3. How companies can provide these competences?

As a primary method for the training and further education of professionals in the company, the facilitation method, especially in workshops and seminars, is target-oriented. In this approach, participants work in groups supported by a facilitator. The aim is to create a joint learning process with all group members. Through the facilitation method, participants learn and train to develop solutions to problems, learn job-specific content and apply it (Preissler and Vielstich, 2019).

For these qualifications, companies need facilitators who take a neutral position and guide the participants. To do this, they must have certain key qualifications, including personal, activity and implementation-oriented, technical-methodical and social-communicative competences. As a rule, these training programmes take place with heterogeneous groups. The facilitator encounters different characters who have different motivations and intentions for participating. Furthermore, the participants have different levels of knowledge and apply what they have learned in different sub-processes in the company. These go beyond the formal qualifications and enable competent interaction with the participants.

A research project of the Fraunhofer IMW and the Institut Chemnitzer Maschinen- und Anlagenbau e.V. developed this method in a project that examined collaboration between people and machines (robotics) in manufacturing companies. In a downstream project, it was found that employees increase their competences in this area.

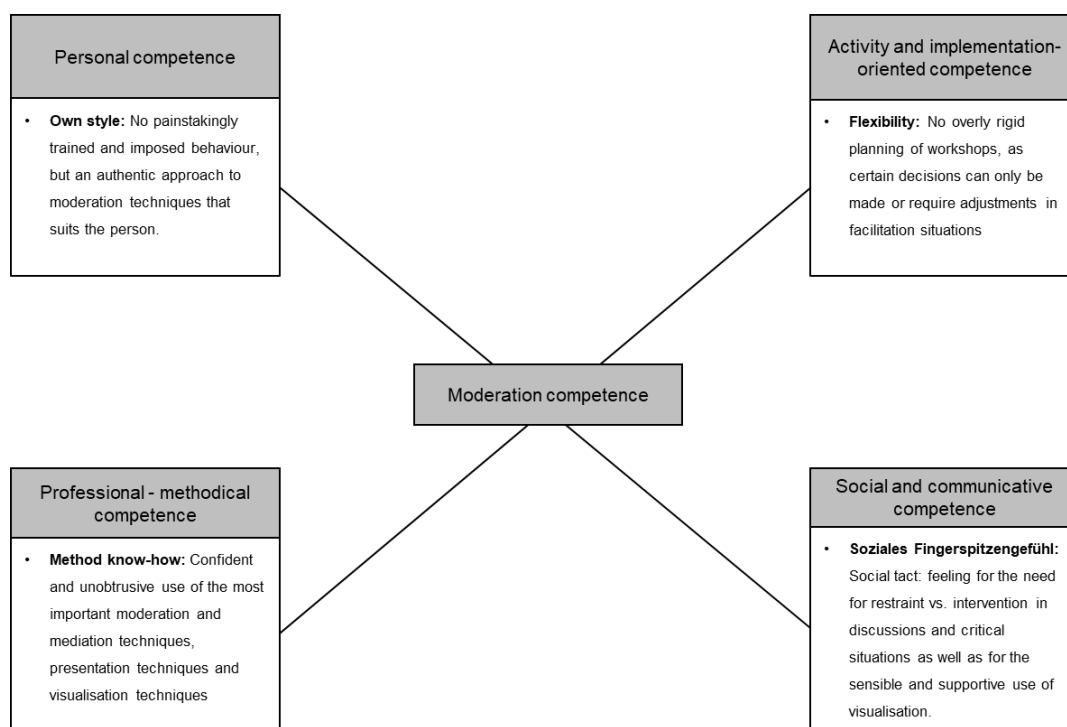


Figure 1: Necessary competence classes for facilitators (based on Erpenbeck et al. 2017)

The digital transformation presents companies from all sectors with new challenges. Therefore, they need to develop suitable offers to cope with the need for reskilling and upskilling. A European research consortium has investigated these "Future Skills for Digital Transformation" for managers in a project funded by the EIT Health initiative.

According to the results, these Future Skills can be divided into three main areas (EIT Health "Future Digital Skills" 2020):

1) **Management:** In order to manage the digital transformation, managers need to keep an eye on financial aspects, identify business potential and ensure improved use of digital technologies. Companies should therefore strengthen these competences that enable managers to implement digital strategies.

