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## THE INFLUENCE OF BUILDING DIGITAL CULTURE ON EMPLOYEES' IN THE ICT SECTOR

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### ABSTRACT

Culture is the heart of any organization. It is like oxygen which we can feel but cannot see and without which we cannot survive. In organizations, culture is like the DNA of an organization thus each organization is a unique one, in this context corporate culture was not only created by the founders, management, and employees of a company, but was also influenced by national cultures and traditions, economic trends, international trade, company size, and products where organizational culture affects the way people and groups interact with each other, with clients, and with stakeholders. Digital transformation is a cultural transformation that affects the majority of people who work, and it will never be realized unless companies are still confident in their employees that digitalization can help organizations, people, and society achieve a better future.

Based on that, employee engagements in digital transformation are a necessity, where an "engaged employee" is fully absorbed by and enthusiastic about their work and so takes positive action to further the organization's reputation and interests. Accordingly, effective digital transformation can never be achieved unless companies build confidence among their staff that digitalization can help organizations, people, and society to achieve a positive future.

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**Keywords-** Digital Culture, Digital Transformation, Corporate Culture, Building Culture, Information Communication Technology, Employee Engagement, Organizational Culture, Power of Digitization, Digital Culture Challenges, e-government

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### Introduction

According to (Ravasi, 2006) organizational culture is defined as a set of shared assumptions that guide behaviors and are taught to new organizational members as a way of perceiving and even thinking and feeling, therefore organizational culture affects the way people and groups interact with each other, clients, stakeholders and that in return effects on how much employees identify with the organization, and in the context of the technological revolution that we are experiencing and the digital transformation, which has become an important competitive advantage that companies seek in light of the fierce competition in global markets, therefore digital transformation becomes a way of radical rethinking how an organization uses technology, people, and processes to fundamentally change business engagement.



In this context, various researchers predict that the next automation wave in the digital workplace will extremely affect the employability of knowledge workers as digital transformation is a cultural transformation affecting the majority of the people working, therefore exceeds the mere digitalization of products and services and companies need to redefine their industries and value propositions (Porter, 2014), based on that, changing the culture within the organization is one of the biggest hurdles in digital transformation. Therefore, aligning company culture through building the digital culture in an organization will affect positively employees' engagement, leading to goal achievement (Sri Handari, 2019).

### **Problem Statement**

During the last decades, the world witnessed a revolution in ICT. According to Heikkilä (2013), with the growth of digitalization, technology adoption by organizations is a necessity these days, which can make a major impact on market performance. Csedo et al. (2017) stated that an organization should change its strategy, structure, behavior, and eventually, its performance by making the different elements of the organization work more effectively under the new digital circumstances. In this regard, Curtis (2018), stated, digital transformation is cultural transformation, which affects the majority of the people working. It has to be a leadership task. If it followed, there is a high chance of success... it is well known that employees will resist because they still see the old behaviors as critical to their success and central to whom they are while seeing the new norms as risky." In order to implement digitalization in the organization, there would be a change in organizational culture which employees must acknowledge and monitor (Handari Wahyuningsih, et al., 2019). Cultural change in any respect is an incremental change, which requires a lot of patience as it does not happen in a day. Therefore, aligning company culture and building the digital culture in the organization in the right way will affect positively employees' engagement (Clarke, 2018).

### **Research Importance**

This research aims to investigate the impact of building digital culture on employees' engagement in the ICT governmental sector. This study plans to develop empirical evidence regarding how to improve the current practice in the ICT government sector through digitalization. The current research seeks to develop insights regarding how building digital culture affects employees' engagement. Employee engagement is a vital asset to any organization. Therefore, the insights that emerge from this research are meant to create more awareness of how the organization's culture affects employee engagement. Accordingly, this research is considered both academically and practically important.

This research seeks to develop a model to be used as a rudimentary structure to inspire future research on this topic in different disciplines. Accordingly, this study is practically important, as technological evolution has been changing the world drastically. Advanced technology has led to changes in how business is conducted in the current market. The Internet has created an enormous wave of change in business strategies. Its advanced technologies and innovations are disrupting traditional ways of thinking and working within organizations (Babinet, 2016). Digitalization and digital transformation is the source of instability for companies that are less agile in promoting a digital culture inside the organization compared to other successful digitalized organizations (Ducrey and Vivier, 2017). This research aids practitioner in gaining further insights into this phenomenon of the digital culture within organizations and its impact on employee engagement.

### **Research Objectives**

In organizations, culture is critical to the shared sense of purpose that mobilizes employees to work towards a common goal. In recent years, technology's role has fundamentally shifted. Technology has become the primary driver of business innovation. Embracing this shift requires everyone in the company to rethink the role and impact of IT in their day-to-day experience. These Objectives are as follows:

#### **Objectives:**

- To recognize the main elements needed for the implementation of digital culture and its effect on employee engagement.
- To explore how digital transformation is conducted in the ICT government sector in Egypt.



- To examine how digital culture influences employees' engagement in the ICT government sector in Egypt.
- To investigate the impact of digital culture elements on employee engagement in the ICT government sector in Egypt.

### Research Questions

In order to achieve this aim, several research objectives are to be achieved. In order to achieve the research objectives, the researcher seeks to answer the following research questions:

#### Questions:

- What are the main elements needed for the implementation of digital culture and its effect on employee engagement?
- To what extent is digital transformation conducted in the ICT government sector in Egypt?
- How can digital culture influence employees' engagements in the ICT government sector in Egypt?
- To what extent the digital culture elements can affect employee engagement in the ICT government sector in Egypt?

