THE DENISON ORGANIZATIONAL CULTURE SURVEY (DOCS): EMPIRICAL REVIEW OF A DIGITAL ORGANIZATIONAL CULTURES' EFFECTIVENESS

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Abstract: Digitalization presents a driving force for many organizations regarding the dynamic changes and requirement of a new way of thinking and achieving higher performance, improving quality, safety, and profitability. Digital transformation has become a prevalent project in many industries, nevertheless often failure due to inhibit organizational cultures preventing change. Empirical review of the digital organizational cultures feffectiveness identifies cultural traits that are crucial for the digital transformation process. Understanding the digital organizational culture is important for leaders to react to changing environments, especially amplified by the ongoing coronavirus pandemic. The purpose of the study is to assess the culture of organizations and track the progress of digitalization using the Denison organizational culture model. The survey was conducted in October 2022. The sample comprised over 400 respondents. Statistical analysis is performed with MAXQDA software, where the statistical relationship between the variables of interest was explored. Convergent validity was evaluated using Person's correlation analysis. A psychometric evaluation is acceptable and correlation confirms the statement that each trait strongly correlates with two other traits, but less with the incompatible trait. The correlation between aparticular traits and their subdimensions indicates the convergent and divergent validity of the items. The findings have revealed a significant connection between Adaptability and Customer Experience and Mission and Digital Strategy. These traits highly affect the digital evolution within an organization. Findings reveal that the organizational culture is crucial to a successful digital transformation and needs to be given sufficient attention. In conclusion, this study indicates that organizational culture appears to be a force that boosts digital progress.

Keywords: Denison organizational culture survey; organizational culture; digitalization; digital transformation

1 Introduction

There is no doubt that organizational culture plays a key role in creating a balanced and sustainable work environment that ensures increased employee satisfaction and lower employee turnover. This aspect is becoming even more important in addition to offering various employee benefits in order to attract employees in the labor market, especially during the time of low unemployment rate. Therefore, organizational culture is a tool not only to strengthen and expand teams, but also to ensure continuity in human resources discipline. Nowadays, some authors go even deeper and connect organizational culture with the concept of happiness at work as its basic building stone (Foncubierta-Rodríguez, 2021; Badibanga and Ohlson, 2021; Mamen, 2018). The concept is based on a simple principle of satisfaction of employees, and based on their satisfaction, they perform better and in the long run.

From a business management perspective in the first decades of the 21st century, the digitalization of processes is a key trend related to Industry 4.0. A company that is on a higher level of digitalization and has already learned how to deal with the ICT ecosystem and strategy has an enormous advantage. Such a company holds a competitive advantage; its deliverables are faster, better quality, and created with lower efforts and costs. That is the reason why companies in several industries and specializations build ICT teams and search for experienced experts who are able to set and maintain the ICT strategy. This brings, next to inefficiency in processes, also the risk of losing know-how and knowledge when the employee leaves.

It is important to mention that the digitalization process is not only about the deployment and implementation of any application or information system. It also covers the existing environment where the part of the ICT ecosystem is implemented. It means preparation of infrastructure in case the company decides not to go IaaS¹ strategy but primarily to prepare the users. It is necessary to realize that the level of user digital literacy is different depending on the industry in which the company operates and the age group that prevails among employees and future end users. That is why key and end user

training plays a crucial role in the schedule of implementation projects and successful deployment of information systems. The behavior of the aware companies amplifies the scissor effect between digitalized organizations and those that still rely on pencil and paper and are reconciled to the fact that most of the knowledge and data are stored in the memories of the employees.

When thinking about how the situation has changed due to the global pandemic and its impact in the form of a perceptible increase in remote collaboration and work from home, it is indisputable that the importance of digitalization is increasing. However, it is necessary to mention that the pandemic significantly changed the relationship between digitalization and organizational culture. In the past, digitalization was a part of it. It stayed beside other aspects, as a piece of fragments that put together the organizational culture of every particular company. Nowadays, digitalization needs to be perceived as a crucial factor for achieving realization of organizational culture. In other words, it is not easy to enforce and spread the principles of organizational culture when teams work much more remotely. It is obvious that organizations that started with their digital transformation are in a significantly advantageous situation as they already have their infrastructure and ICT environment ready for spreading and supporting the organizational culture remotely.

