People Powering Progress: How Human Resource Influences Your Company's Digitalization and Sustainable Growth

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Abstract

The digital world holds many opportunities and challenges for us. These changes affect all the basic pillars of sustainability, including the economy, society, and the environment. They primarily affect companies, specifically their productivity and profitability, so it is not an exaggeration to say that nowadays, we can consider the digital maturity of companies as one of the driving forces of the economy. The research aims to prioritise the digital competence of the workforce among the indicators of digital maturity, which, based on my hypotheses, has the greatest impact on the profitability of businesses. Another main research goal is to map the cognitive sustainability-related activities of human resources employed by companies and then present the relationship between digital maturity and sustainability through human resources.

In this study, the digital maturity of companies was assessed, especially the role of human digital skills in productivity based on Maslow's business pyramid and a SWOT analysis. I compared the cognitive sustainability-related activities of human resources and examined how this affects the company's effectiveness.

1. Introduction

Digital transformation holds countless opportunities and challenges for today's society. Since society and its environment are constantly changing, these new challenges and opportunities, as well as the adaptation to them, greatly influence the future of society (*Szabó et al., 2018*).

In addition to society, digital transformation also significantly influences the other pillars of sustainability, the economy and the environment (*Zöldy et al., 2022*). It follows consistently from these that digital transformation forces companies to make continuous changes to maintain their competitiveness and profitability (*Vaz, 2021*). Information and communication technologies, big data analyses, and digital technologies offer many new opportunities but at least as many challenges for existing companies (*Kache and Seuring, 2021*).

Digital maturity has become the basis of companies' competitiveness. The most important factor for companies is the person himself (*Vaz, 2021*). Digital transformation induces small challenges in companies every day, which company leaders must consider. These developments also enable the collection and analysis of data, which is now indispensable for companies (*Herbert, 2017*). The development of the digital maturity of companies is not a sudden, one-step process. It consists of many small innovations from which ideas about digital transformation are born (*Denicolai et al., 2021*). When considering these, they influence the company's business strategy and set priorities with their help. (*Szalmáné Csete, 2022a*). The basic condition of digital maturity is the assessment of organisational maturity according to how and at what level the company stands as a psychological organisation and an individual. One of the drivers of digital maturity is the digital competence of human resources (*Jukić et al., 2022*). We can say that human resources for companies are the joint appearance of people and technology. These are no longer optional concepts (*Schuler et al. 1993*). Knowledge is power.

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This statement is more relevant today than ever (*Toffler, 2022*). Thanks to digital developments, expanding experiential learning has become possible and increasingly important (*Kolb, 2014*). In a fast-paced and ever-changing world of development, information overload, and societal complexities, cognitive sustainability has become a critical framework for promoting resilience, adaptability, and long-term cognitive health (*Zöldy et al., 2022*). The goal of cognitive sustainability is to make the concept of sustainability describable and to be able to determine its essence, fairness and consequences (*Zöldy et al., 2022*). With the development of cognitive functions, the limits of environmental resources became more and more assessable, which became an important factor in corporate competitiveness (*Szalmáné Csete, 2022b*). The reason for this is to learn about consumer motivations. To do this, stakeholders constantly collect consumer data, analyse them thanks to digital developments and define consumer behaviours more precisely (*Majerova, 2022*). Consumers change their environment with their activities, and this has a strong impact on companies. Therefore, companies must use resources more efficiently and effectively (*Haddock-Fraser et al., 2010*). Today's generation is particularly sensitive to the possibilities of cognitive sustainability. Many of them struggle with climate anxiety, which affects the social sphere and the activity and financial stability of the economy (*Ojala et al., 2021*). For the future of society, the digital maturity of human resources, their view on cognitive sustainability, and their integration are crucial (*Zhanbayev et al., 2023*). Integrating these into our way of thinking, economic models and technological developments contribute to achieving the goals of sustainability and increasing the competitiveness of companies that quickly apply them (*Szalmáné Csete, 2022a*)

This research seeks answers to the following hypotheses. Firstly, among the indicators of digital maturity, the digital competence of human resources has the greatest impact on the profitability of businesses. Secondly, the cognitive sustainability-related activities of the human resources employed by the companies affect their competitiveness and the achievement of their sustainability goals.

