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Abstract
The primary focus of this research study is the field of digital transformation (DT) which is the latest topic to emerge in regards to organizational change. DT is best understood as a process where CEOs and middle-class level participants innovate and transform the private sector to respond to developments and changes within their business and technological environments. This dissertation discusses digitalization from the viewpoint of an array of diverse studies which have been carried through collecting data from several private sectors, and a literature study to understand the data on DT as a distinct phenomenon. The dissertation aims to help the Lebanese private sector systematically handle the changes associated with digitalization through the four metaphors (culture, mechanism, organic aspect, and brain), and to seek to understand the relationships that drive the DT processes. In addition, DT unfolds over time to present an array of advantages and challenges based on the approach of Gareth Morgan in using the four metaphors and how managers, CEOs, and employees cope with these changes. The research was conducted by collecting data from primary and secondary sources; primary data was obtained from semi-structured interviews while secondary sources were gathered from written and electronic sources such as websites, online articles, and books. The method used in conducting this research is semi-structured interviews with ten employees from the Lebanese private sector to improve visibility and performance. The results of this thesis suggested that the private sector responds in various ways to developments regarding digital transformation and revealed that metaphors in DT should enhance the change in the Lebanese private sector. Studies have concluded that if the focus of implementation was aimed towards the technical aspect rather than the human aspect of the project, it would be to failure. Therefore, more research is needed on how behavior is connected to digital transformation.

Key words:
Digital Transformation, Organizational Change, leadership, Metaphors (Mechanism, Organic, Culture And Brain), Private Sector

ورقة بحثية

تأثير التحول الرقمي على الإدارة في القطاع الخاص اللبناني

خضر عبدالفتاح العمري

جامعة الاداب والعلوم التكنولوجيا في لبنان

المؤلف المراسل: خضر عبدالفتاح العمري ، جامعة الاداب والعلوم التكنولوجيا في لبنان

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المستخلص

التركيز الأساسي لهذه الدراسة البحثية هو مجال التحول الرقمي(DT) ، وهو أحدث موضوع ظهر فيما يتعلق بالتغيير التنظيمي. من الأفضل فهم DT على أنها عملية يقوم فيها الرؤساء التنفيذيون والمشاركين من الطبقة المتوسطة بابتكار وتحويل القطاع الخاص من أجل الاستجابة للتطورات والتغيرات داخل بيئات أعمالهم وبيئاتهم التكنولوجية. تناقش هذه الورقة الرقمنة من وجهة نظر مجموعة من الدراسات المتنوعة التي تم إجراؤها من خلال جمع البيانات من عدة قطاعات خاصة ودراسة الأدبيات لفهم البيانات المتعلقة بـ DT كظاهرة متميزة. تهدف هذه الورقة إلى مساعدة القطاع الخاص اللبناني على التعامل بشكل منهجي مع التغييرات المرتبطة بالرقمنة والسعي إلى فهم العلاقات التي تحرك عمليات تطوير التكنولوجيا استناداً إلى نهج غاريث مورغان في استخدام الاستعارات الأربعة وكيفية تعامل المديرين والرؤساء التنفيذيين والموظفين مع هذه التغيرات. هذه التغيرات. كانت الطريقة المستخدمة في إجراء هذا البحث عبارة عن مقابلات شبه منظمة مع عشرة موظفين من القطاع الخاص اللبناني من أجل تحسين الرؤية والأداء. تشير نتائج هذه الورقة إلى أن القطاع الخاص يستجيب بطرق مختلفة للتطورات المتعلقة بـ DT وكشفت أن الاستعارات في DT يجب أن تعزز التغيير في القطاع الخاص اللبناني. وقد خلصت الدراسات إلى أنه إذا كان التركيز في التنفيذ يستهدف الجانب الفني وليس الجانب الإنساني للمشروع، فإنه سيؤدي إلى فشله. ولذلك، هناك حاجة إلى مزيد من البحث حول كيفية ارتباط السلوك بتحوله الرقمي.

الكلمات الرئيسة

التحول الرقمي، التغيير التنظيمي، القيادة، الاستعارات (الآلية، العضوية، الثقافة والعقل)، القطاع الخاص.

INTRODUCTION
Background and Overview

Digital is often viewed as a dark art that some professionals believe because the speed of development is tough and there weren't enough technologies as Samuels (2018) assumed. Digital, analytics, clouds, core modernization, and the changing role of IT (information technology) are at the heart of the DT trends that are fueling innovation and growth in the private sectors. According to Wellington Webb (n.d.) the 19th century was a century of empires; the 20th century was a century of nation states. However, the 21st century will be a century of cities. We are living in a digital age where digital transformation (DT) is the current topic for discussion all around and very well suited to decide the business-agenda of companies worldwide. Rather, what truly distinguishes and gives a digital enterprise its competitive advantage is its culture, strategy, and way of operating.

Digitally maturing companies are innovating differently through collaborations between teams resulting in increased agility. Additionally, digitally maturing companies have greater autonomy focusing on the products and ethics. Part of the reason for this emphasis, says Yoo, M., Treuhaft (n.d.), is that ecosystems enable organizations to operate more flexibly. This leads digitally maturing companies to gain potential innovations because they fight the strategy, talent, organizational structure, and culture.

Innovative technological knowledge is a global phenomenon because it is an important input for crop productivity enhancement. For example, private sector firms are critical players, therefore major energy challenges should be taken into account in a broad scale and should be adapted. Technology is popular because it is reliable, easy to use, and has a low system cost. In order to solve the challenges of the private sector, two questions must be put in mind. First, which digital competences are needed in private sector organizations and how long employees have these competencies? Second, how does the private sector give employees with the needed digital competences (Vieru et al., 2015).