2) **Fundamental Skills:** The digital transformation places new demands on cooperation and communication. One reason for this is the developments towards a VUKA world, which make our working conditions seem increasingly volatile, uncertain, complex and ambivalent. In addition, managers need skills in the fundamental handling of digitalisation and the corresponding technologies, as well as methodological and social skills. Because only in this way can they act professionally in a digitalised working world.

3) **Application of transformative technologies:** Managers must be empowered to enable employees at all levels of qualification to understand and apply technologies as drivers of digital transformation in the work context. In doing so, they must convey the transfer to the field of work and strengthen the power of innovation.

In addition to the thematic content, the learning design is of great importance for a needs-based qualification offer. In figure three you can see an explicit approach for the necessary further training offers for managers in the healthcare sector. In order to successfully implement the digital transformation, for example in a hospital, managers at all levels need basic skills to understand the technical possibilities of digital solutions and to use them in a targeted manner. Knowledge about the use of artificial intelligence in diagnosis or the use of imaging procedures in radiology are examples of this. But knowing these technologies and possibly even being able to apply them is not enough to implement this procedure. Personal skills such as employee orientation or the use of transformational leadership elements are just as necessary as the willingness and ability to work in an agile manner. These fundamental skills form the basis for successful digital transformation. With specialist training in the relevant technologies, for example in the use of robotics or technical assistance systems in the treatment of patients, managers from the medical or administrative sector have the tools for the successful and sustainable introduction of digital technologies.

This content must be adaptable to the individual needs of the learners. They need sufficient space for time and place-independent learning with the help of modern learning technologies. This means that companies must be aware of the potential of CET. The time off for training and the associated acquisition of competencies by managers amortises the costs of CET many times over. Examples from the health sector in the EIT Health project show that the number of successful projects, the acceptance of new technologies and employee satisfaction increase. As a consequence, this reduces psychological stress in the workplace. In order to be able to design the learning process flexibly and efficiently, we recommend the use of digital and hybrid teaching/learning forms that enable location- and time-independent learning. Elements of the flipped classroom approach and blended learning are the most suitable.

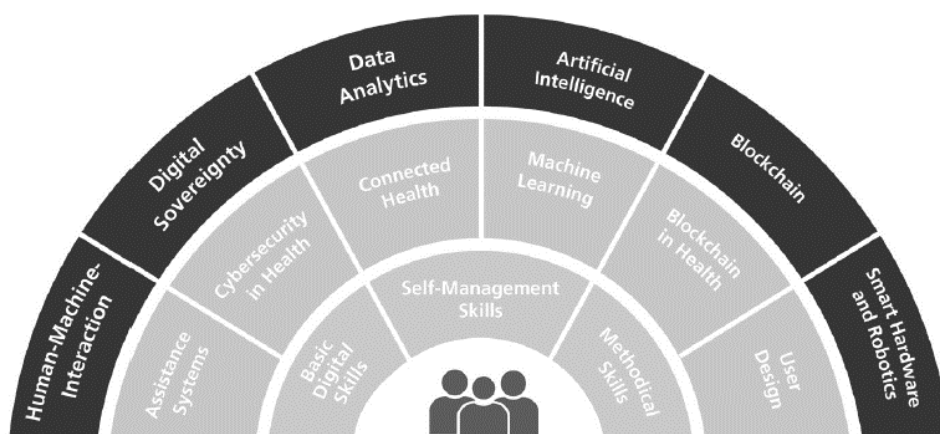


Figure 3: Exemplary content for the health sector (Fraunhofer Gesellschaft in the context of EIT-Health "Future Digital Skills", 2020, © Fraunhofer)

4. Conclusion

Studies from different disciplines analyse the causes and obstacles for the creeping digitalisation in organisations. From the perspective of human resources and organisational theory, anticipatory competence management, as a tool of strategic management, offers a suitable approach for improvement. Companies must determine the required competences and their characteristics at the organisational and individual level. The results of current research projects show that the use of internal competence development measures helps to close future competence gaps. The authors show that the facilitation method is a working approach for competence development at the employee level. Managers, in addition to their classic management skills, must also have digital basic skills, agile working methods and personal skills to enable the company to use transformative technologies in a resource-efficient way. By applying these internal competence development measures, organisations are enabled to successfully manage the digital transformation and remain competitive.

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