### Literature Review

The following sections illustrate the summary of prior studies and literature related to the concept of culture, corporate culture, the forces of corporate culture, Digital Transformation and its impact on corporate culture, Digital Culture, Organization Culture and Organization Performance, Organization Culture leads to Employees' Engagement, Concluding the Literature.

#### Culture:

Each society contains people who think, act and behave in different and unique manners. This is considered culture. Culture according to research is a large and diverse set of intangible aspects of social life (Guy, 1988) "shares its etymology with several other words related to actively fostering growth (Ravasi, 2006).

Culture includes material goods, the things the people use and produce. Culture is also the beliefs and values of the people and the ways they think about and understand the world and their own lives, Customs, laws, dress, architectural style, social standards, religious beliefs, and traditions are all examples of cultural elements. Therefore, every human is born within a certain culture, in which they set we develop and set ourselves within certain cultural horizons and we all are both creators and receivers of culture, at the same time. Thus, in order to understand people, it is necessary to analyze culture's signs, values, and symbols, the way they influence our thinking model and behavior, and so on (Lakoff, 1999). Culture exists not only in societies, but can also exist within any group of people operating together inside a society. Therefore, organizations are known to have a culture of their own. This is called corporate culture.

#### Corporate Culture:

Organizational culture was characterized as a set of shared assumptions that guide behaviors (Ravasi, 2006). In addition, the pattern of such collective behaviors and assumptions is taught to new organizational members as a way of perceiving and, even thinking and feeling. Thus, organizational culture affects the way people and groups interact with each other, clients, and with stakeholders. In addition, organizational culture may affect how much employees identify with an organization.

According to research, corporate culture comes in many forms. For example, there is a corporate culture called Clan, which reflects a supportive culture, which contains employee-oriented leadership, cohesiveness, participation, and teamwork (Han, 2012). The second type of culture is Adhocracy, which is known as entrepreneurial culture, it includes



innovative, creative, and adaptable characteristics (Veisheh, 2014). A third one is Hierarchy culture, which is a combination of rules and regulations to control activities in the organization, (Sok, 2014). The last one is the Market culture, which includes competition and organizational goal achievement (Pinho, 2014). Regardless of the corporate culture, all employees must understand and follow the cultural philosophy that is set up. According to research, “If you don’t understand the culture of your organization, even the most brilliant strategies will fail. Your vision will be resisted, plans won’t get executed properly, and all kinds of things will start going wrong”. For this reason, many organizations seek employees to understand the forces of the corporate culture.

### **Digital Transformation and its impact on corporate culture:**

Digital transformation is a cultural transformation affecting the majority of the people working. Digital transformation marks a radical rethinking of how an organization uses technology, people, and processes to fundamentally change business engagement (George Westerman, MIT principal research scientist and author of *Leading Digital: Turning Technology into Business Transformation*). Digital transformation is generally viewed as an aggregation of modern tools and processes leveraged to solve business problems and satisfy customers. Various researchers predict that the next automation wave in the digital workplace will extremely affect the employability of knowledge workers. Unlike previous automation waves, which were confined to the replacement of routine work and low-skilled personnel, analytical machines will take away decisions from knowledge workers, and thereby provide better choices, faster, and more reliably (Drucker, 2006).

### **Digital Culture:**

According to Arnault (2015), digital culture is a blanket concept that explains the main idea that technology and the Internet are responsible for the way we interact, behave, think, and communicate as human beings in a society. It is the byproduct of technology and access to information, which is in abundance, which in turn is a result of technological innovation. (Buchanan, 2016) discussed the face of digital workers and how can one implement digital culture in a better way. (Jemielniak, 2020) in their paper revealed many analogies showing connections between cross-cultural management research, and studying digital societies. (Yuvika, 2019) gave an iterative approach that helps to shift the paradigm from corporate culture towards a digital mindset in an effective manner. Digital technology can unlock the hurdles in the potential and can bring the right culture. (Albrecht, 2018) provide a link between organizational culture and employee engagement by studying the enablers and inhibitors at Saudi banks. According to (Clarke, 2018), cultural change in any respect is an incremental change, which requires a lot of patience as it does not happen in a day.

Therefore, changing the culture within the organization is one of the biggest hurdles in digital transformation. (Shaughnessy, 2018) discusses that in order to promote the cultural and technical changes which are required for a successful digital transformation, a few leading firms have adopted an agile framework designed specially to support small teams to achieve goals related to customers and maintain other network systems within and outside the organization. According to Gartner, Digital Dexterity is the ability and desire to exploit existing technologies for better business outcomes. Simply digital culture refers to the relationship between humans and technology.