2. Data and methods

This research is based on the application of two methodologies. It applies Maslow's needs pyramid to businesses and conducts a SWOT analysis.

Figure 1. **Business Maslow's Pyramid**
Source: own editing based on Tay and Deiner (2011)

Based on Maslow's pyramid above, I classified the experiences and needs of human resources related to cognitive sustainability and the opportunities available by developing digital competencies.

Maslow believed in the need for cognition and understanding (Yadolla, 2009). According to the American psychologist Abraham Maslow (1908–1970), humankind's main motivation is to satisfy their needs. To prove this, he conducted research, which was the pyramid of needs. He presented this theory 1943 in his article *The Theory of Human Motivation*. The focal point of his theory is that all people desire self-actualisation, but their basic needs must be met (*Majerova, 2022*). Self-actualisation can be achieved when basic needs are already satisfied. Maslow assumes that individual behaviour is decisively

determined by the degree to which an individual's needs are satisfied. According to his theory, if a person cannot satisfy one of his basic needs, he will not be able to satisfy other, more complicated, complex needs. These needs depend on each other, which is why they can be represented in the form of a pyramid (*Fig. 1.*). While deficit-motivated behaviour can be observed in the first four levels, growth-motivated behaviour can already be found in the fifth level (*Beck-Bíró, 2009*).

The first level is the biological to physiological needs necessary to stay alive: food, drink, air, and sleep.

The next level is the level of safety needs, it can be fulfilled by society or family: law and order, emotional security, health.

The third level is the love and belonging needs. It refers to human relationships: friendship, trust, acceptance, and love.

The esteem level includes self-esteem, achievement, and respect. We distinguish two parts of this. One is the individual's self-esteem; the other is the desire for reputation or respect from others.

The self-actualisation needs are at the highest level. This need level includes the person's full potential and the realisation of this potential (*Mcleod, 2024*)

By understanding Maslow's pyramid of business, companies can create a more motivated and productive workplace. The basic pillars are the same as the Maslow pyramid, but the needs supplement the needs belonging to each pillar through business. Physiological needs are supplemented with competitive salaries and flexible work in the business world. The safety needs include a safe work environment and job security in this model, which is important for the employee. We could see that during the COVID-19 epidemic, this point became the basis of needs. Needs for love and belonging in the workplace mean that colleagues can connect. The company can easily contribute to this with team-building events and a pleasant working atmosphere, achieving strong employee cohesion and a corporate culture where people enjoy working. The esteem level includes the recognition and reward of employee performance. The highest level of self-actualisation needs include providing opportunities for personal and professional growth. This contributes to the reduction of employee fluctuation (*Peak Frameworks, 1998*)

The SWOT analysis (Strengths, Weaknesses, Opportunities and Threats) is excellent for assessing these four aspects of businesses. The SWOT analysis is a tool used to identify a company's current competitive advantages over its rivals and to reveal weaknesses that should be improved to maintain or gain a competitive advantage. It takes into account both internal and external influences. This way, opportunities and threats outside the company can also be mapped.

3. Results and discussion

I divided the research results into three subsections based on the applied methodologies. First, based on the business Maslow's pyramid method, I explored the digital competencies of human resources influencing the company, and then I examined the experience factors related to cognitive sustainability. I analysed the effects of the digitalisation capabilities of human resources and their knowledge about cognitive sustainability with a SWOT analysis from the point of view of companies' competitiveness.

Cognitive sustainability promotes lifelong learning, a fundamental pillar of cognitive health and well-being. Lifelong learning encourages individuals to engage in continuous education, skill development, and intellectual exploration. With a curiosity, growth, and adaptability mindset, individuals can remain active, flexible, and receptive to new knowledge, ideas, and experiences, thereby developing cognitive agility and problem-solving skills.