2 Methodology

The research deals with the impact of organizational culture on digital transformation within organizations. Therefore, the aim of the research lies in assessing the organizational culture of particular companies and, at the same time, tracing the level of the corporate digitalization. Thus, the research question is as follows: What is the connection between organizational culture and digital transformation? To achieve this result, the Denison Organizational Culture Survey has been chosen as the most widely used questionnaire in a wide range of research worldwide.

The Denison Organizational Culture Survey (DOCS) is based on a theory linking four major cultural traits, such as involvement, consistency, adaptability, and mission (Denison and Mishra, 1995). The involvement is represented by the personal engagement of individuals reflecting the internal organizational dynamics and flexibility. The consistency is connected with core shared values, an ability to reach agreements within the organization, and coordination and integration of The adaptability presents the degree organization. understanding of the needs of the organization of the customers, specifically the response to changing demands. The mission refers to organizational purpose and direction (Denison et al., 2013). These four organizational aspects were identified by several authors in the past that consider them as characteristics of high performance of every community (e.g., Spreitzer, 1995). The model consists of two-dimensional perspective – external vs. internal focus and flexibility vs. stability (Denison and Neale, 1999). The Denison model includes the digital assessment part that focuses on the progress of the organization's digitalization and includes six components: digital strategy, people, customer experience, production and delivery, and infrastructure (Denison

The reason why exactly this survey tool has been chosen is that DOCS is the result of methodological research that identified several problematic trends and remaining gaps in nine chosen published surveys. The objective of these surveys is to diagnose organizational culture and assess digitalization. The DOCS reacts on pointed troubles with reliability and validity and is designed to be the most well-researched effectiveness instrument to date (Denison et al., 2012). The design of the survey is in direct agreement with the aim of the investigation as it consists of questions related to the topics of the organizational culture

¹ Infrastructure as a service.

and the level of digitalization in the researched environment. The questionnaire consists of 66 statements divided into 5 dimensions. These dimensions include sub-dimensions:

- 1. involvement empowerment, team orientation, capability;
- consistency core values, agreement, coordination and integration;
- adaptability creating change, customer focus, organizational learning;
- mission strategic direction and intent, goals and objectives, vision;
- digital assessment digital strategy, people, customer experience, innovative products, production and delivery, infrastructure:

The survey consists of closed-ended questions using a Likert scale. Respondents demonstrated how they agree or disagree with a particular statement on the scale from 1 (strongly disagree) to 5 (strongly agree) (Jamieson, 2004).

Within the descriptive statistics, statistical indicators such as mean and standard deviation were used. Cronbach's alpha examines the internal consistency and reliability of test items. In addition, demographic analysis of the respondents has been used.

Statistical analysis is performed with MAXQDA software. It allows us to explore the statistical relationship between the variables of interest. The next step lies in the assessment of convergent validity by Person correlation analysis. The basic property of the Pearson correlation coefficient is that it only takes values from the interval, with the value being positive when higher values of the random variable are associated with higher values of the random variable and conversely negative when lower values are associated with higher values. The survey was conducted in October 2022 and includes a sample of 494 Czech companies. The research involves representatives of employees in companies as participants and consumers of organizational culture of a business community at some particular level of digitalization.

3 Definition and Relationship between Organizational Culture and Digitalization

Nowadays, organizational culture is an integral part of every corporate environment. It is one of the first mentioned aspects when identifying or descripting a company. The organizational culture is an important factor for employees finding a new job, customers deciding about new contracts and suppliers, and owners identifying strategy, vision, and values of their companies. It simply enters into the whole corporate ambience.

According to Denison and Neale (1999), organizational culture refers to the underlying values, beliefs, and principles that serve as a foundation for a management system of organizations. They also add the remark that aspects of organizational culture are divided into visible and invisible. The visible ones are easy to observe. Those that are invisible are represented by values and core beliefs. The definition of organizational culture has much older roots. Katz and Kahn (1978) described organizational culture as a set of roles, norms, and values. Next to this, there are new definitions of organizational culture that work with new terms, but indeed their description is similar. Schein (1996) describes organization culture as a phenomenon embedded in employees related to life and work in the organization consisting of relations among employees and the set of values. The Kahn definition is followed by Sikavica (1999) who sees it as a system of values, understandings, beliefs, and assumptions. This definition slightly extends the original formulation. A little bit more modern concept is offered by Žugaj et al. (2004) who speaks about organizational culture as a specific mode of behavior and the lifestyle of groups within organizations that create the organization as a whole. Whether we perceive organizational culture from a narrower or broader perspective, there is no doubt that it plays a key role in the identification of every organization.