In the aforementioned research, DT is not just about adding technology. For DT to be successful, there should not be thousands of people for an ongoing project. Digital transformation starts with one industry and one business unit, delivers the action plan, and then uses that plan to spread it to other divisions (Moazed, 2018). Also, Chief Development and Information Officer (CDIO) is important because it drives the vision for DT (Ashwell, 2017). As a new topic, little research has been conducted on digital transformation and the private sector and the studies are mostly quantitative. Prior research has focused on artificial intelligence and management. Through DT, leaders unlock new market segments, grow faster and increase their profit margins over their competitors (Sainger, G., 2018). Organizations are innovating and leveraging the latest technologies simply to stay in the business world. Interestingly, the private sector includes e-Invoice, e-Archive, and e-Ledge providing innovative ideas and habits introduced by e-Transformation that will triple by 2020. Additionally, Big Data Companies are working quickly to their processes and seize

TANMIYAT AL-RAFIDAIN (P-ISSN: 1609-591X; E-ISSN: 2664-276X) تنمية الرافدين

212

pp. (210-231) مج (43) Vol، ع (144) .No، كانون أول Dec. 2024، ص. (210-231) .pp

opportunities for DT; to understand their current processes to make use of technologies like the Internet of Things, and Artificial Intelligence.

This analysis is entirely based on the framework development of "Images of Organization" by Gareth Morgan, which supports the analysis of a business using metaphors.

In view of the author's backgrounds in business and finance, and their practical experience of previously working in companies, the chosen research topic allowed the authors to apply their existing experiences. Therefore, this thesis aims to analyze the challenges and successes associated with the Digital Transformation in the private sector. A qualitative approach was implemented in conducting desk research using various business and scientific data sources. The research findings have significant implications for DT. To do so, we conduct semi-structured reflective interviewing with 10 small business owners in a private sector. Afterwards, we will write our methodology and analysis section, and in the next section present our results and answer the research questions. We finish the article by pointing out the recommendations for future research.

Literature Review
Previous studies on Digital transformation

A number of organizations are enabling themselves through Digital Transformation to resuscitate the private sectors through change. This deviation towards digital transformation is necessary and is increasing in speed. Throughout the development of innovative strategies and the models in which they operate, advancements in digital platform technology have helped modernize all business areas, driving companies toward positive digital partnerships and growth. It is worth mentioning that if the principles cannot be implemented consistently, or if they inadvertently create an environment that is untenable, the end result will be confusion and conflict.

According to Frank Vivier (2017), a group chief transformation officer of Richemont Group, luxury is one of the last industries to be hit by the digital tsunami. However, he argues that change is happening much faster than companies can react to. In the aforementioned research, Tornikoski and his colleagues (2017) argued that there is an advantage of 107 young private Finnish firms because there is the need for technological competencies and managerial capacities (as cited in Linton, J.D., & Solomon, G.T., 2017) . Similarly, Alderete (2017) examined the link of technologies in 59 countries and found out that there is an innovation (as cited in Linton, J.D., & Solomon, G.T., 2017) because private sector firms play as a support role in most of the organizational initiatives.

Therefore, managers need to have a vision for IT, discuss strategies, scan new technologies and govern IT to provide desirable outcomes (Mithas & McFarlan, 2007). As cited in Gallivan (1999), the organizational culture may be malleable but not controllable (Gallivan 1999). Therefore, to maintain a successful private sector, there must be an implementation of strategy and the importance of technology/culture fit. Organizations need to find and develop digital champions and to have skills such

as agility, the ability to learn, the ability to create digital business models, curiosity, drive to succeed, coaching mindset, and a mental endurance in order to succeed in DT.

Artificial Intelligence through DT

New age technologies such as AI have the potential of transforming the industries. While the results of these technologies are overwhelming, the cybersecurity threats are also prevailing. Hence, AI takes time for an economy to incorporate and make use of new complex technologies.

According to Paganini (2017), AI can use the resources from a computer to scan network log files quickly and detect if there are any potential threats. In particular, Mars rover can travel across the landscape of Mars, explores it and determines the right paths to take without using humans. It can also lead to potential success such as demand forecasting, medical diagnosis and oil exploration. In an aforementioned research, Markus (1997) believed that both line managers and IT specialists must give up their belief in the magical power of IT to successfully implement change. However, the hard reality of IT-enabled transformation is change is everyone's job.

Advantages & Disadvantages of DT

Digital transformation is about using digital technology to solve issues using traditional methods (Saul, C.J. &, Gebauer, H. (2018). There are several advances to DT such as optimizing the customer experience for new revenue resources, enabling secure access to all of the country e-services and a large number of private sector e-service, saving time and money as well as enhancing administrative processes and it up skills existing tech employees. However, there are numerous disadvantages such as digitizing the organization's operating model, being wide in scope and people rather than tech problems, being resistant to change, presence of security threats such as cybersecurity, lack of clarity, lack of digital literacy (Rayome, A.D., 2017), and lack of key digital skills and reduced sample size (Fenech, Baguant, & Ivanov, 2019) . Therefore, DT requires cultural and behavioral changes because it should be working in new ways and giving employees a say on where digitization could and should be adopted. To be successful in an organization, employees should adopt digital tools to make information more accessible, implement digital self-serve technologies to create success, and modify their standard operating procedures to include new technologies. To create a successful plan for DT (b2bmarketing.net), private sectors, establish a business value framework, map out one's strategy, and follow one's roadmap.