**Table 1: PwC shares a view of what an Analog Culture looks like versus a Digital Culture**

Analog Culture	Digital Culture
<p><b>Customers and Demand</b></p> <ul style="list-style-type: none"> <li>• Pushes products into the market</li> <li>• Driven by purchase and supply</li> </ul>	<p><b>Customers and Demand</b></p> <ul style="list-style-type: none"> <li>• Pulls ideas from the market</li> <li>• Driven by customer demand</li> </ul>
<p><b>Organization</b></p> <ul style="list-style-type: none"> <li>• Strong hierarchy</li> <li>• Slow decision making</li> <li>• Defined tasks (“do this job”)</li> </ul>	<p><b>Organization</b></p> <ul style="list-style-type: none"> <li>• Flat hierarchy</li> <li>• Rapid decision making</li> <li>• Result and product orientation</li> <li>• Empowered employees (“find a way to achieve a goal”)</li> </ul>
<p><b>Attitudes and Ways of Working</b></p> <ul style="list-style-type: none"> <li>• Understands needs of long-standing customers and how to fulfill them</li> <li>• Orientation toward status quo, past lessons, and accepting constraints</li> <li>• Experienced and stability count</li> <li>• Homogenous teams, working within departmental silos</li> <li>• Career progression within defined paths</li> <li>• Focus on planning and optimization</li> </ul>	<p><b>Attitudes and Ways of Working</b></p> <ul style="list-style-type: none"> <li>• Understands needs of digital customers and how to adopt new trends</li> <li>• Orientation toward innovation, improvement, and overcoming constraints</li> <li>• Potential, vision, curiosity, motivation, flexibility, and adaptability count</li> <li>• Mixed teams working in cross-functional integrated communities</li> <li>• Strong collaboration</li> <li>• Rapid, unpredictable career progression</li> <li>• Focus on rapid launch and learn</li> </ul>

Source: Developed by the researcher

**Organization Culture leads to Employees’ Engagement:**

Employee engagement is a key driver for organizational success. High levels of engagement promote the retention of talent, foster customer loyalty, and improve organizational performance. Engagement is influenced by many factors: workplace culture, communication, managerial styles, trust, and respect (Lockwood, 2007). Many organizations recognize that employees are their best assets which allows them to compete in the marketplace to achieve a competitive advantage (Bryman, 2012). In today’s ever-changing business world, employee motivation goes beyond



salaries. Employees now anticipate that their role should contribute to and affect the business in a greater sense. Hence, organizations need to ensure that employees are motivated to perform at their highest potential. (Monsen, 2009). in his research has stated that every individual employee is motivated by a different incentive internal or external, monetary or non-monetary by its nature.

Employee engagement has emerged as one of the greatest challenges in today's workplace. With complexities and stringent regulations in many organizations, employee engagement will continue to challenge organizations in the future. This aspect challenges management because engagement is a critical element in maintaining the organization's vitality, survival, and profitability (Albrecht, 2018).

### **Concluding the Literature:**

There is no doubt that the Covid-19 crisis has cast a shadow on the business environment in general and has negatively affected business results in all different sectors. Given the current situation with COVID-19, many workplaces are turning to remote work, some for the first time. With workers being away from direct supervision, employee engagement becomes that much more important, as an engaged employee can be trusted to competently, and consistently perform their job, often going beyond their job description to make sure that they are delivering high-quality results. Accordingly, the pandemic was the main support and drive for institutions to move to digital transformation, and then the great importance of these institutions was to adapt to the environment and new work. Simply, life after the pandemic will not return to what it was in the past, and institutions that will not keep pace with this change will not be able to continue. Culture plays a very important role in digital transformation. (Li C., 2014) believes that there are various challenges and hurdles to overcome; the result of a strong employee engagement strategy is the complete transformation of not only the organization but also of the persons who are acting as the stakeholders within the organization. In this context, digital success requires industrial companies to build a culture that is closely aligned with the business, talent, and technology strategies in order to facilitate and not impede the digital transformation, therefore aligning company culture and building the digital culture in the organization in the right way will affect positively on employees' engagement.

### **Research Methodology**

The research design, philosophy, characteristics of the chosen sample, validation of the research, and the reasons behind the selected approach is discussed. A well-developed methodology is vital as it lays the foundation for valid and reliable research results (Styhre, 2013). Leading towards the goal of answering the research question, it serves as the blueprint for how research is conducted (Yin, 1994).

### **Research Model**

Based on the literature review, the researcher reviewed many frameworks and prior studies in order to gain further secondary data that would shed light on how building digital culture impact employees' engagement in the ICT government sector.



Figure 1: The Conceptual Framework

Source: Developed by the researcher

### Research Hypothesis

According to the proposed conceptual framework, this study contains four independent variables (digital culture mission, digital culture consistency, digital culture adaptability, and digital culture involvement) and one dependent variable (employee engagement). Therefore, there is a significant relationship between digital culture and employees' engagement in the ICT government sector.

### Research Approach

The research strategy will use a qualitative method approach. It will combine both qualitative and quantitative approaches. The qualitative research approach is less tangible. It concerns subjective characteristics and opinions – things that cannot be expressed as a number. In this study, the researcher seeks to conduct qualitative research in order to gain clarification on how the ICT government sector enables digitalization. The research seeks to understand how digital culture is implemented within organizations.

### Population and Samples

The population for this study will be the employees' of the ICT governmental sector. The sample will be random employees' selected from ICT governmental entities from different departments and divisions. The researcher selected to focus on this industry because of the strategic plan that the country has created. The government of Egypt wanted to turn Egypt into a digital country. In order to do so, the ICT sector will play a vital role.

In this research, the researcher chose non-probability sampling. During the interviews, the researcher will select participants based on judgmental sampling. Judgmental sampling is a strategy in which particular settings persons or events are selected deliberately in order to provide important information that cannot be obtained from other choices (Maxwell, 1996). It is where the researcher includes cases or participants in the sample because they believe that they warrant inclusion. During the distribution of questionnaires, it will be based on convenience sampling, through selecting participants because they are often readily and easily available, as it is inexpensive and an easy option compared to other sampling techniques (Ackoff, 1953). Convenience sampling often helps to overcome many of the limitations associated with research. For example, using friends or family as part of the sample is easier than targeting unknown individuals.