Digitalization is a moving force that, as a result, means a change in the quality of the organizational systems functions performance (Gayer et al., 2022). This anticipates the relationship between the recipients and the digitalization itself. The fact that digitalization results in changing processes and responsibilities can sometimes be an obstacle that slows down innovation because people are naturally afraid of changes. On the other hand, the change of outcome quality, higher performance, or savings due to digitalization are catalysts of the digitalization process. Every process change can be successful only when the balance between supporters and consumers of the change is maintained. As mentioned by Kryshtal et al. (2022), the impulse to get the organization to the higher level of digitalization mostly comes from the employees dealing with the strategy of the company and are decision makers requiring enough data to make correct decisions. The same category of managers is usually responsible for the economic result of the company, which motivates them to also be interested in digitalization, which is often described as a tool to realize savings. There is no doubt that the digitalization process is becoming more and more popular. According to Teece (2010), it is mainly caused by high levels of competition, increased customer focus, economic challenges, market connectivity, advancement in technologies, and crises. As the date of publication is before the COVID-19 crisis, the quote seems to be quite visionary. Many authors (Skulmowski and Rey, 2020; Porpiglia et al., 2020; Dannenberg et al., 2020; Chesbrough, 2020) confirm increased interest in digitalization during and after the pandemic, as expected. This fact even drives more the naturally increased demand for ICT tools that can be demonstrated on, for example, the growing number of companies using ERP systems (Špatenka and Koch, 2021). It is evident that digitalization and organizational culture are current factors present in every corporate environment in some form an extent.

Provided that digitalization and organizational culture are two phenomena that exist side by side, an important part of the research in general is to identify the relationship and possible causality between each other. According to Binh et al. (2022), organizational culture is an essential factor of enhancing the quality of digitalization in Vietnamese companies that participated in the research, especially in the way of improving quality of accounting information systems outcomes that help to make accurate managerial decisions. The opposite direction of the relationship is described by Coman et al. (2022) on the case of accounting agenda as well. It is said there are three main factors influencing decisions about digitalization: organizational culture, infrastructure, and optimal configuration of the functional structure. Carlsson et al. (2022) confirm that the most important relationship between these two aspects lies in the importance of a sufficiently adapted organizational culture that supports the process of digitalization. They also connect the culture with the focus on learning and the ability of employees to know how to acquire competence. The importance of the learning process, especially achieving and adopting digital skills as a part of organizational culture, is also highlighted by Barquero et al. (2021), whose survey at universities showed that 65% of respondents think that digital skills are essential for any other development, and only 10% consider it irrelevant. Very interesting outcomes are mentioned in the work of Ahn and Ahn (2020). They, as part of their empirical analysis, identified organizational culture, regulatory environment, relative advantage, trialability, and vendor lock-in as absolutely crucial factors of successful adoption of cloud-based ERP as one of the most common tools in digitalization process. In contrast to the study by Barquero et al. (2021), Ahn and Ahn (2020) claim that ICT skills have no significant influence on the digitalization process. The difference may lie in different understanding of definitions of ICT and digital skills.

Whether the studies differ in their view of the matter more or less, there is no doubt that the existing analysis creates many other questions that need to be uncovered. It might also be interesting to find out how the relationship between digitalization and organizational culture is getting change while

digitalization is progressing, changing its dimension, and thus enabling the organizations to become more automated and more efficient than ever before.

4 Results

The Denison Organizational Culture Questionnaire was distributed using a Google form and the data was processed in MAXQDA Analytics Pro 2022 software. Although a total of 654 respondents were addressed, the response rate is 75.5%, which indicates an excellent rate of online survey. For the purpose of the analysis, within this study demographic analysis, descriptive statistics, and regression analysis is used. An internal reliability test is performed to measure the correlation between items.

4.1 Demographic analysis

Based on the results, 67% of the survey respondents were male and 32.4% were female. The age category that was the most represented was the category of respondents with less than 20 years of age. Most of the respondents (84%) were employed in the organization for less than 5 years, 5.5% of the respondents were employed in the organization for less than 10 years. Almost on par with the period of employment in the company were categories 11-15 years, 16-20 years, and more than 21 years (the representation of respondents is approximately 1%). About 12.3% of the respondents work in the IT department, and the same number of respondents work in the sales department. A bit more than 10% of the respondents indicated to exert a function in manufacturing. A total of 8.7% of the respondents work in administration, 7.1% in logistics, 3.8% in line management, and 3.4% in marketing.