Conceptual Framework: Metaphors of Digital Transformation

Kavadia et al. (2016) suggested that there are six keys to success framework connecting technologies and markets. Having a more personalized product, a closed-loop process, asset sharing, usage-based pricing, collaborative ecosystem, an agile and adaptive organization are the six keys providing innovation success for any private sector. Then framework is essential because it includes important organizational structure and interests. Another similar framework is the digital transformation framework by Matt et al., (2015) that combines coordination, prioritization and implementation because DT in the private sector is important. Most of the ideas about

organization are based on a specific number of metaphors, and this is due to the fact that we want most of our organizational techniques to stay absolute within these metaphors. Gareth Morgan is a British/Canadian organizational theorist and management consultant who wrote several books such as Sociological paradigms and organizational analysis (1979), strategies for social research (1983), Images of organization (1986), riding the waves of change (1988), imagination (1993). Nevertheless, Morgan is known as the creator of the organizational metaphor concept and the 1986 best seller Images of Organization book "Images of Organization" the existence of eight metaphors: Organic, Culture, Brains, Mechanism, Political Systems, Flux and Transformation, Psychic Prisons, and Instruments of Domination. However, in this paper we will be mentioning four out of eight metaphors. In this study, mechanism, organic, culture, and brains metaphors were carefully chosen to focus on the fact that the organizations are designed to produce something employees can identify with, and at the same time feel as if they're a part of the culture. Other metaphors such as psychic prison (people in the organization which is similar to the culture metaphor) and instrument of domination (the profiteering of power play between people in the organization which is similar to organic metaphor) won't be discussed because it will be repetitive. These organizations present, collect, and process information.

Metaphors make sense of organizational structure, leadership style, management control, and behaviour; act towards achieving a more transparent, accountable and democratic organization (Itkin & Nagy, 2014); and operate like powerful paradigm that have associated values. Moreover, the metaphors provide a meaningful way to communicate what the employees experience to achieve the desired goals and provide an image for studying a topic (Itkin et al., 2014). Each one of these metaphors help shine a light on the role digital transformation plays in providing and maintaining a motivated mentality for each and every one of the employees in the private sector, or as it is referred to as "Private Companies".

Culture Metaphor

According to Morgan, culture metaphor is about how private sector organizations looks at new beliefs, ideas and values to shape the business. According to LNS research, the people, groups, and engagement is linked with change management. Therefore, there must be teamwork between developers and implementers so organizations should figure out solutions, make decisions, evaluate and reward the system specialist to encourage new projects. Changing culture requires change at the beliefs level, which is often substantially more difficult to achieve than changing business processes or information systems. To complicate matters, there may be an overall company culture and sub-cultures across groups that can sometimes be in conflict. Beyond demographic and geographic differences, the attitude towards information sharing is subject to continuous challenges in the digital space. This is evident because there is a large access to information which not only feeds the concerns about personal privacy, but can also promote more democratic access to knowledge and information resources (Rizzo et al., 2017). Therefore, creating an

effective digital strategy is critical but so is fostering a receptive corporate and private sector culture that is open to innovation and supportive of the new strategy. The organizational structure of a private sector can be a determining factor to facilitate the flexibility and responsiveness that is required in order to achieve the level of motivation aspired to each and every employee. Due to this, a trend of transition can be observed from a traditional and hierarchical structure, towards more recent, horizontal organizational structures.

Professor Hofstede, G (n.d.). analyzed how values in the workplace are deeply touched by culture and created a model of national culture that consists of six dimensions; power distance index (PDI), individualism versus collectivism (IDV), masculinity versus femininity (MAS), uncertainty avoidance index (UAI), long term orientation versus short term orientation, and indulgence versus restraint (IND). According to Jeff Mike (2018), Digital HR should align culture, talent, structure, and processes to balance efficiency and innovation and to recruit top talent, identify and develop rising stars and retain the employees that can best support the company's growth initiatives. When HR professionals do not find the 'why' and the 'what' of the DT to the employees then it may contribute to a negative outcome.

Additionally, organizations need to either borrow (creating partnerships), buy (purchasing consulting expertise), or build talent to do well. Furthermore, van Driel (2018) stipulates that is important for an organization to have an effective operational culture. People are at the pinnacle of any major organizational change, whether it's technology-driven or not.

Mechanism Metaphor

Mechanism metaphor is about re-defining big parts of the business, and IT is essential in doing it to transform the private sector. The 21st century has become a digitalized world because knowledge and information is available. Hence, different digital media platforms, and technologies exist in the society making it organized and interactive. The Director General in the private sector should have a strategic mindset when it comes to being an effective IT champion. Looking at IT from an offensive standpoint, an investment in future value or innovation, and from a defensive posture, makes it clear that the organization investing in technology needs to remain competitive. For example, in the aforementioned research (Samuels, M., 2018) a survey of 460 executives by IT analyst Gartner, 62 % claimed there was a transformation initiative to make their business more digital. Moreover, 54% stated that digital business objective is transformational, while 46 % believe that their aim is to optimize DT.

While on one hand digital transformation has been promoting the development of a technology infrastructure for interaction with the user and the digital partner. This also requires a thorough modernization of legacy systems and applications. The bimodal approach focuses on the efficiency, security, and reliability on the part of the traditional core of the private sector information system. This approach also requires a strong synergy between IT, business, and the consequent reorganization of the

traditional organizational model based on a clear distinction of roles between demand and the CIO. (Rizzo et al., 2017). It is critical that IT and finance work closely on process and change management. That is IT and business teamwork cooperate with each other with its vision of the business strategies, analyses the context, makes appropriate assessments and takes the relevant decisions (Resca, Za, Spagnoletti, P (2013). In any case, shared understanding between IT and the private sector is critical to success. By 2020, digital will transform Lebanon's private sector through employees, leadership, and increasing income by adding IT business, digital communication services and skills. Therefore, Lebanon has speeded up the digitization of the society but will have plenty of room to grow such as in leadership, and management. Therefore, it is taken for granted that without a complete redesign of information technology infrastructure, the establishment of clear internal and external communication channels that allow for clear flow of information and the development of outreach activities would not have been possible at Lebanese Private sectors. To recognize these limitations, leaders should leverage the private sectors sector's wide collaboration platforms and e-learning techniques to encourage wider engagement through extensive communication of digital initiatives.