The size of the sample will vary in the qualitative and the quantitative. During the qualitative, the researcher will select as many participants until the saturation level is met. When it comes to the quantitative and according to Salant, P., & Dillman, D. A., (1994), the size of the sample is determined by four factors; (1) how much sampling error can be



tolerated, (2) population size, (3) how varied the population is with respect to the characteristics of interest, and (4) the smallest subgroup within the sample for which estimates are needed.

### Time Horizon

In this research, a cross-sectional study is applied. The researcher will collect data for the investigation only once, over a period of days, weeks, or even months as a means to answer research questions.

### Data Collection Tool

This research uses the qualitative research approach, a semi-structured interview will be conducted. A semi-structured interview is a meeting in which the interviewer does not strictly follow a formalized list of questions. Instead, they will ask more open-ended questions, allowing for a discussion with the interviewee rather than a straightforward question-and-answer format (Saunders, 2011). A series of interviews will be conducted with an average of 10 different levels of management from different functional areas in the ICT government sector. The purpose of the interviews is to assure that the research problem does exist.

### Data Analysis

The qualitative research used semi-structured interviews to collect the needed data to be analyzed. The interviews were conducted with the aid of an interview guide that contained several sections with various questions: an introduction section, a section that focuses on digital culture, digital challenges, and employee engagement, and then a conclusion section. Ten interviews were conducted until the saturation level was met. Saturation means that when interviewing the individuals, towards the end no additional data were found whereby the researcher can confirm the completion of the data collection and begin to develop an assessment and properties of the category. The data that was gained during the qualitative research was analyzed using thematic analysis, closely assessing the data to identify common themes – topics, ideas, and patterns of meaning that come up repeatedly. In order to begin the analysis, the researcher transcribed all the interviews (transcription is found in the appendix). Once the interviews were transcribed, a revision of the documents was made to be combined, reduce, and rearranged the data to be able to identify the main codes that emerged, then subsequently the themes. The themes represent the main conclusions that emerged from the questions that were asked, where nine questions were inquired in this study, which led the study to develop 9 main themes.

**Table 2: Interview Guide**

Key area	Questions	Purpose
<b>Generic Section</b>	1. What is your background and your role in your organization? Name of Organization. 2. What is your managerial level? 3. For how long time have you been working for the organization?	Socio-demographic traits
<b>Introduction Section</b>	4. Are you familiar with the technologies (software) that are used in your organization in the ICT sector? What are they 5. Do you have experience in using these technologies? Explain your experience.	Aware of technology Experience level
<b>Digital Culture Section</b>	6. Describe your organization's culture in regard to the mission, employee involvement, teamwork, relationship with management, etc.? 7. What is digital culture? Did your organization begin the digital	Culture identification Digital culture awareness



	transformation? Explain. 8. What are the benefits that you see in applying the digital culture in your organization? Explain	Digital Benefits
<b>Digital Challenges Section</b>	9. What are the challenges that you face during the digital transformation in your organization? Explain 10. How does your organization help its employees in dealing with the digital transformation in the organization? Explain	Digital Challenges Role of organization in digitalization
<b>Employee Engagement Section</b>	11. Does the organization provide you with certain empowerment? Explain	Empowerment
<b>Conclusion</b>	12. Do you believe that digital transformation is necessary to achieve the current KPI? Explain	Power of digitalization

Source: Developed by the researcher

**Key Area 1: Generic Section**

The interviews were held among different employees in the ICT sector in Egypt. These employees came from different backgrounds at work and held different socio-demographic characteristics. The employees participating in the interview were from several organization entities. The majority of the interviewees were engineers and computer scientists; the minority of the interviewees had a business background and fine arts. The employees that participated in this study held managerial level, the majority were from middle-level of management, while the minority were from Lower-level and Top-level management. These interviewees held different years of experience, ranging from two years of experience to twenty-two years of experience. Table 8 illustrates the interviewees' socio-demographic traits that participated in this study. Now, the following sections illustrate the thematic analysis that emerged from these groups of employees. The following section pinpoints each key area that was found in the interviews, the questions that were discussed, and the summary of the comments made during the discussions.



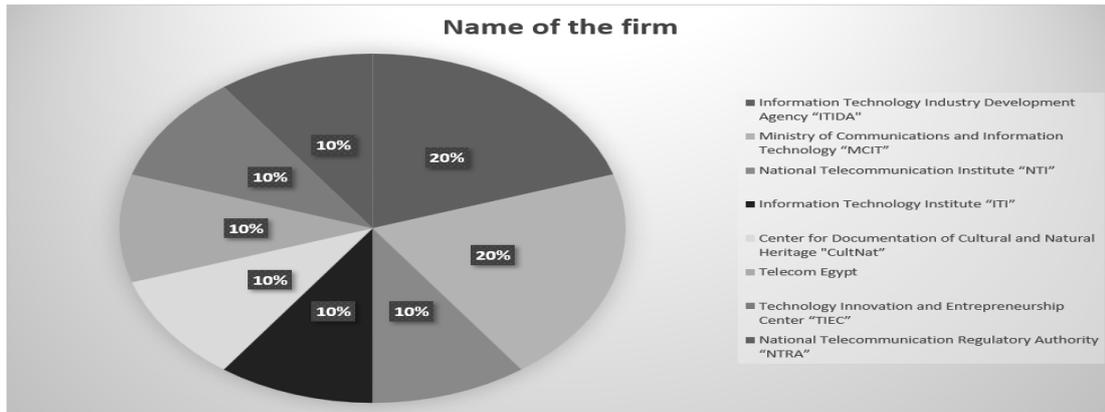


Figure 2: Interviewee's socio-demographic  
Source: Developed by the researcher

### Key Area 2: Basic Perspectives of Digitalization at Work

The interviews began with various introduction questions that aim the discussion if the employees are aware of the various technologies that are used in the organization. This section was introducing the practice of digitalization mindfulness. In this section, two main questions were asked: (1) Are you familiar with the technologies (software) that are used in your organization in the ICT sector? (2) Do you have experience in using these technologies? These questions allowed for two themes to emerge. Figure 3 below illustrates the emerging themes from the question inquiries. The following paragraphs illustrate the analysis of the questions and how the themes emerged.