Tab. 1 Demographic analysis of the respondents in the online survey

Age category	Frequency	Percent		
less than 20 years	272	55.1		
21-30 years	192	38.9		
31-40 years	5	1		
41-50 years	14	2.8		
51-60 years	7	1.4		
Total	490	100		

4.2 Descriptive statistics and Cronbach's Alpha

In Table 2 is outlined the descriptive statistics of survey results of Denison's organizational culture model, especially Mean, Standard Deviation (Std. dev.) and Cronbach α for twelve subdimensions of organizational culture. The value of Mean is examined for four major cultural traits of organizational culture, such as involvement, consistency, adaptability, and mission and for measures of digital assessments. As mentioned within the chapter Methodology, both constructs used the five-point scale to express the attitude to particular statements. The average value mean of four traits of organizational culture is 3.69 and is above the middle value with reasonable dispersions of central tendency. The Digital Assessment result of Mean indicates 3.36, thus indicating a mid-point value. The value of standard deviation is ranging from 1.01 to 1.15 which is also a reasonable dispersion of central tendency. As revealed in Table 2, the highest values of the mean are identified in subdimensions: Empowerment (3.9), Organizational Learning (3.94), Strategic Direction and Intent (3.99), and Agreement (4). It indicates that the employees are involved in organizational matters and are fully informed. The high value of means of Organizational Learning indicates a culture that places emphasis on learning in the workplace and on innovation. The respondents mentioned that they understand organizational strategies and believe in their effectiveness. Sub-dimension Agreement focuses on the critical issues, and results prove that respondents are able to reconcile differences in a constructive way. Digital Assessment has the lowest mean (3.36) comparison with four organizational cultural traits. The highest value of Mean within the mentioned dimension is listed at the sub-dimension of Customer Experience. This infers that respondents point out the Customer Experience that drives the innovative product design and the production and delivery process. The low values of Mean are indicated at sub-dimensions: Creating change (3.23), Customer focus (3.4), Vision (3.49), People (3.12), Production and Delivery (3.27) and Digital Strategy (3.32). Digital Assessment's measurements show that organizations are not fully digitally mature and this area represents a major challenge for many of them

A psychometric evaluation includes Cronbach's alpha index, item-total correlation, and correlation between traits and sub-dimensions.

Exploring the reliability of internal consistency, Cronbach's alpha coefficient was conducted. The overall Cronbach's alpha is 0.83. This can be considered as a very high internal consistency (Edwards et al., 1997; Field, 2009; Pallant, 2010). Furthermore, if the Cronbach's Alpha value is higher than .70, it is considered reliable in social sciences. With respect to the various subdimensions of organizational culture, the formula was tested for each of the dimensions. The average value of Cronbach's alpha of 18 dimensions is 0.77 compared to the aforementioned value of 0.83. Cronbach's α index of each cultural dimension red uces the alpha value, compared to the calculation of the overall construct. Each dimension has high covariances (α is close to 1). Therefore, the higher the α coefficient, the more the items have shared covariance and measure the same underlying concept. The resulting value of Cronbach's ranges from 0.81 to 0.83, making the items reliable.

Tab. 2 Descriptive statistics and internal reliability of the initial construct

Item	N	Mean	Std. dev.	Cronbach α
Involvement		3.85		
Empowerment	489	3.9	0.9	0.82
Team Orientation	487	3.87	1.03	0.82
Capability Devel.	487	3.77	1	0.83
Consistency		3.73		
Core Values	487	3.68	1.18	0.82
Agreement	489	4	0.96	0.82
Coordination and Integration	488	3.52	1	0.83
Adaptability		3.52		
Creating change	488	3.23	1.26	0.83
Customer focus	488	3.4	1.09	0.83
Organizational Learning	488	3.94	0.98	0.82
Mission		3.67		
Strategic Direction and Intent	489	3.99	1.08	0.81
Goals and Objectives	488	3.54	1	0.81
Vision	488	3.49	1.06	0.82
Digital Assessment		3.36		
Digital Strategy	486	3.32	1.09	0.81
People	486	3.12	1.15	0.81
Customer Experience	489	3.62	1.09	0.81
Innovative Products	485	3.45	1.1	0.82
Production and Delivery	484	3.27	1.01	0.81
Infrastructure	487	3.4	1.03	0.81