Using cognitive sustainability, creating the right environment can promote cognitive function, creativity, and overall well-being. Exposure to a variety of sensory stimuli, engaging cultural activities, natural environments, and interactive technologies can stimulate cognitive processes, promote creativity, and enhance cognitive flexibility, activating a vibrant and healthy mind (*UGreen, 2024*)-

Cognitive sustainability includes social cohesion, positive social interactions of individuals, shared experiences, knowledge, and skill development. Digital transformation contributes to this. Thanks to digitalisation, we can develop our skills for a lifetime, easily expand our knowledge, and share our knowledge with others. Based on Maslow's business pyramid, described in the methodology, cognitive sustainability is present at all five levels. At the physical and security level, basic needs, the resources required, and their security are of primary importance to the individual. At the level of togetherness, close cohesion between individuals appears, for example, in friendships or family relationships. At the Esteem level, relationships based on respect for others, trust, and individual performance appear as an important indicator of cognitive sustainability to preserve mental health. The highest level includes creativity, stress reduction, easier problem-solving, and self-realisation, which are considered some of the most important indicators. Digital maturity is essential for developing cognitive skills. For example, it strengthens family and friendship relationships at the belonging level, even if there is a large physical distance between family members or friends, or it increases performance and knowledge by developing digital skills at the esteem level. On the other hand, the greatest emphasis is placed on the level of self-

actualisation since digital maturity increases cognitive creativity thanks to the various platforms, and the solution to any problem is simplified thanks to digital networks.

Cognitive sustainability and digital maturity impact individuals, influencing their knowledge, skills and abilities, attitudes, and motivations, but they do not always emphasise the same factor. Companies must assess and develop these indicators to increase competitiveness. Based on Maslow's business pyramid, the relationship between cognitive sustainability, digitalisation and human resources can be represented below (*Fig. 2.*):
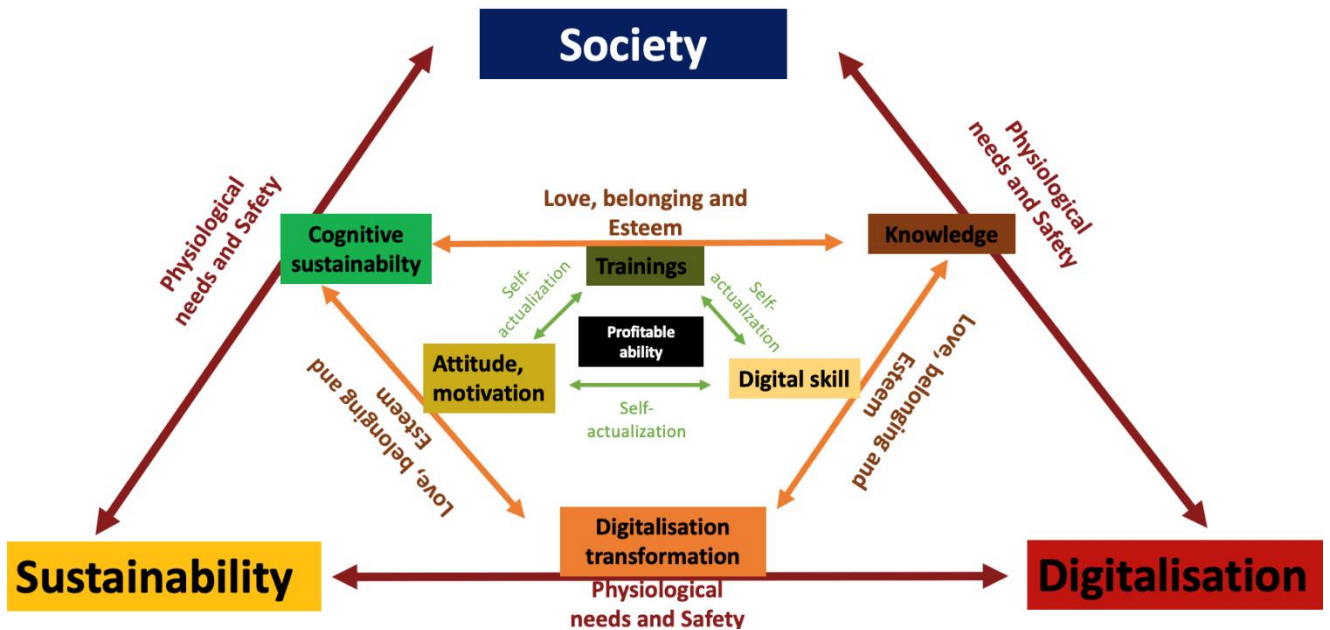

Figure 2. **The role of human resources in increasing digital maturity and sustainability is based on the Business Maslow Pyramid**.
Source: own source

The second research methodology of this study is the SWOT analysis. Based on the factors determined by the first methodology, I examined the external and internal factors of digital competence and cognitive sustainability experiences of human resources from the companies' point of view. We can only influence the internal factors from the company's point of view, but we should not neglect the assessment of external factors either, as this makes it easier to adapt and gain a competitive advantage.

