Abstract: Digital maturity of organizations represents the level of organization’s readiness and ability to apply the latest digital technological achievements that enable them to function better and take better positions in a hypercompetitive business environment. In addition to technology, the level of digital maturity of the organization is influenced by a number of other organizational factors: business strategy, organizational structure, organizational culture, quality of personnel of the organization. In this paper, special attention is given to organizational culture as one of the organizational variables that significantly defines the level of digital maturity of the organization. The aim of the paper is to provide managers of all organizations, and especially managers in the tourism sector, the ways and mechanisms for creating such an organizational culture that will represent a strong support to the organization for achieving higher levels of digital maturity.

Keywords: organizational culture, digital maturity, digital transformation, organization, tourism sector.

1. INTRODUCTION

As a process that implies the development and application of modern digital technology, digital transformation represents the reality of today’s organizations and the way they function. It is defined as the use of modern technology for the purpose of radical improvement of the organization’s performance [1], or as „a new development in the use of digital artifacts, systems and symbols within and around organizations” [2].

Due to the dramatic, dominantly positive effects that successfully implemented digital transformation has in relation to the functioning of contemporary organizations [3], it has become one of their key priorities. According to Henner Gimpel and Masimilian Röglinger: it is not that digitization is indispensable to all today’s organizations; the fact is that all those organizations that ignore digitization will significantly lag behind all those organizations that manage to digitize their own way of doing business [4].

In one of the documents published by the World Economic Forum [5] is stated that „authentic” digital organizations are not the ones that apply new technologies for the technologies themselves. Actually, digital are those organizations that, based on the application of modern technology, enhance their own competitive advantage. Among other things, they do so through the improvement of their own culture, their strategy and the way they function. They are organizations that are constantly seeking to improve their own productivity by finding opportunities to digitize every aspect of their business, and permanently raising the quality of knowledge and skills of all the members of the organization [5].

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From the perspective of today’s organizations, the significance of digital transformation is best summarized by Evan I. Schwartz who points out that organizations incapable of adapting to the digital world will undoubtedly become victims of „digital Darwinism“. According to Schwartz: traditional and rigid organizations will disappear, while those more flexible and more sensitive to current technological trends will survive and be competitive [6].

The importance that digitization, or digital transformation, has for some organizations is also, to a larger extent, determined by the industry to which the particular organization belongs [7]. Namely, there are still industries (and the organizations that belong to them) that do not recognize, or recognize to a limited degree, the possibilities of intensive use of modern digital technology. On the other hand, it is possible to identify in practice those industries that for decades have been using actual digital achievements and enjoy all the benefits of digital technology.

Through the process of digital transformation, among other things, organizations within the tourism sector open up chances for continuing the prosperity trend that has been immanent to these organizations over the last few decades. It is a process which, among other things, implies monitoring as well as successful implementation of all those current technological trends that contribute to the increase in the level of digitization, performance and, ultimately, the competitiveness of business in the field of tourism. Some of these trends include the active and regular use of mobile devices, wireless networks, portable gadgets, smartphones, smart watches, smart armbands, smart glasses, social media, web sites, instant messaging services, and user services in the field of tourism, as well as by the very organizations themselves [8]. The purpose of using these technological achievements is reflected in better information, acceleration of higher level of service quality for clients, higher level of their comfort before, during and after the use of tourist organization services. All this contributes to a higher level of tourist satisfaction, which is one of the prerequisites for successful existing and future functioning of organizations in the tourism sector. On the other hand, the aforementioned technological trends enable tourism organizations to make their services available through online travel services 24 hours a day. The process of promoting tourism destinations, reserving and collecting arrangements, as well as communicating with clients, can take place today very quickly and easily. By instant messaging or e-mail, organizations in the field of tourism provide their clients with the necessary information faster with minimal costs and effort. With the purpose of retaining the clients of this organization, they have the opportunity to keep a record of them in a very simple way and foster good relations with their clients. Modern technological achievements have also contributed to the emergence of new forms of services in tourism (e.g. peer-to-peer trips, for which there are specialized sites such as airbnb.com, homeaway.co.uk etc.), as well as the emergence of new forms of tourist behavior (e.g. „braggies” trend) [8].