The correlation between cultural traits and sub-dimensions is reported in Figure 1 by arrow-linking. The Denison model focuses on four traits which are related in terms of two underlying dimensions, on the horizontal axis flexibility versus stability orientation, and on the vertical axis external versus internal orientation (Denison and Neale, 1996). Each trait is compatible with the other two traits regardless of two underlying dimensions. For example, Involvement is connected to

Consistency through internal focus and Adaptability is connected to Involvement through flexible focus but the Mission trait is not linked to Involvement. Regardless of this relationship, each trait should strongly correlate with two other traits but less with the incompatible trait (Skarphedinsson and Gudlaugsson, 2013). This statement is confirmed within the research of correlation analysis. Thus, this correlation was statistically examined by comparing each trait. The results are outlined in Figure 1.

The correlations between the four organizational cultural traits including Involvement, Consistency, Adaptability, and Mission are positive and middle high, ranging from 0.57 to 0.69 at the level of p value is less than .05 (Hornungová, 2014). The correlation of related traits is stronger, specifically Adaptability and Mission (0.65) and Adaptability and Involvement (0.69), however, the correlation between Adaptability and unrelated trait Consistency is weaker (0.57). This indicates the convergence and divergent validity of the respective trait. The results show a significant correlation between each other. This proves that the traits were clearly differentiated from each other.

Furthermore, the correlation between particular traits and its subdimensions was examined too to indicate the convergent and divergent validity of traits and its sub-dimensions. The correlation coefficients are significant and positive between each trait and sub-dimensions. The most significant is the relationship between trait Mission and its sub-dimension Strategic Development (0.89) than the correlation coefficients between sub-dimensions of other traits. Moreover, the relationship within the trait Mission and its sub-dimension Goals and Objectives is also significant (0.87) whereas the lowest correlation is between dimension Adaptability and its sub-dimension Customer Focus (0.75). This proves an acceptable convergent and divergent validity. The results revealed in Figure 1, confirm good internal consistency for all cultural traits Involvement, Consistency, Adaptability, and Mission which are strongly related.

Figure 1 Path diagram of correlation coefficients of four dimensions and its sub-dimensions

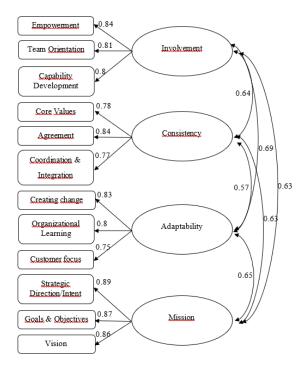


Table 3 presents the correlation coefficients between organizational culture sub-dimensions, and digital measurements are also significant as outlined. Results reveal that sub-dimensions are significantly related to the digital measures. The strong positive relationship is indicated between construct Digital strategy and Organizational Learning (0.453) and also the

relationship between Digital Strategy and Core Values (0.394). Other results correlation between items represent a link between items with lower correlation.

In summary, four cultural traits positively related to digital measurements were examined. Totally 5 of 12 sub-dimensions, specifically Core Values, Agreement, Creating Change, Organizational Learning, Goals and Objectives present a significant relationship with digital measurements. There exists a link between cultural traits and digital measures.

Tab. 3 Correlation between sub-dimensions and Digital measurements

	Dig. Strategy	People	Customer Experience	Innovative Products	Production and Delivery	Infrastructure
Empowerment	0.32	0.26	0.3	0.3	0.25	0.31
Team Orientation	0.31	0.28	0.33	0.33	0.27	0.29
Capability Develop.	0.4	0.35	0.32	0.34	0.3	0.36
Core values	0.39	0.23	0.29	0.3	0.31	0.3
Agreement	0.34	0.26	0.34	0.26	0.34	0.3
Coordination and Integration	0.26	0.16	0.20	0.26	0.212	0.17
Creating change	0.44	0.41	0.42	0.34	0.32	0.39
Customer focus	0.25	0.21	0.28	0.31	0.17	0.23
Org. learning	0.45	0.48	0.41	0.36	0.37	0.45
Strategic Direction and Intent	0.56	0.45	0.47	0.43	0.46	0.5
Goals and Objectives	0.5	0.38	0.37	0.42	0.4	0.43
Vision	0.51	0.4	0.43	0.41	0.39	0.44