Organic Metaphor

Organizational change in digital transformation is fundamentally about change which requires leadership because it is all about changes rather than stability (Jurisch, Ikas, Wolf, & Krcmar, 2013). The private sector in Lebanon must change its organizational structure with time to include leadership and attention with the managers and employees. First, there should be a change in internal structure in companies, second there should a change in national level, and third there should be acquisition activities. According to Kane and Nguyen-Phillips (2017), an omnichannel retailer, Shamim Mohammad (n.d.) claimed that our DT isn't solely driven by IT, or marketing, or product. Instead it is driven by CarMax strategy that requires all parts of the business to collaborate together to deliver an easier customer experience. The successful transformation of an organization in this digital era largely depends on how leaders of that organization accept and infuse work culture where digital technology is used as a tool for synthesizing information in real time rather than being solely dependent on technology. SAP in its early years was the rock band because employees were lost and didn't have a leader and then throughout the years it became a sports team because it had a head coach as well as a leader that determined the direction (Itkin et al., 2014).

Jobs of the future will be more skill-intensive because digital literacy will be introduced so employees as well as leaders will need to learn and relearn their skills throughout their lifetime (Kaka et al., 2019). Lebanon will need to create affordable and effective education by developing training programs at scale midcareer workers. Top-performing firms see going digital as an opportunity to reinvent core processes, and put customers at the center of everything. Therefore, digital technologies can fundamentally change the way Lebanese business work internally and how they interact with customers and their suppliers because they enable easier collaboration.

Moreover, digital technologies provide leaders with the tools they need to analyze the data to create insight to improve their decision making.

It is crystal clear that the information has become a source of power that is considered a competitive advantage for the private sector especially with the continuously changing internal and external environments. To facilitate the restructuring of daily routine processes and procedures, private sector has provided several facilities to establish a Wide Area Network (WAN) to connect the various departments and units. The establishment of clear internal and external communication channels that allow for clear flow of information and the development of outreach activities would not have been possible at Lebanese private sector without a complete redesign of information technology infrastructure.

Brain Metaphor

In order to be successful, organizations need to be ready for accelerating evolutions, higher business agility and the increasing role of all forms of data and information. Therefore, the goal is for private sectors to ensure the feasibility of innovation model, via creative problem-solving processes, the principles of organizational development management to provide guidance to change management recent research provides strong evidence that practicing non-judgmental, present moment awareness such as mindfulness changes the brain. It does so in ways that anyone working in today's complex business environment, and certainly every leader, should know about. In the aforementioned study, John Kotter, Emeritus Professor of Leadership at Harvard Business School reported, "leadership about knows what to do, management is about knowing how to do it". In other words, management is a largely left-brained discipline associated with tasks such as planning, controlling, and putting appropriate structures and systems in place. Rapid digitization has resulted in the production of large-scale data, and that data is oxygen for training deep learning systems. Additionally, true creation happens when there is convergence of brainpower and computing power.

According to Gibson (2019), the technology fallacy identifies 23 traits making up an organization digital DNA which is similar to a human DNA. Gibson reports (2019) that leaders must know whether the traits become weak if they don't evolve on a certain pace with changing time. Therefore, Gibson (2019) believed higher level leaders are more optimistic about how their organization is changing to disruption.

Another aspiration is to have increased learning from employees and organizational experiences. The advantages of brain metaphor include the ability to self-regulate, adapt and develop. However, self-referencing is a limitation (Itkin et al., 2014). Migliore & Hubbard (2016) exclaimed that leaders in the private sector need to turn on the whole-brain creativity for digital thinking and be willing to scrutinize to be able to ask the right questions to use data and crate new patterns. Migliore and his colleague (2016) stated that in order to have improved accuracies in the results, leaders need to grasp the concept of how to be a strong human- in-the-loop. Therefore, the present research study requires collaboration as Ham-mond et al., (2006) claimed because brains are always active for decision making. Many organizations in the

healthcare, business, and law have introduced mindfulness training to their employees in their attempt to bring well-being and decrease stress, develop creativity and problem-solving skills, improve relationships among team members, and generate more productivity, alignment, and agility. Along, the lines, Garcia (n.d.). Vice President of global development for the Aden Education Group stated that employees develop creativity, collaboration, and system thinking. Regarding employee performance and mindfulness, there has been higher productivity, less absenteeism, better team spirit and more work spirit. Moreover, mindfulness along with organization open outcomes provides agility, innovation, execution capabilities, ethics and compliance, and sustainability.

Fascinatingly, mindful leadership in organization provides positive culture, energizing environment, highly effective managers, strong working relationship, job satisfaction, and healthy lifestyle (Matta, 2019).

RESEARCH METHOD
Data Collection Method

As part of the research study conducted, a qualitative research procedure was considered. The first step was to collect data (relevant literature). Data collection required an extensive search for the appropriate sources to apply in this research. Data for this research were collected from numerous sources such as academic and research articles, and information from the private sector. In the process of collecting academic and research articles, initial google scholar was utilized such as The Business Process Management Journal and Social Enterprise Journal (Edirisinghe, 2019). Research conducted in regards to the research topic retrieved a huge number of hits due to wide topics that is relevant to DT and the private sector (Shwetzer, Maritz, and Nguyen, 2019). In order to study the five private firms of digital transformation, numerous techniques in data collection were used in this research.