2. DIGITAL MATURITY OF THE ORGANIZATION IN THE TOURISM SECTOR

The category that is closely related to the process of digital transformation of the organization, or to the level of success in the implementation of that process, is the so-called digital maturity of the organization. It represents the level of readiness and ability of organizations to apply the latest digital technological achievements that enable them to function better and occupy higher positions in a hypercompetitive business environment. According to some authors: „Maturity goes far beyond simply implementing new technology by aligning the company’s strategy, workforce, culture, technology, and structure to meet the digital expectations of customers,
employees, and partners. Digital maturity is, therefore, a continuous and ongoing process of adaptation to a changing digital landscape" [9].

In 2017 Gerald C. Kane and his colleagues published the results of a global digital business survey conducted by MIT Sloan Management Review and Deloitte in 2016. The research included organizations from 29 different industries and 117 countries. The results obtained by this research enabled the organization to be divided into three groups from the aspect of their digital maturity level [9]:

- organizations at the early stages of digital maturity,
- digitally developing organizations,
- organizations that are digitally maturing.

The aforementioned research, as well as many previous researches carried out by Gerald C. Kane and his colleagues have shown that digitally more mature organizations are more focused on integration of digital technologies, such as social, mobile, analytics and cloud. On the other hand, digitally less mature organizations are only focused on solving discrete business problems with individual digital technologies [10]. Those authors also claim that „digitally maturing companies are far more likely than are other organizations to use technology to conduct business in fundamentally different ways“ (Figure 1) [9].

![Image](image.png)

Figure 1: Percentage of organizations at different levels of digital maturity using digital technology to perform tasks in a new and different way

Source: compare with [9]

The process of digital transformation is ongoing in many economic sectors of a large number of countries [3]. The Global Study of MIT Sloan Management Review and Deloitte’s 2015 [10] showed that, as a result of digital transformation at a global level, different sectors exhibited different levels of digital maturity. An overview of the digital maturity levels of some of these sectors, globally, among which a noted place is occupied by transport and tourism sector, is given in Table 1.

As presented in Table 1, the tourism sector occupies the fifth position in the global sector ranking, compiled by the sectors’ digital maturity level. The data given in Table 1 also indicate that the tourism sector (analyzed together with the transport sector) ranks among the top five sectors, when observing usage of digital technologies with the aim of establishing better customer relationship, as well as better relations with employees within this sector. What needs significant improvements within the tourism sector, when it comes to the digital technologies usage, concerns its use for upgrading the relationships with partner organizations [11].
### Table 1: Digital maturity of individual sectors on a global level

Source: compare with [10]

Among the digital qualities, presented in Table 1 where the tourism sector (together with the transport sector) is also among the five most digitally matured sectors, the following are highlighted: „Strategy to transform“ and „Managers encourages use“. From the aspect of other analyzed digital qualities (clear strategy, skills provided, leaders have skills), the tourism sector is ranked at lower positions, below the fifth place. It turns out that these three digital qualities are areas that can be significantly transformed in the tourism sector in order to improve the overall digitization level of this sector.
3. KEY FACTORS OF DIGITAL MATURITY OF THE ORGANIZATION

The differences identified among three aforementioned types of organizations categorized by the level of their digital maturity („early“, „developing“ and „maturing“) point to issues that are crucial for the success of the digital transformation process, as well as for reaching higher levels of digital maturity of the organization. MIT Sloan Management Review and Deloitte’s 2015 global study has shown that organizations at a higher level of digital maturity are distinguished by the following characteristics [10]:

- clear and coherent digital strategy,
- flexible and innovative organizational culture,
- willingness and ability to develop its own talents,
- digital fluency of top managers.