To ascertain the extent to which organizational culture influences digital progress, linear regression was used to better account for the quality of the data. Investigating which variable, in this case dimensions of organizational culture, affects to a certain degree dependent variable, in this case digital assessment, we use the least squares method, which is suitable with a relatively large number of variables correlating with each other. Table 4 lists the outcome of regression analysis. The effect of traits of organizational culture on digital measurements is expressed by the beta coefficient. The significant values of the beta coefficient of each dimension and particular digital measurement are highlighted in Table 4. Beta coefficients range from .44 to .81. The results are an acceptable goodness of fit due to the p-value being lower than .05. The highest relation is between all traits and especially digital strategy. These contribute the highest in digital progress. Moreover, the most important relationship between organizational culture traits and the digital measurements is indicated in Adaptability and Digital Strategy (0.73), which indicates that the Adaptability trait positively predicts Digital Strategy. Similarly, Mission and Digital Strategy (0.81), the direct effect is also confirmed. This resulted in β of .81, indicating that there is an 81% chance of detecting an effect if it one genuinely existed. The weakest relation between observed items is between trait Consistency and People (0.44); a unit increase in consistency leads to the corresponding increase of 0.44 in digital measurement People using the standardized coefficient.

Furthermore, the following table provides evidence of the direct effect of Adaptability on Customer Experience (0.73). All dimensions are positively related to various measurements of digital assessment. In general, the results confirm and detect an effect between the traits of organizational culture and the digital assessment's measurements.

The independent variable Mission provides a variance of 36% (R2=0.36) in the dependent variable. Consistency depicts a variance of 17% (R2=0.17), which introduces a better effect on the dependent variable.

Tab. 4 Regression analysis of variables

	Dependent Variables					
Independent Variables	Digital Strategy	People	Customer Experience	Innovative Products	Production and Delivery	Infrastructure
Involvement						
R2	0.18	0.13	0.15	0.16	0.11	0.15
β	0.64	0.57	0.62	0.53	0.50	0.57
p-value	0.00	0.00	0.00	0.00	0.00	0.00
t	10.31	8.58	9.3	9.58	7.81	9.32
Consistency						
R2	0.17	0.07	0.12	0.12	0.13	0.1
β	0.65	0.44	0.57	0.47	0.56	0.49
p-value	0.00	0.00	0.00	0.00	0.00	0.00
t	10.07	6.18	8.16	8.03	8.55	7.47
Adaptability						
R2	0.23	0.22	0.22	0.18	0.13	0.2
β	0.72	0.72	0.73	0.56	0.53	0.66
p-value	0.00	0.00	0.00	0.00	0.00	0.00
t	12.1	11.63	11.54	10.39	8.48	11.13
Mission						
R2	0.36	0.22	0.24	0.23	0.23	0.27
β	0.81	0.66	0.7	0.58	0.65	0.7
p-value	0.00	0.00	0.00	0.00	0.00	0.00
t	16.5	11.68	12.31	12.15	12.03	13.53

5 Discussion

The study focuses on examining the relationship between organizational culture and digital progress in organizations. There are not many existing studies that examine the relationship between organizational culture and digital progress. Within organizational culture twelve sub-dimensions were presented which are divided into four traits. Digital assessment consists of six measurements, which present dependent variables. The internal consistency and reliability of the tested items is acceptable.

To establish the link between observed variables, correlation and regression analysis were used to compare the results.

The lower correlation between four traits indicates a clear and distinguishable link. Traits that are related based on dimensional perspective report higher correlation coefficient and less with the incompatible trait. Particular attention should be paid to the correlations between sub-dimensions and digital measurements. Although each dimension correlates positively with digital measurements, we focus on the most significant relation between observed items. The significant relationship is indicated between Core values and Digital Strategy; if one metric increases, the other increases too, and vice versa. Leaders should put emphasis on reinforcing a set of values that contributes to strengthening the digital strategy. Furthermore, Employees' behaviors are entrenched in the values of the organization. Another evidence is that subdimensions Strategic Direction and Intent and Goals and Objectives are consistent with digital measurements. Leaders should focus on linking the strategy and vision of the organization with digital initiatives.