Table 1. SWOT analysis of human resources' digital competence and cognitive sustainability experiences
Source: own source

	Strengths	Weaknesses
Internal	- shared knowledge - skills and abilities development - attitude and motivation - digitalisation competence - strong workplace cohesion - cognitive sustainability knowledge - loyalty to the company - mostly stress-free work, avoiding the risk of burnout - More transparent and detailed communication with human resources - use the available applications (for example, phone number recognition for the company's phones	- fluctuation of developed workforce - dissatisfaction arising from environmental awareness - training a new competitor, especially in the Small and Medium-sized Enterprises sector
	Opportunities	**Threats**
External	- increasing creativity arising from the environment - municipal environmental protection measures at the company headquarters - green environment	- the geographic location of specialists - digital challenges for the older colleague - the appearance of competitors following new digital and sustainability principles on the market - climate anxiety

As it appeared in the results of the SWOT analysis, the competitiveness of companies depends significantly on the capabilities of human resources and their spatial location. In rural areas, the number of students studying sustainability and ICT professionals is significantly lower, which is a significant source of danger from the point of view of corporate competitiveness (*Fig. 3.*), In the two rural regions, nearly as many people are studying a sustainability or environment-related major as in Budapest. The data are available on the websites of Eurostat and FELVI.
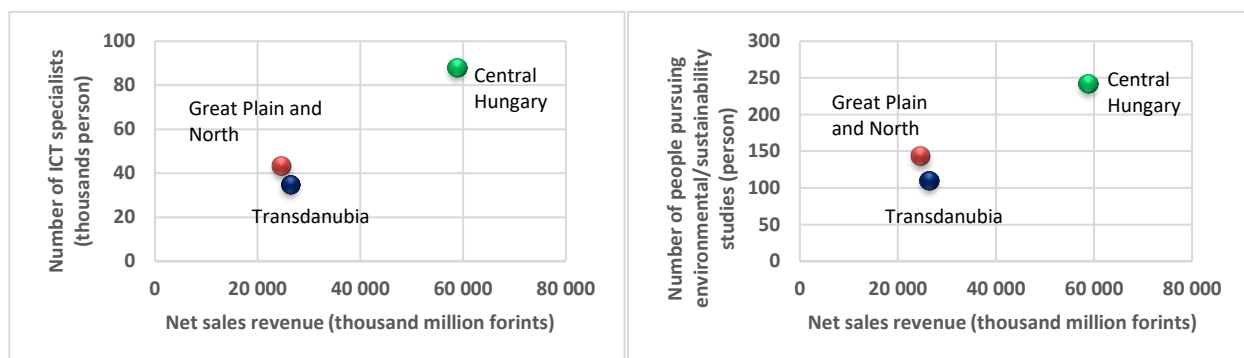

Figure 3. **ICT specialists and students of environmental studies**
Source: own source based on 2018 data