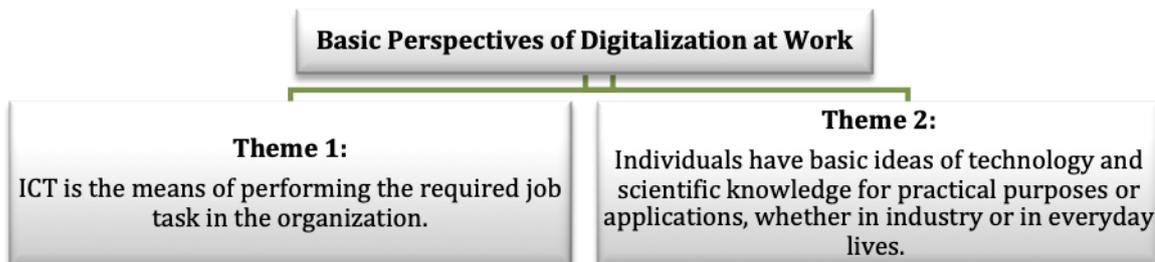


Figure 3: Themes related to Basic Perspectives of Digitalization at Work  
Source: Developed by the researcher

**Question One:** Are you familiar with the technologies (software) that are used in your organization in the ICT sector? What are they? The purpose of this question was to understand employees' awareness of the technology software that is applied in their organization. Due to this analysis, the researcher concludes the first theme: Information and communication technologies (ICTs) are the means of performing the required job task in the organization.

**Question Two:** Do you have experience in using these technologies? The purpose of this question was to explore the employees' capabilities in using technologies that are applied in their organization. Accordingly, based on the discussion of question two, theme two emerged: Individuals have basic ideas of technology and scientific knowledge for practical purposes or applications, whether in industry or our everyday lives.

### Key Area 3: An Overview of Digital Culture in ICT Organizations

This part of the interview aims to explore the interviewee's level of understanding the Culture identification, Digital culture awareness, and Digital Benefits. In this section, three questions were asked: (1) Describe your organization's culture in regards to the mission, employee involvement, teamwork, relationship with management, etc.? (2) What is digital culture? Did your organization begin the digital transformation? (3) What are the benefits that you see in applying the digital culture in your organization? These questions allowed for three themes to emerge. Figure 4 illustrates the emerging themes from the interviewee's responses to the questions. The following paragraphs illustrate the analysis of the questions and how the themes emerged.

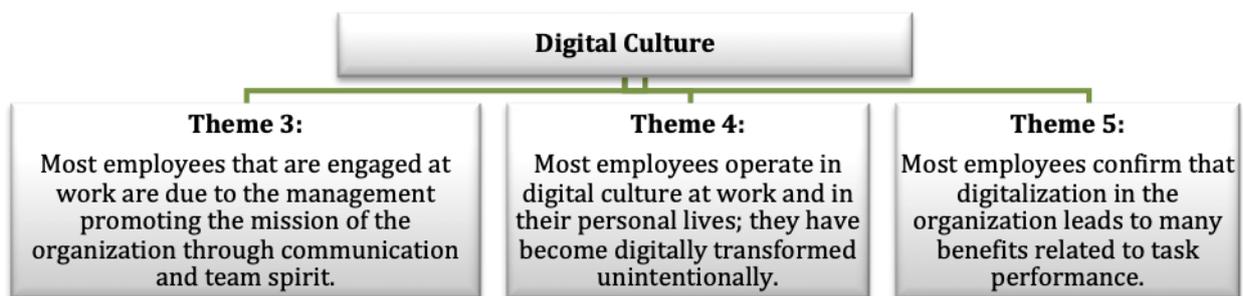


Figure 4: Themes related to Digital Culture

Source: Developed by the researcher

**Question One:** Describe your organization's culture in regard to the mission, employee involvement, teamwork, relationship with management, etc.? The purpose of this question was to explore the employees' opinions about their organization's mission, involvement, teamwork, and relationship with management. Due to this analysis, the researcher concludes *the third theme: Most employees that are engaged at work are due to the management promoting the mission of the organization through communication and team spirit.*

**Question Two:** What is digital culture? Did your organization begin the digital transformation? Explain. The purpose of this question was to explore the employees' knowledge about digital culture and whether their organization applies digital transformation. Accordingly, based on the discussion of question two, *theme four emerged: Most employees operate in digital culture at work and in their personal lives; they have become digitally transformed unintentionally.*

**Question Three:** What are the benefits that you see in applying the digital culture in your organization? Explain. The question aims to investigate the extent to which employees benefit from the application of digital culture. All benefits had a role in improving work performance among employees accordingly, based on the discussion of question three, *theme five emerged: Most employees confirm that digitalization in the organization leads to many benefits related to task performance.*

### Key Area 4: Digital Challenges Section

This part of the interview aims to explore the interviewee's level of understanding of the digital challenges and the role of organizations in digitalization. In this section, two questions were asked: (1) What are the challenges that you face during the digital transformation in your organization? Explain (2) How does your organization help its employees in dealing with the digital transformation in the organization? Explain. These questions allowed for two themes to emerge. Figure 5 illustrates the emerged themes from the interviewee's responses to the questions. The following paragraphs illustrate the analysis of the questions and how the themes emerged.