As Gerald C. Kane and his colleagues point out: “In an increasingly digital world, digital transformation is not just about implementing more and better technologies. It involves digital congruence - aligning your company’s culture, people, structure, and tasks” [12].

An interesting approach to the factors of digital maturity of the organization is also contained in the so-called Digital Maturity Model presented by Deloitte Consulting LLP, a subsidiary of Deloitte LLP (Figure 2). According to this model, the key categories that determine the level of digital maturity of the organization, and the success of the organization’s digital transformation process, are [13]:

- organization and culture (defining and developing an organizational culture with governance and talent processes to support progress along the digital maturity curve, and the flexibility to achieve growth and innovation objectives);
- customer (providing an experience where customers view the organization as their digital partner using their preferred channels of interaction to control their connected future on and offline);
- strategy (focuses on how the business transforms or operates to increase its competitive advantage through digital initiatives; it is embedded within the overall business strategy);
- technology (underpins the success of digital strategy by helping to create, process, store, secure and exchange data to meet the needs of customers at low cost and low overheads);
- operations (executing and evolving processes and tasks by utilizing digital technologies to drive strategic management and enhance business efficiency and effectiveness).

Figure 2: Digital Maturity Model
Source: compare with [13]
4. ORGANIZATIONAL CULTURE AND DIGITAL MATURITY OF THE ORGANIZATION

In the foregoing, as well as in many other studies analyzing determinants that affect the level of digital maturity of an organization [14; 15; 16], organizational culture stands out as an important factor. It is defined as a set of key values, beliefs, understandings and norms that are accepted by members of the organization [17]. Some authors perceive organizational culture as established way of thinking and working in an institution, which includes its policies, rules, and procedures; its customs and practice; its common values and belief systems; its tradition and the assumptions and nature of the language used for communication [18].

As an important organizational category, organizational culture has a significant influence on various aspects of the functioning of the organization. Among other things, it affects the level of digital maturity of a particular organization. In other words, organizational culture is considered as one of those variables that determine the success of the digital transformation process and, ultimately, define the level of digital maturity an organization can reach. As stated by Jim Hemerling and his colleagues „Being a digital organization means not only having digital products, services, and customer interactions... a digital transformation requires installing a culture that supports the change“ [14].

According to Hemerling and his colleagues, the key reasons that point to the importance of installing a strong digital organizational culture during the process of digital transformation, are the following [14]:

- by ignoring culture, an organization risks transformation failure,
- a digital culture empowers people to deliver results faster,
- a digital culture attracts talent.

Examining the success of the organization’s digital transformation process, in practice, on a sample of nearly 40 organizations, Hemerling and his colleagues noted that „nearly 80% of the companies that focused on culture sustained strong or breakthrough performance“ [14]. At the same time they identified that „not one of the companies that neglected to focus on culture achieved such performance“ [14]. The same research has shown that digital organizations, generally speaking, function faster in comparison with the so-called traditional organizations. Mentioned authors conclude that differences in the speed of functioning of these two types of organizations is not only a consequence of the fact that digital organizations use digital technology which, among other things, speeds up their functioning. The faster functioning of digital organizations is also seen as the result of a digital organizational culture whose values encourage employees to perform tasks more quickly and more efficiently, to make quicker decisions, to respond more readily to consumer demands, etc.