Based on these research results, the flowchart below illustrates the role of human resources in companies' digitalisation and sustainability efforts.
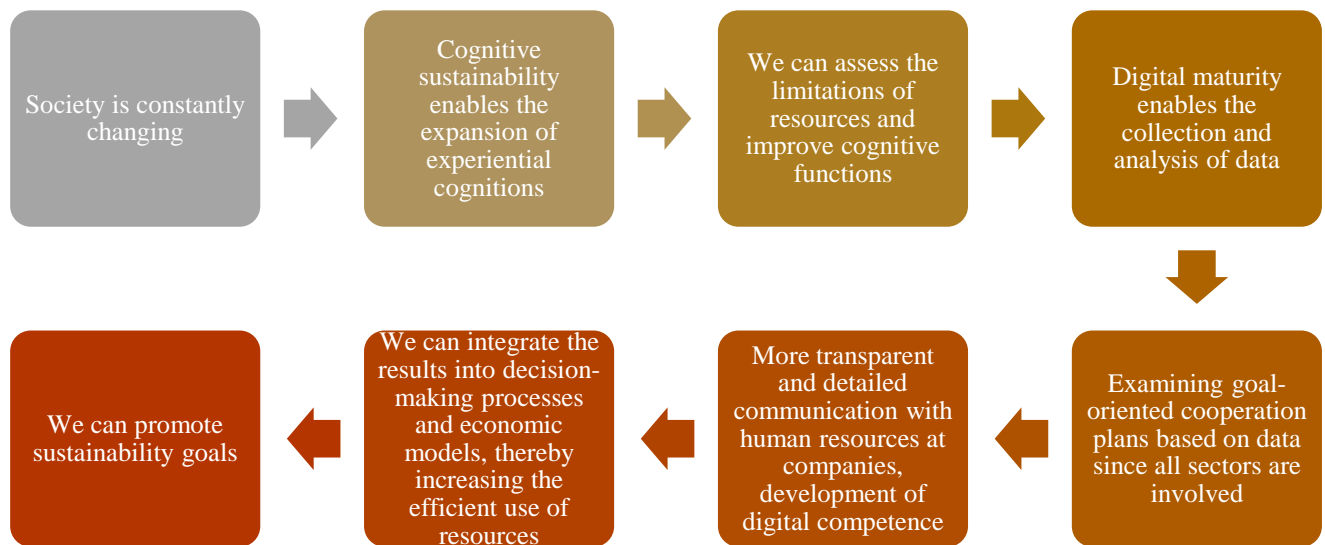
Figure 4. **The role of human resources in companies' digitalisation and sustainability efforts**
Source: based on own research

4. Conclusion

The research carried out in the study examined the role of human resources as a function of the companies' digital maturity, emphasising their influence on their competitiveness.

First, I examined the importance of the digital competence of human resources from a company point of view. Then, I scrutinised the connections between human resources and cognitive sustainability. Then, looking at the three factors together, I analysed the data and made a SWOT analysis, which summarises the knowledge of human resources related to cognitive sustainability and the importance of digital competencies.

Society is undergoing continuous change, which has accelerated even more today. Cognitive sustainability makes it possible to expand experiential knowledge, which is essential for today's people to understand the concept of sustainability better and to get closer to achieving sustainability goals. Thanks to recognition and its extension, we can assess the limitations of resources and improve cognitive functions. Developing competencies related to digital maturity enables an increasingly broad data collection and analysis. Since the most important factor of every company is the person, based on the available data, I examined the levels of Maslow's business pyramid, classified the factors of cognitive sustainability and digital maturity, and then depicted this in a process diagram that shows the digitalisation competencies, human resource characteristics, company profitability and includes corporate sustainability. With the development of digitalisation, more transparent and detailed communication can be achieved between management and company employees. This is essential for competitiveness. The research results can be incorporated into the company's decision-making processes and economic models, thus increasing the efficient use of resources and promoting the realisation of sustainability goals.

Overall, digital maturity enhances the competitiveness of companies by enabling fluctuation prediction, facilitating fluctuation prediction, more detailed, transparent communication, and motivating colleagues to use corporate applications. It is important to highlight that among the indicators of digital maturity, the digital competence of the workforce has the greatest impact on the profitability and competitiveness of enterprises.

Based on the results, it can be concluded that within the framework of cognitive sustainability, experiential knowledge of human resources can be expanded, and the understanding of the essence, fairness and consequences of sustainability can be enhanced, thereby making use of resources more efficiently and effectively. Therefore, the cognitive sustainability-related activities of the human resources employed by the companies have a significant impact on the companies' competitiveness and achieving their sustainability goals. However, just as companies' competitiveness depends significantly on human resource capabilities, the dependence on their spatial location cannot be neglected either. The number of trainings for

sustainability specialists and ICT specialists is significantly lower in rural areas, which is a significant source of danger in terms of corporate competitiveness. Developments based on these results can reduce regional differences.

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