Primary data consisted of interviews with the managers of the private sector firms who were CEOs and middle-class level. The first interviews were selected with the CEOs in order to generate an understanding of the private sector. Interviewed CEOs were selected for their extensive experience. After interviewing the CEOs, interviews with middle class level employers were conducted. In these interviews, there was more focus on the digital transformation of the company. Data recording could not be done because some of the language may potentially be misinterpreted during the interview and translation of the data transcript. The main themes that were derived from DT included changes and technology. Online research reveals that DT is a global phenomenon (Shwetzer et al., 2019); and on that basis, it was decided that it would be a valuable topic to conduct a study on. The key terms and phrases which were researched were : advantages of private sector, metaphors, digital transformation, advantages of digital tools, leadership, and e-commerce.

Since the national language of Lebanon is Arabic, some interviewees preferred to have the interview conducted in Arabic. Consequently, the interviews were translated and transcribed into English. The researcher decided to follow an abductive approach that is contacting private firms to increase innovation of DT.

TANMIYAT AL-RAFIDAIN (P-ISSN: 1609-591X; E-ISSN: 2664-276X) تنمية الرافدين

219 | **pp. (210-231) ص، Dec. 2024 كانون أول No. (144) ع، Vol (43) مج**

The aim of this study was to gain a deeper understanding of the challenges related to DT . To do this, a semi-structured interview was conducted with 10 employees (aged 25-60 were to be interviewed for the study) from the Lebanese private sector and no more than then in order to avoid the study becoming redundant. The participants were all similar with each other (they worked in the private sector). It was fundamental to look at their age and gender. Moreover, all participants were interested in partaking in this study.

 Next, the researcher managed the data from the interview and then conducted thematic analysis (TA) to familiarize and code. For example, the researcher will analyze the evolution of the concept of DT and its components as well as to identify the positive attributes such as consistency, sustainability, flexibility, and innovation. When the researcher coded, the next step is to seek and define the themes, then represent it through an account by illustrating participants' quotes and then report it in the results and discussion phase while formulating the conclusions (Jablonski, 2019).

From the data and content collected within the literature review and the interview with the CEOs and middle class managers, several questions emerged during the semi-structured interviews and to provide some of the data collected about the digitalization and technology. Notes were taken with the intention of analyzing the answers and relating them with previous studies regarding digital transformation and the metaphors. Figure 9 highlights the development stages this research process took over a 9-month period from May till October 2023, from data collection and interviews at firms until data analysis was conducted.

Sampling Method

It is impossible to fully study digital transformation, especially in the scope of the single thesis. Based on that, the specific research problem that will be addressed revolves around the challenges of digital transformation. In order to address the research problem in regards to digital transformation, this dissertation was designed around the following question: what are the challenges in which revolve around DT?

Since DT is seldom studied, an action research study is required to understand this phenomenon better. Because of this, qualitative research methods can be used to answer the research question presented in chapter one. In order for the researcher to gain a better understanding in DT within the Lebanese private sector, semi-structured qualitative interviews were conducted.

This action research dissertation utilized a qualitative approach to investigate how employees live in a world with digital transformation passively through the four metaphors proposed by Gareth Morgan. DT can be discovered within quantitative studies, but statistics and data are not relevant for this research. . The study began with interviews within the private sector organizations in order to cultivate valuable insights about digital transformation among the employees (Hofmann and Ogonek, 2018). In total, ten interviews were conducted with the help of semi-structured interviews of several industries such as investment and import and export for dentistry. 3.5 Mission

The private sectors (P, S, T, X, and Y) has put all their efforts into digital transformation. These private sectors allow participants to have experience in the latest digital technologies. The mission is to offer participants the latest knowledge regarding what is happening digitally. Also, it is essential to include humans and talent in the private sectors because it would improve build rapport with customers and coworkers in different departments.

3.6 Vision

Since DT is present, the 5 private sectors (P, S, T, X, and Y) aims to:
- Be one of the top leading digital in the domain of dental, technologies, interviews goods and services
- Increase digitalization in other Lebanese private sectors
- Have a digitally learning environment to increase communication and engagement between CEO's and middle class managers

Data Analysis

The transcribed interviews were collected through ATLAS TI. There was a positive correlation found between the participants behavior, the metaphors and Lebanese private sectors which are mentioned throughout the research proposition. After the semi-structured interview, the data was transcribed from audio files into digital notes. Interview transcripts were analyzed using open coding; specifically, the codes were created and randomly named. Coding is considered to be data processing. The key concepts in the data are identified in ATLAS TI. Data was coded in a color of every group. And Ideas are analyzed with the categories. The codes can be created from the previous knowledge of the topic studied (which is DT). Codes should be limited so that the researcher can derive simple topics from the results-. Simple topics is important in this qualitative research because it creates rich insights. For transcription of results, different colors were used for different key concepts. For example, change was coded as blue whereas technology was coded as green. In this study, the researcher followed the thematic analysis method. In this instance most of data was collected through semi-structured interview with the participants.

Thematic analysis consists of the following six steps:
- The first step was to develop familiarity with the data. The researcher read the data over and over again to understand the content.
- The second step was to code. The researcher created codes that are important to the research question.
- The third step is to create an initial theme. In this step, the researcher examines the codes to create broader patterns of potential themes.
- The fourth step is to review the current themes. The researcher checked the themes and determined whether those themes are relevant to the research question. The researcher also tried to refine some theme having some themes removed and some themes combined.
- The fifth step is to define and name the themes. The researcher developed a detailed analysis of each themes and decided on an informative name for each theme.