Hemerling and his colleagues [14] also state that digital organizational culture is one of the basic components that strengthen the organization’s capacity to attract talents on a larger scale, in comparison with the so-called traditional organizations. Talents are considered as highly skilled, highly competent staff whose knowledge, skills and other qualities are the basis for successful achievement of tasks and goals within the organization [19]. Digital organizations primarily need talents with digital knowledge and skills. When they opt for a specific organization whose members they tend to become, so-called digital talents, among other things, assess the strength of the digital culture of a specific organization.
One of the aforementioned analyzes, conducted by Gerald C. Kane and his colleagues [12] has made it possible to identify three different types of organizational cultures that are linked to different levels of digital maturity of an organization (Figure 3). Starting from the following criteria: appetite for risk, leadership structure, work style, level of agility, decision-making approaches, and passion for work, these researchers identify three distinct cultural types. The first cultural type is present in organizations that are in the early stage of digital maturity. This cultural type is characterized by: a low appetite for risk, a hierarchical leadership structure, work performed in silos, and decisions based more on instinct than on data. On the contrary, organizations whose level of digital maturity is very high have an organizational culture that, among other things, is characterized by: permanent experimentation and high speed, acceptance of risks, distributed leadership structure, collaboration, decision based on data. Finally, organizations whose level of digital maturity is somewhere between the two aforementioned levels are distinguished by cultures in which the values of relevant criteria are also somewhere in the middle.

In addition to the above, there are many other features that are attributed to the organizational culture. Hemerling and his colleagues analyze the so-called healthy organizational culture through the following qualities [14]:

- It promotes an external, rather than an internal, orientation. A digital culture encourages employees to look outward and engage with customers and partners to create new solutions. A prime example of external orientation is the focus on the customer journey; employees shape product development and improve the customer experience by putting themselves in the customer’s shoes.

- It prizes delegation over control. A digital culture diffuses decision making deep into the organization. Instead of receiving explicit instructions on how to perform their work, employees follow guiding principles so that their judgment can be trusted.

- It encourages boldness over caution. In a digital culture, people are encouraged to take risks, fail fast, and learn, and they are discouraged from preserving the status quo out of habit or caution.

- It emphasizes more action and less planning. In the fast-changing digital world, planning and decision making must shift from having a long-term focus to having a short-term one. A digital culture supports the need for speed and promotes continuous iteration rather than perfecting a product or idea before launching it.
It values collaboration more than individual effort. Success in a digital culture comes through collective work and information sharing across divisions, units, and functions. The iterative and fast pace of digital work requires a far greater level of transparency and interaction than the one found in the traditional organization.

Interesting approach to the critical features of digital culture is one that highlights the seven key features of that culture (Figure 4). They are [20]:

- innovation: the prevalence of behaviors that support risk taking, disruptive thinking, and the exploration of new ideas;
- data-driven decision-making: the use of data and analytics to make better business decisions;
- collaboration: the creation of cross-functional, inter-departmental teams to optimize the enterprise’s skills;
- openness: the extent of partnerships with external networks such as third-party vendors, startups or customers;
- digital first mindset: a mindset where digital solutions are the default way forward;
- agility and flexibility: the speed and dynamism of decision-making and the ability of the organization to adapt to changing demands and technologies;
- customer centricity: the use of digital solutions to expand the customer base, transform the customer experience and co-create new products.

![Figure 4: Seven key attributes of digital culture](Source: compare with [20])

Organizational culture cannot be considered as a variable that unilaterally determines the level of digital maturity of an organization. The results of some research [9] indicate that the level of digital maturity of an organization also affects the nature and character of a specific organizational culture. This is particularly evident in organizations that are at the highest level of digital maturity. Those organizations manifest a strong need and an effort to create a strong digital organizational culture. Such tendency has not been identified among the organizations that are in the initial stage of digitization [9]. It turns out that there is an appropriate interaction between the organizational culture and the level of digital maturity of the organization (Figure 5).
Of course, one has to bear in mind that organizational culture is a complex phenomenon, which is influenced by a great number of other factors (Figure 6). According to one of the studies, the critical factors of the so-called Agile digital organizational culture are the following [21]:

- people (a culture of capability and positivity supports digital transformation),
- leadership (the ability to manage effectively in a digitally transforming world will improve firm performance),
- technology (technology democratizes data, so workers can manage risk and exploit opportunities),
- tasks (task mix needs to be optimized for exploiting digital transformation),
- structure (networks and nodes structures support digital transformation),
- strategy (different competitive strategies require different responses to digital transformation),
- politics (internal and external environmental constraints and opportunities effect digital transformation),
- ethics (digital transformation requires clear policies regarding appropriate data use).