Entire linear regression model is statistically significant at $p\!\leq\!0.05.$ Results point out that the highest relation is between all traits and digital strategy. These contribute the highest in digital progress. Mission defines a meaningful long-term direction of the organization that is in line with digital strategy. Consistency has less impact on dependent variables than the other dimensions within Digital assessment. Nevertheless, Consistency influences highest digital strategy.

Adaptability has a strong effect on Customer Experience. Adaptability reacts to demands from the external environment and turns into action. Due to the significant effect on the Customer Experience, it leads to supporting the process of real-time understanding of customer expectations. In summary, the external focus of the organization (expressed by the highest correlation of Mission and Adaptability) contributes to digital transformation significantly.

Another evident result is that organizations should have a clear digital transformation strategic plan and leadership should be aligned according to digital strategy. An essential characteristic of culture is, in particular, a collective phenomenon shared by members of a society (Davidson et al., 2007).

6 Conclusion

The study contributes to the research of the impact of organizational culture on digital progress within organizations by identifying crucial relationships between traits of organizational culture and digital measurements. The results of the study provide clear evidence of the relationship between traits of organizational culture and digital measurements, specifically between digital strategy and core values and organizational learning. The results emerged from correlating traits of organizational culture and digital measurement paid for attention. Each dimension positively correlates with digital measurements especially within the Adaptability and Mission. These traits highly affect digital evolution within an organization. Organizations with the focus on market change and adaptation will be more likely to digital transformation.

Based on the findings, the trait of Mission influences digital strategy to a high degree. Sum up, if Mission is a strong trait in an organization, there will be more likely to support digital projects. Findings reveal that organizational culture is crucial for successful digital transformation and needs to be given sufficient attention.

Conclusively, this study indicates that organizational culture appears to be a force that boosts digital progress.

Literature:

- 1. Ahn, B., & Ahn, H. (2020). Factors affecting intention to adopt cloud-based ERP from a comprehensive approach. *Sustainability*, *12*(16), 6426. https://doi.org/10.3390/su12166426 2. Badibanga, A., & Ohlson, M. (2021). Millennials' leadership skills for promoting flow and profit in a business simulation. *Journal of Leadership Studies*, *15*(2), 70–80. https://doi.org/10.1002/jls.21768
- 3. Barquero, J. D., Cancelo Sanmartín, M., & Rodríguez Segura, L. (2021). Las competencias digitales como vehículo de la cultura organizacional universitaria. *Revista Latina*, (79), 17–33. https://doi.org/10.4185/rlcs-2021-1495
- 4. Binh, V. T., Tran, N.-M., & Vu, M.-C. (2022). The effect of organizational culture on the quality of accounting information systems: Evidence from Vietnam. SAGE Open, 12(3), 215824402211215. https://doi.org/10.1177/21582440221121599 5. Carlsson, L., Olsson, A. K., & Eriksson, K. (2022). Taking responsibility for industrial digitalization: Navigating organizational challenges. Sustainability, 14(2), 866. https://doi.org/10.3390/su14020866
- 6. Coman, D. M., Ionescu, C. A., Duică, A., Coman, M. D., Uzlau, M. C., Stanescu, S. G., & State, V. (2022). Digitization of accounting: The premise of the paradigm shift of role of the professional accountant. *Applied Sciences*, 12(7), 3359. https://doi.org/10.3390/app12073359
- 7. Dannenberg, P., Fuchs, M., Riedler, T., & Wiedemann, C. (2020). Digital transition by COVID-19 pandemic? The German food online retail. *Tijdschrift voor Economische en Sociale Geografie*, 111(3), 543–560.
- 8. Denison, D. R., & Mishra, A. K. (1995). Toward a theory of organizational culture and effectiveness. *Organization science*, 6(2), 204-223.
- 9. Davidson, G., Coetzee, M., & Visser, D. (2007). Organisational culture and financial performance in a south african investment bank. *SA Journal of Industrial Psychology*, 33(1). https://doi.org/10.4102/sajip.v33i1.261
- 10. Denison, D. R., & Neale, W. S. (1996). Denison Organizational Culture Survey. *PsycTESTS Dataset*. https://doi.org/10.1037/t64206-000
- 11. Denison, D. R., & Neale, W. S. (1999). *DENISON ORGANIZATIONAL CULTURE SURVEY*. Retrieved from https://www.denisonconsulting.com/wp-content/uploads/2019/05/denison-culture-interpretation-guide.pdf.