Figure 5: Themes related to Digital Culture Challenges  
Source: Developed by the researcher

**Question One:** What are the challenges that you face during the digital transformation in your organization? Explain. The question aims to investigate to what extent employees face challenges during digital transformation. Based on these conclusions, the researcher concludes *the sixth theme: Technological developments are rapid and progressive, requiring constant learning from employees to keep pace.*

**Question Two:** How does your organization help its employees in dealing with the digital transformation in the organization? Explain. The purpose of this question was to investigate the extent to which organizations provide support to employees to deal with digital transformation. The majority of employees stated that the organizations provide regular training on updated software and programs. Based on that, the researcher concludes *the seventh theme: Most organizations seek to provide knowledge to employees by educating them through training, courses, and hands-on experience.*

#### Key Area 5: Employee Engagement Section

This part of the interview aims to explore the interviewee's level of engagement. In this section, two questions were asked: (1) Does the organization provide you with certain empowerment? Explain. These questions allowed for three themes to emerge. Figure 6 illustrates the emerging themes from the interviewee's responses to the questions. The following paragraphs illustrate the analysis of the questions and how the themes emerged.

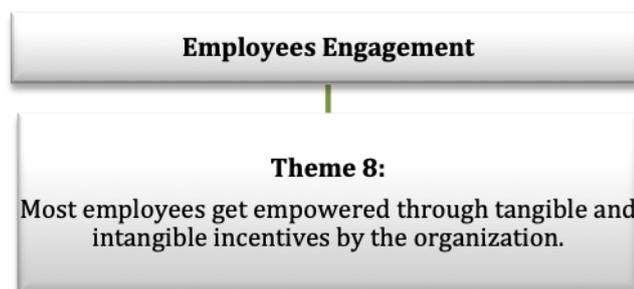


Figure 6: Themes related to Employees Engagement  
Source: Developed by the researcher

This part of the interview aims to explore the level of passion employees hold for their jobs. During the discussions, employees mentioned that most managers empower employees by giving them extra responsibilities in their jobs. Accordingly, based on the discussion of question one, *theme eight emerged: Most employees get empowered through tangible and intangible incentives by the organization.*

## Key Area 6: Conclusion Section

This section summarized the power of digitalization. One main question was asked in this section: (1) Do you believe that digital transformation is necessary to achieve the current KPI? According to the employees' responses in the interviews, the researcher developed the final theme as shown in Figure 7. The following paragraphs illustrate the analysis of the questions and how the themes emerged.

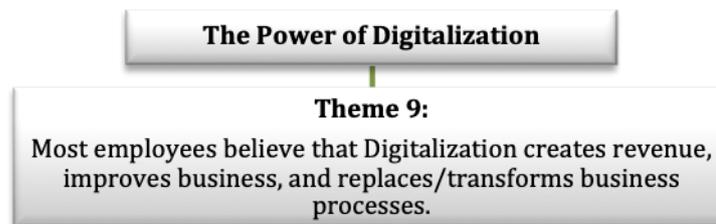


Figure 7: Themes related to the Conclusion

Source: Developed by the researcher

**Question:** Do you believe that digital transformation is necessary to achieve the current KPI? The question aims to explore the importance of digital transformation to achieve the organization's KPI. Therefore, for businesses to be able to survive in the face of the future, digitalization is a necessity – an obligation. Based on this conclusion, the final theme emerged: Most employees believe that Digitalization creates revenue, improves business, and replaces/transforms business processes.

## Conclusion

Semi-structured interviews were used to collect the data necessary for analysis, where the researcher conducted ten interviews until reaching the saturation level, the data were collected in an integrated manner and analyzed objectively to reach the results and conclusions. In this regard, the study sought to find out are interviewees' views on the application of digitization within the performance of the institution; to what extent employees lack of knowledge or misrepresentation of the concept of digital culture; and whether the digital culture in the organization improves employee participation and performance. The qualitative data collection and analysis reflect what constitutes a digital culture, and the current digitalized practice that is implemented among companies in Egypt, specifically in the ICT governmental sector.

In this context, the final results were represented in the following themes: (1) ICT is the means of performing the required job task in the organization, (2) Individuals have basic ideas of technology and scientific knowledge for practical purposes or applications, whether in industry or in everyday lives, (3) Most employees that are engaged at work is due to the management promoting the mission of the organization through communication and team spirit, (4) Most employees operate in digital culture at work and in their personal lives; they have become digitally transformed unintentionally, (5) Most employees confirm that digitalization in the organization leads to many benefits related to task performance, (6) Technological developments are rapid and progressive, requiring constant learning from employees so to keep pace, (7) Most organizations seek to provide knowledge to employees through educating them through training, courses, and hands-on experience, (8) Most employees get empowered through tangible and intangible incentives by the organization, and finally (9) Most employees believe that Digitalization creates revenue, improves business, and replaces/transforms business processes as illustrated in table 9, which summarize the qualitative data analysis themes.