5. **IMPLICATIONS FOR MANAGERS**

With the purpose of creating an agile digital organizational culture that would enable a more successful digital transformation of the organization and which would contribute to raising the level of digital maturity of the organization, it is necessary, inter alia, to influence the aforementioned factors of digital organizational culture.

According to Valentine E. and Stewart G. (2015), an effective way to drive digital transformation is the management-led, top-down approach [see details in: 16]. A fairly comprehensive ap-
Approach to the process of creating a digital organizational culture is one according to which this process is viewed through a coordinated action taken by the executive team, human resource team and digital leaders and experts of the organization. Their coordinated action should [15]:

- create a mission-driven transformation, and ensure that the most senior individuals embody the associated values and behaviours;
- streamline governance structures and break down hierarchies to avoid decisions being stalled by multiple boards/councils;
- enable idea generation and a fail-fast mindset and ensure ideas are evaluated and processed so employees’ perspectives are captured and heard by those who have the power to take action on anything that could provide real value;
- encourage a mix of generations e.g., through “reverse mentoring” programs whereby younger employees advise senior leaders on digital matters;
- be honest about what the company does best, and partner with other players in the ecosystem to acquire readily available solutions and expertise;
- recognize and reward open-mindedness and willingness to change; those who exhibit these traits are the champions for transformation;
- encourage hiring people with diversity of thought and background and foster a mindset of inclusion, acceptance, and understanding of different perspectives;
- enable rotation of talents both into and out of the digital team to empower a broader group of employees;
- allow digital leaders to take action when they diagnose a need, for example, training or development to get talent to the next level;
- give digital hires freedom, for example, to choose their own hardware and operating systems;
- recognize that the pace of hiring in technology is fast, and speed up the recruitment timeline so as to not miss out on high quality digital talent;
- create different physical spaces, such as shared co-working spaces and “digital centers” that can be utilized by different groups in the organization;
- engage factory and service employees by creating a “hero” culture, encouraging them to be pioneers who take pride in being at the forefront of the transformation;
- define clearly what digital means to the company to ensure everyone works towards a common goal;
- be prepared to teach and lead the organization through its transformation;
- work closely with customers on “co-creation” to ensure digital functionalities and products are not created in a vacuum;
- visit plants and offices to understand which internal processes can be optimized using technology/analytics;
- leverage new products and functionalities, KPIs and revenues to tell a positive story to prove the point, and reiterate that digital is a means to an end;
- encourage agile ways of working to create a modern, project-oriented culture that focuses on getting the job done as a team, rather than about levels and reporting lines;
- be pioneers for open and transparent communication across the organization to help drive employee engagement.

On the other hand, Hemerling and his colleagues [14] point to the following activities relevant to the process of successfully creating a digital organizational culture:

- articulate the change required (identify the characteristics of target digital culture on the basis of the company’s strategy, goals, and purpose; translate each cultural characteristic into specific behavior examples; assessment of the current culture; identify
the gap between current and target behaviours; integrate the required changes into the communications related to the cultural change);

- activate leadership characteristics and engage employees;
- align the organizational context (the underlying systems, processes and practices) to embed the new culture.

6. CONCLUSION

In contemporary business environment where digitally maturing organizations perform faster and better, the efforts of managers, generally, and especially of those managers in the tourism sector, must be focused on those relevant variables that encourage digitization. Bearing in mind that organizational culture has enormous influence on digitalization and digital maturity of the organization, creating a flexible, innovative, positive and healthy digital organizational culture should be one of the key priorities of today’s managers. The mutual interaction of organizational culture and many other organizational variables that also influence the digitization (strategy, structure, technology, people, management system), suggests that, with the purpose of raising the level of digital maturity of the organization, success is guaranteed only by so-called integrative approach. It implies the simultaneous influence of managers on a specter of categories relevant for digitization.

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