- The last step is writing up the results. The researcher weaved together the narrative and looked at whether it is similar to the existing literature.
   The following questions were established:
• Which major themes emerged?
• What do we learn from the phenomenon of DT?
• Based on the participants, what are the opinions of the participants regarding the challenges of DT?

   The themes used in the interview guides related to culture, mechanism, organic and brain metaphor were used to categorize the codes. All the data that was collected from the semi-structured interviews has been chosen below the previously prepared questions.

• Introductory and Transition Questions:
• How do organizational norms support the changing conditions within and outside the organizations? Most of the participants claimed that change is essential for the private sectors in order to successfully transform.
• In your opinion, has the organization had a large influence in the past or present and why?
Over here, a large majority of the participants believed that Lebanese private sectors played an important role in the present because of the presence of technologies.
• How are rewards distributed within the organization?
Some participants mentioned that there are no rewards in their private sectors.
• Why do you think organizations should operate in a rational manner?
Some participants were not aware that their organization is operating in a correct manner.
• Why should organizations focus on improving the quality of the products or services it produces?
Most of the participants pointed out that private sectors have to improve the quality of their products and services in order to successfully transform.
• Do you think stability is an important element within an organization?
Almost all of the participants stated that there should not be rigidity in the private sectors, otherwise it would regress and eventually shut down.
• Why must organizations interact freely with their environments?
Most of the participants argued that there must be collaboration within the CEO and middle class managers in order to successfully evolve. If collaboration was not present, then there would be arguments, and the company will close down.
• Why must organizations evolve, adapt, and change if they are to survive?
Participants believed that Lebanese private sectors must evolve and change in order to see a successful transformation.
• Do you think change is a process which can be influenced or controlled?
Interestingly, participants argued that change is a process that can be influenced from colleagues in the workplace.
• Why do employees and organizations learn from experiences?
Participants argued that learning experience is crucial for the transformation.
• Why do employees perform better given the required information?

This is the same question as the previous, participants mentioned that if there was no information and no learning experience than the organizations would go backwards and shut down.

All the data that was collected was derived from the participant's discussions.

DISCUSSION
Themes

Following the semi-structured interviews with the participants from five companies, the significant themes in this dissertation revolve around change and technologies. The private sector's key themes for DT (which are change and technology) has an impact across different types of participants. In regards to the theme of change, it is evident that some participants mentioned that the private sectors are facing a great wave of change that cannot be stopped and is always continuing to change. It is important to note that Lebanese private sectors are currently transforming at a fast pace. Participants mentioned that there are some challenges that are slowing down the change in culture, mechanism (strategy), organic (leadership) and the brain metaphors that are out of step for an advanced citizen-centric era. Therefore, an inclusive society should be present and consist of collaboration between the CEO and middle-class managers. Another solution that participants pointed out is to shape the digital future because the landscape itself is quickly evolving. Also, to successfully change the private sectors, CEO's and middle-class managers have to re-imagine their quality and services, and continually innovate how they interact with their customers.

One of participants argued that "what separates digital leaders from the rest is a clear digital strategy with a culture and leadership for a transformation to happen". This should not be surprising because technology is advancing at a steady pace. An example that the participant gave is that his organization currently focuses on technologies. This supports the culture metaphor in that there should be strategy which integrates both culture and leadership so that changes can occur.

Moreover, participants also pointed out that the success of the organization depends on the employee's ability to understand the strategy. It is the core of the success. Once understood, changes can occur. Participants such as Celine, James, and Thomas argued that change in the private sector is a result of strategy which is affected by culture. Also, a manager of digital transformation said that skills in the workforce is one of challenges regarding digital change. Surprisingly, he pointed out that culture is indeed a struggled when it comes to changes

Results

The results offered valuable insight about the private sector's use of new digital technologies. Some participants argued that they use digital technology either moderately or instantaneously. On the other hand, other participants claimed that they are pressured as a result of the implementation of digital technologies because they are stressed with widespread changes that may occur in the private sector. many participants from investment T argued that integrating new technologies within the company's model is essential for rewards because it focuses on change at a higher

level, which is crucial for the mechanism metaphor. In addition, most of the participants in all the investments reasoned that there should be changes in the company because it is within the culture metaphor and organic metaphor to include changes regarding IT and human resources (HR). Therefore, these changes must be included because, without them, the private sector will not be digitized and thus the growth of institutions will not occur. Therefore, there should be changes in IT and people should be included for organizations to successfully grow (culture and organic metaphor. These results have significant implications for practical research because it first brings empirical support to the view of new digital technologies such as the big data, internet of things (IOT), and the AI as resources to improve the private sector. Regarding the last question, all the participants in all of the investments argued that there should be a well thought of clear vision to encourage successful changes. Therefore, this study supports the view that digital technology and strategy are related as a whole business unit rather than being considered as separate elements that need to be well adjusted with the private firms (Bughin, Kretschmer, van Zeebroeck, 2019).

CONCLUSION

In the era of digital transformation, leaders unlock the digital effect by developing a digital platform based on business models, strategies, and filling the workforce skill gap. The researcher applied the use of the four metaphors (culture, organic, mechanic, and brain) mentioned in the introduction and literature review as a management and leadership technique and as a guide to move forward. DT is still a global phenomenon around the world because it offers advantages such as flexibility, being rapid, being able to have a voice, and collaborative (Gerhard and Phillips, 2018). It is important to take into consideration the importance of improving the management of the private sector in terms of stimulating better experiences (Martinez, 2019). To successfully transform the private sector in Beirut, CEOs and managers should avoid overloading themselves with information and instead provide incentives.