From this standpoint, it was also necessary to clarify the advantages of building a digital culture, not only for the success of digital transformation but because it has other important aspects such as: (1) Breaking down hierarchies and expediting work, as It's important to give employees the freedom to make their own decisions, which give them the



ability to act more quickly. (2) Encourages innovation, as digital culture enables organizations to foster a workplace that motivates employees to try new things whilst enhancing the learning of your workforce. (3) Attracts new age talent and retains current workforce, which increases employee engagement, permitting them to bring their voice of opinions and create an impact.

## References

- Albrecht, S. B. (2018). Organizational resources, organizational engagement climate, and employee engagement. *Career Development International*, 23(1), 67–85.
- Arnault, D. C. (2015). *What is Digital Culture? An introduction to Digital Culturists*.
- Babinet, G. (2016). *Transformation digitale: L'avènement des plateformes : Histoires de*.
- Bailey, A. A.-M. (2016). The roles of employee job satisfaction and organizational commitment in the internal marketing-employee bank identification relationship. *International Journal of Bank Marketing*, 34(6), 821–840.
- Bel, M. v. (2018). *Digital culture: Your competitive advantage Report*. Microsoft .
- Bryman, A. B. (2011). *Business Research Methods* (3rd ed.). Oxford: Oxford University Press.
- Buchanan, J. a. (2016). *Digital workplace and culture: How digital technologies are changing the workforce and how enterprises can adapt and evolve*. Deloitte Digital.
- Camp, W. (2001). Formulating and evaluating theoretical frameworks for career and technical education research. . *Journal of Vocational Education Research*.
- Chamorro-Premuzic, T. (2016). *Personality and Individual Differences, 3rd Edition*. London: wiley.
- Clarke, A. (2018). *Prioritize culture change to accelerate digital transformation*.
- Curtis, A. (2018). *Digital Culture: Your Competitive Advantage*.
- Daniel Gerster, U. o. (2017). *Digital Transformation and IT: Current State of Research, Proceedings*. 133.
- Daniel R. Denison, P. a. (1999). *Denison Organizational Culture Survey - Facilitator Guide*. Denison Consulting, LLC.
- Drucker, P. (2006). *The management consultant, educator, and author*.
- Ducrey, V. &. (2017). *Le guide de la transformation digitale*. Eyrolles, Hub Management.
- Easterby-Smith, M. T. (2012). *Management Research (4th edn)*. . London: Sage.
- Fichman, R. G. (2014). Digital Innovation as a Fundamental and Powerful Concept in the Information Systems Curriculum.” . *MIS Quarterly*, , pp. 38(2), 329-343.
- Guy S. Saffold, I. (1988). Culture Traits, Strength, and Organizational Performance: Moving beyond "Strong" Culture. *The Academy of Management Review*.
- Hamel, G. a. (1994). *Competing for the future*. Boston. Harvard Business School Press.
- Han, H. (2012). The relationship among corporate culture, strategic orientation, and financial performance. *Cornell Hospitality Quarterly*, pp. 53, 207-219. doi:10.1177/1938965512443505.
- Hay, C. (2006). *POLITICAL ON TO LOGY. The Oxford handbook of contextual political analysis*, 5, 78. .
- Heron, J. &. (1997). *A participatory inquiry paradigm. Qualitative inquiry*, 3(3), 274-294.



- Jemielniak, D. (2020). Thick Big Data: Doing Digital Social Sciences. In D. Jemielniak, *Thick Big Data: Doing Digital Social Sciences* (pp. 131–132). Oxford Academic.
- Kar, J. B. (2017). *The Digital Culture Challenge: Closing the Employee-Leadership Gap*. North America: Capgemini Consulting.
- Karen Mishra, a. L. (2015). Driving Employee Engagement: The Expanded Role of Internal Communications. *International Journal of Business Communication* , Vol. 51(2) 183–202 .
- Lakoff, G. J. (1999). *Philosophy in the flesh*. New York: The embodied mind and its challenge to western thought, Basic Books.
- Levin, D. M. (1988). The opening of vision: Nihilism and the postmodern situation. . *London: Routledge*.
- Li C., a. J. (2014). *Strengthening Employee Relationships in the Digital Era- How Digital Employee Engagement and Advocacy Transform Organizations?* Market overview report.
- Lockwood, N. (2007). Leveraging employee engagement for competitive advantage: HR’s strategic role. *Society for Human Resource Management Research*, pp. Quarterly, 3, 1, 1–11.
- Marcia Ogawa Matsubayashi, R. T. (2019). *Insights about Digital Transformation and ICT Opportunities for Brazil*. Deloitte.
- Marciano, P. (2010). *Carrots and Sticks Don’t Work: Build a Culture of Employee Engagement with the Principles of Respect*. New York: McGraw Hill Professional.
- Marta B. Calás, L. S. (1997). *Postmodern Management Theory, 1st Edition*. London:  
<https://doi.org/10.4324/9780429431678>.
- Maxwell, J. A. (1996). Applied social research methods series, Vol. 41. Qualitative research design: An interactive approach. *Sage Publications, Inc*.
- MCIT. (2021). Retrieved from Ministry of Communications and Information Technology: [WWW.MCIT.GOV.EG](http://WWW.MCIT.GOV.EG)
- Melanie Birks, K. F. (2019). Grounded theory research: A design framework for novice researchers. *SAGE Journals*. Retrieved from SAGE Journals: <https://doi.org/10.1177/2050312118822927>
- Monsen, V. (2009). Integrating engagement and empowerment. *Journal of Management Decisions*, Vol. 7 No.1. .
- Moore, J. (2018). *Get work ready in Digital Marketing*. Singapore: Avado Asia Pacific Pte, Registered office: No. 6A Shenton Way, 04-02 to 04-08 OUE Downtown Singapore 068815.
- MOSTYN, B. (1985). The content analysis of qualitative research data: a dynamic approach. *Academic Press, London*, pp. pp 115-45.
- Mu, Y. B., & Vinig, T. (2019). *Service innovation quality in healthcare: Service innovativeness and organizational renewal as driving forces*.
- Mu, Y., Bossink, B., & Vinig, T. (2019). *Service innovation quality in healthcare: Service innovativeness and organizational renewal as driving forces*.
- Nadler, D. A. (1998). *Champions of change: How CEOs and their companies are mastering the skills of radical*