- 12. Denison, D., Nieminen, L., & Kotrba, L. (2012). Diagnosing organizational cultures: A conceptual and empirical review of Culture Effectiveness Surveys. *European Journal of Work and Organizational Psychology*, 23(1), 145–161. https://doi.org/10.1080/1359432x.2012.713173
- 13. Denison Consulting. (2020). *Digitalization assessment*. Denison Consulting. Retrieved November 17, 2022, from https://www.denisonconsulting.com/digitalization-assessment/
- 14. Foncubierta-Rodríguez, M.-J. (2021). Influence of the Entrepreneur's personal values in business governance style and their relationship with happiness at work. *Corporate Governance: The International Journal of Business in Society*, 22(3), 592–617. https://doi.org/10.1108/cg-05-2021-0197
- 15. Gayer, A. V., Pronichkin, S. V., Tropin, D. V., & Chernyshova, Y. S. (2022). Dynamic and integrative capabilities for Digital Transformation of innovative and institutional potential. *IOP Conference Series: Earth and Environmental Science*, 1069(1), 012026. https://doi.org/10.1088/1755-1315/1069/1/012026
- 16. Hornungová, J. (2014). Development of concepts and models of performance evaluation from the 19th century to the present. *Danube*, 5(2), 143–154. https://doi.org/10.2478/danb-2014-0008 17. Chesbrough, H. (2020). Enel X: driving digital transformation in the energy sector. In *SAGE Business Cases*. The Berkeley-Haas Case Series. University of California, Berkeley. Haas School of Business.
- 18. Jamieson, S. (2004). Likert scales: How to (ab)use them. *Medical Education*, 38(12), 1217–1218. https://doi.org/10.1111/j.1365-2929.2004.02012.x
- 19. Katz, D., & Kahn, R. (1966). L.(1978). The social psychology of organizations, 2.
- 20. Kryshtal, H., Novykova, I., Vasylkonova, E., Kuzminska, Y., & Kozlova, A. (2022). The influence of digitalization on the development of industrial enterprises. *Naukovyi Visnyk Natsionalnoho Hirnychoho Universytetu*, (3), 151–155. https://doi.org/10.33271/nvngu/2022-3/151
- 21. Mamen, J. M. (2018). Happiness and performance at work. IAHRW *International Journal of Social Sciences Review*, 6(9), 1803-1805.
- 22. Porpiglia, F., Checcucci, E., Autorino, R., Amparore, D., Cooperberg, M. R., Ficarra, V., & Novara, G. (2020). Traditional and Virtual Congress meetings during the COVID-19 pandemic and the post-covid-19 era: Is it time to change the paradigm? *European Urology*, 78(3), 301–303. https://doi.org/10.1016/j.eururo.2020.04.018
- 23. Schein, E. H. (1996). Culture: The Missing Concept in Organization Studies. *Administrative Science Quarterly*, 47(2), 229-240
- 24. Sikavica, P. (1999). Novi pristupi dizajniranju organizacije. Konkurentska sposobnost poduzeća, 129-169.
- 25. Skarphedinsson, G., & Gudlaugsson, T. (2013). Psychometric properties of the Icelandic version of the Denison organizational culture survey. *International Journal of Business and Social Science*, 4(4), 13-23.
- 26. Skulmowski, A., & Rey, G. D. (2020). col\(\text{9}\)das an accelerator for digitalization at a German university: Establishing hybrid campuses in times of crisis. *Human Behavior and Emerging Technologies*, 2(3), 212–216. https://doi.org/10.1002/hbe2.201
- 27. Spreitzer, G. (1995). Psychological empowerment in the workplace: Dimensions, measurement, validation. *Academy of Management Journal*, 38, 1442–1466.
- 28. Špatenka, J., & Koch, M. (2021). Sustainable development of companies using the ERP system as a fundamental tool of digital transformation. *Trends Economics and Management*, 15(38), 61–70. https://doi.org/10.13164/trends.2021.38.61
- 29. Teece, D. J. (2010). Business models, business strategy and Innovation. *Long Range Planning*, 43(2-3), 172–194. https://doi.org/10.1016/j.lrp.2009.07.003
- 30. Žugaj Miroslav, Bojanić Benedikt, Brčić Ruža, & Šehanović Jusuf. (2004). *Organizacijska Kultura*. TIVA Tiskara.

Primary Paper Section: A

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