This research study explains that DT in the Lebanese private sector is continuously changing due to technologies, AI, cybersecurity, e-business, and e-commerce. The Lebanese private sector should collaborate with every member to implement successful changes. This research inquiries about the challenges and successes associated with the digital transformation in the private sector and scrutinizes how private sector firms are using metaphors through DT as well as the challenges that need to be addressed (Laing and Royle, 2014). The present study reveals the impact of DT via four metaphors in the private sector in Lebanon. First, the culture metaphor change is more likely to happen when the vision of a better future outweighs the emotional, personal, and financial cost of the change. Second, the mechanism metaphor recognizes some forms of authority to motivate, plan, lead, and control the managers to implement policies effectively and efficiently. Third, organic metaphor reveals that building workplaces attracts digital talent and creates policies that support knowledge-sharing tools (van Zyl, Mathafena, and Ras, 2017). Finally, the last metaphor, the brain, promotes employees into leadership more quickly by giving them opportunities to learn on the job and fosters risk-taking and

experimentation by creating programs that focus on new product and service innovations.

Compare/ Contrast past versus present DT

In the past, there were some challenges as a result of DT such as having a low number of digital champions, lack of technologies, lack of competent workforce, lack of trust in DT (mechanism and organic metaphor), and being resistant to change. DT used to be tough and frequently fail because the private sectors did not have the deep analytical skills and did not have the ability to transform easily. Moreover, the larger private sectors in the past did not have to move as quickly as smaller Lebanese private sector. Also, private sectors were experiencing a shift in technologies (Henriette, Feki, & Boughzala, 2015). The era of digital transformation offers Lebanese private sectors, the unique opportunity to implement new technologies to move services online, which will help them to be successful and remain competitive (Nagy, 2018). This in turn created changes in the workplace between CEOs and middle class manager (mechanism metaphor). When these changes happen in the past, there might some negative impact in the workforce because private sectors keep on changing and CEOs and middle class managers gain new skills Also, Lebanese private sectors have started to embrace DT, need to understand that it will bring more opportunities such as increased jobs, increased efficiencies as well as empowerment (Negreiro, & Madiega, 2019). To tackle these challenges, Lebanese private sectors need to take a systematic approach that starts with internal approval and ends with a long-term outlook.

Currently, Lebanese private sectors will encounter uncertainties which are deep and digitally driven. These challenges are technological wise, organizational structure, limited budget, lack of overall digital strategy, as well as lack of expertise (culture and organic metaphor). To make it great for Lebanese private sectors, it is essential to take these digital transformations as a leap forward rather than being backwards. This leap forward, will make digital transformation in Lebanon great as it implies deep structural changes, structuring strategies, changing patterns of human behavior as well as shifting mental maps and norms (brain metaphor).

Moreover, in this present world, digital technology is increasing as most participants believed there are rapid changes in new customer markets, new processes and new capabilities. Also, since DT is rapid, it has transformed the Lebanese private sectors, making it desirable because it opens new opportunities reaching customers (culture metaphor) as well as threats for the Lebanese private sectors (Haffke, Kalgovas, & Benlian, 2016).

Since, it is difficult to change a complete culture, some participants stated that it is essential to instill a digital culture in the present world requiring teams to collaborate and change the technology to reduce some roles and to undergo new activities. In order for the Lebanese private sectors to transform and keep on improving, new CEOs and middle class managers should be hired. Private sectors nowadays must have the right culture, technicians in the IT departments so it can be a good digital future and trained people to improve the existing systems in the departments (organic metaphor).

TANMIYAT AL-RAFIDAIN (P-ISSN: 1609-591X; E-ISSN: 2664-276X) تنمية الرافدين

225 | **pp. (210-231) .ص ،Dec. 2024 كانون أول ،No. (144) ع ،Vol (43) مج**

CEO's in today's Lebanese private sectors must reduce customer's fears and put DT in a forward pace to deliver excellence.

In order to move forward, Lebanese private sectors need to implements adequate leadership roles in order to adopt an innovative culture as well as the right infrastructure to build AI, big data, cyber security, and multicloud because it will provide answers to the uncertainties that are faced (mechanism metaphor). Also, these technologies are becoming more potent and changing the private sectors much faster than it used to be in the past (Dermirkan, Spohrer, & Welser, 2016). Lebanese private sectors need to step up to make sure they have the infrastructure in place to tackle the challenges. In addition, the physical presence of humans (leaders) are crucial in the Lebanese private sectors because they create success, innovation as well as talent in DT. These leaders also create change to keep the private sectors running, and create the most diverse teams. This in turn would create adaptiveness, and effective teaming. Therefore, digital transformation in Lebanon is still developing, so the private sectors need to implement an active environment

In order for the Lebanese private sector to focus on digitization, they must take the right DT roadmap, that is having the right balance between technology and people (mechanism and organic metaphor) to keep up the workforce by creating new skills (Haffke et al., 2016). There are developments in technology that potentially distort our senses and reality which then results in digital transformation which is an advantage across diverse organizations. Interestingly, DT transforms the reality of atoms which are the processes and organizations becoming a digital reality (brain metaphor). It is creating a new product (new organization) and defining the organization itself.