*change*. San Francisco: Jossey Bass. .

NESH, T. N. (2022, 5 26). Guidelines for Research Ethics in the Social Sciences and the Humanities (5th edition). The Norwegian National Research Ethics Committees.

Nicki Lisa Cole, P. (2020, August 27). *So What Is Culture, Exactly?* . Retrieved from ThoughtCo:

<https://www.thoughtco.com/culture-definition-4135409>

Patton, M. Q. (2002). *Two decades of developments in qualitative inquiry: A personal, experiential perspective*. *Qualitative social work, 1(3)*, 261-283.

Pinho, J. R. (2014). The role of corporate culture, market orientation, and organizational commitment in organizational performance. *Journal of Management Development, 33*, 374-398. doi:10.1108/JMD-03-20130036 .

Porter, M. &. (2014, November). How Smart, Connected Products Are Transforming Competition. *Harvard Business Review*, pp. pp.66–88.

Ravasi, D. &. (2006). Responding to organizational identity threats: Exploring the role of organizational culture. *Academy of Management Journal, 49*, 433-458. .

Saunders, J. a. (2011). ‘Manoeuvring towards research decline: the RAE and the decline of Britain's international research standing’. *European Journal of Marketing*,.

Saunders., L. a. (2012). *Research methods of business students*. . Essex: Pearson Education Limited. Schein, E. H 1996. Leadership and organizational culture. The leader of the future, 11: 116. .

Schein, E. (2004). *Organizational Culture and Leadership, 3rd edition*,. San Francisco: Jossey-Bass.

Schmaus, A. H. (2013). *Building a digital culture. How to meet the challenge of multichannel digitization*. Booz & Company.

Sebastian, I. M. (2017). *How big old companies navigate digital transformation*. *MIS Quarterly Executive*.

Shaughnessy, H. (2018). *Creating digital transformation: strategies and steps*. Emerald Publishing Limited, 46(2), 19 25.

Shuck and Karen, W. (2010, December). Employee Engagement and HRD: A Seminal Review of the Foundations Brad. *Human Resource Development Review*, . p. 9: 89.

Silverman, D. (2013). *Doing Qualitative Research: A practical handbook*. . London: Sage.

*Society for Human Resource Management*. (2014). Retrieved from <https://www.shrm.org/>

Sok, J. B. (2014). Positive and negative spillover from work to home: The role of organizational culture and supportive arrangements. *British Journal of Management, 25*, 456-472. doi:10.1111/1467-8551.12058 .

Sparapani, M. K. (2021). *What is digital transformation?* TechTarget.

Spreitzer, G. (1995). Psychological empowerment in the workplace: dimensions, measurement, and validation. *Academy of Management Journal, Vol. 38 No. 5*,, pp. 1442-6.

Sri Handari Wahyuningsih, a. A. (2019). Analysis of organizational culture with denison’s model approach for international business competitiveness. *Problems and Perspectives in Management*.



- 
- Sri Handari Wahyuningsih, A. S. (2019). Analysis of organizational culture with denison's model approach for international business competitiveness. . *Problems and Perspectives in Management*, , pp. 17(1), 142-151. d.
- Styhre, A. (2013). *How to write academic texts*. Lund: Studentlitteratur. .
- Styhre, A. (2013). How to write academic texts: A practical guide.
- Tabrizi, B. E. (2019). Digital transformation is not about technology. *Harvard Business Review* 13.
- Thompson, S. K. (2012). *Sampling, Third Edition*. Wiley Series in Probability and Statistics.
- Tsoukas, H. &. (2003). Introduction: The need for meta-theoretical reflection in organization theory. *In The Oxford handbook of organization theory*. Oxford University Press., pp. 1-36.
- Veiseh, S. M. (2014). The relation between transformational leadership and organizational culture. *Journal of Business Studies Quarterly*, 5, 113-124. Retrieved from <http://jbsq.org>.
- Vuong, Q.-H., La, V.-P., Vuong, T.-T., Ho, M.-T., Nguyen, H.-K. T., Nguyen, V.-H., . . . Ho, M.-T. (2018). *An open database of productivity in Vietnam's social sciences and humanities for public use*. Nature Publishing Group.
- Wahyuningsih, S. H. (2019, March 1). Analysis of organizational culture with denison's model approach for international business competitiveness. *Problems and Perspectives in Management*.
- Wren, H. (2021, September 16). What is digital transformation? Definition, examples & importance.
- Wuensch, K. L. (2005). *Encyclopedia of statistics in behavioral science*.
- Yuvika Singh, a. D. (2019). Digital Culture –A Hurdle or A Catalyst in Employee Engagement. *International Journal of Management Studies*.