Due to DT, employee-working hours are more flexible, and many organizations are allowing employees to work from home. In addition, the presence of AI is shaping the whole Lebanese private sectors due to the presence of technologies. Nowadays, it is a necessity to include disruption in order to innovate in the private firms. In the future, when DT is in the private sector, there is a chance that it will be developed (Legesse, Hardini, Panjaitan, & Kurniawan, 2018). DT is essential part for human life and is needed in all the Lebanese private sectors for innovation and growth (culture metaphor). Innovation is essential to Lebanon's future opportunity as Lebanon is part of a global innovation race. Therefore, Lebanese private sectors have to step up the pace in order to not be left out from other countries around the world (Bharadwaj, El Sawy, Pavlou, & Venkatraman, 2013) Regardless of innovation, it is of utmost importance to include individuals who can establish the organizations (Bharadwaj et al., 2013).

Recommendations

In order to maintain DT in the Lebanese private sector using the four metaphors is necessary. it is important for the private firms to determine which metaphors and innovation practices would ensure the growth. Thus far, the private sector wants to improve efficiency but is it enough? What should the role of private sector be these days?

The private sector should start by exploring every opportunity to use digitalization to advance the models and to re-create the ecosystem. Additionally, several key elements can raise awareness of the complex change within the private sector. These include maintaining critical awareness of the digital tools within the private firm, using standards for sharing, and sharing good practices for better collaboration.

The key recommendations to address the identified digital transformation in the Lebanese private sector include going out into geographical areas in Lebanon and integrating mechanisms such as meetings and anonymous cards to get feedback from employee to keep it transparent. Reevaluating the distribution of tasks so that employees will not experience long working hours, decreasing employee anxiety level and working hours to enhance their performance, and working together as a team by providing a supportive environment are few of the recommendations for improvement. Other recommendations include increasing transparency by encouraging employees in the private sector to speak and resolve their tensions in a supportive setting, increasing learning in customer relations, as well as training programs and to keep up to date by considering the latest advantages in the private sector. Other future recommendation to accomplish DT in the Lebanese private sector is to define digital strategy, investigate digital tools, and invest in training. In order for the Lebanese private sector to move forward and be digital, it is essential to create a single DT strategy that is connected, create programs to reskill middle class managers for higher-value roles, develop an organization that is open to change and improve learning, and adopting new and AI technologies like digital assistants to engage customers in the medium they expect. Future investigation is encouraged to provide a longitudinal perspective of how DT transforms the Lebanese private sector.

Limitations

The researcher presented findings from ten participants (CEOs and managers) in 5 Lebanese private sectors to gain a deeper understanding on digital transformation which comes with several limitations. The first limitation is that the interviewees might not be specialists on digital transformation. Another limitation is that the researcher conducted ten interviews in the Lebanese private sector. The third limitation is the researcher conducting qualitative research because it is a difficult activity as Wang (2013) stated as it leads to uncertainties, lack of strong claim, lack of interpretation, not repeatable, and not being able to generalize. It is essential to take into consideration the fact that developing a vision and strategy, ensuring top-management support and commitment, building external support; anchoring new approaches in culture; and pursuing comprehensive change are other limitations of this study. Furthermore, the aspects (the four mentioned metaphors) in this dissertation need to be further investigated and delved into in detail.

Future Research

To strengthen the research, the private sector in Lebanon can investigate the involvement of data actors and how it shapes DT and the societies. To overcome the challenges in DT, the Lebanese private sector must include some solutions such as

collaboration, increasing speed, and improving knowledge sharing (Hicks, 2019). This will require a change of current organizations and data actors can be involved in regulation.

Moreover, to create a new design, Lebanese private sector firms need to have meaning-full dialogue with data science teams and other key stakeholders. Digital transformation is considered as an advantage for reducing costs because people are important rather than technology. In the future, the private sector will need focus on the needs of users, how can these needs be optimized for mobility, and provide targeted interventions.

Private firms need to improve the timing and intensity to benefit the Lebanese population so that it will not be stable (Suarez and Oliva, 2005). Therefore, firms need to incorporate innovative technologies to realize real life business values. In order to strengthen the study, Lebanon must use digital footprint and a digital ecosystem in order to flourish the private sector on one hand. On the other hand, the focus of implementation towards the technical aspect rather than the human aspect of the project leads to failure. Therefore, more research is needed on how behavior changes is connected to digital transformation.

To improve the methodology of the present study, the double-diamond method should be implemented instead of quantitative or qualitative studies because it is a design process for solving real-world problems. The double-diamond method is a methodology to engage managers and CEOs in the Lebanese private sector to determine the real-world problem through an experimental way of thinking and being able to find major solutions.

Moreover, there should be an implementation of transformation application, reducing corruption, and an increase in e-participation (Wong and Suan, 2015). Transformational technology shapes the digital transformation for the employees in the private sector firms because it eases up the gratification that the participants asks and leads to a new level of operational excellence.

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Appendix E- Interview Questions

Reflecting this background framework, the study addressed eleven questions, exploring the complex issues of change, change management, and leadership in the digital transformation for employees within the private sector, to provide information that is relevant to those needs:

Culture Metaphor

1) How do organizational norms support to changing conditions within and outside the organizations?
2) In your opinion, did the organization had large influence in the past or present? Why?
3) How are celebrations used within the organization?

Mechanism Metaphor

4) Why do you think organizations should operate in a rational manner?
5) Why should organizations focus on improving the quality of the products or services it produces?
6) Do you think stability is most important to organizations?

Organic Metaphor

7) Why must organizations interact freely with their environments?
8) Why organizations must evolve, adapt, and change if they are to survive?
9) Do you think change is a process that can be influenced or controlled?
    Brain Metaphor:
10) Why do employees and organizations learn from experiences?
11) Why do employees perform better given the required information?

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231 | **pp. (210-231) .ص ،Dec. 2024 كانون أول No. (144) .ع ،Vol (43) مج**