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The Impact of Technological Transformation on the Realm of Modern Business Management

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Abstract. This research study aimed to explore the ever-changing world of management, documenting the significant influence of the ‘Technological Transformation’ (Also referred to as ‘Digital Transformation’) witnessed by the present era. The study carried out a thorough review of the advantages and difficulties that accompanied this unprecedented transformation. Moreover, this study highlighted the practical influence of technology across a vast spectrum of enterprises and sectors using a wide range of studies from the relevant literature. Over and above, this qualitative study implemented the ‘Integrative Research Approach’ (IRA) for the sake of obtaining data from the targeted population, analyzing the collected data, and extracting the findings concerned. Supplementarily, the study found that the process of technological transformation involves not just automating operations but also changing businesses’ models, customer expectations, and the processes themselves. Likewise, it was found that digital businesses produce value and create an accelerating revenue by means of extensive digital linkages between people, locations, systems, and objects. Conjointly, the study revealed that the majority of contemporary organization, Organizations, regardless of their areas of competence and work, may leverage digital technologies and strategy to establish a successful position for both themselves and their industrial sector/s. as a matter of fact, the current study emphasized that the next phase in the growth of the national and international economies is the potential that digital/technological transformation unlocks. Finally, the study’s findings asserted that the society that will live in a completely altered environment is transformed by the integration of all developing technologies. Production of goods, corporate operations, and organizational leadership are shifting toward a heavy reliance on new technologies, supporting applied Information Technology (IT) techniques (software, hardware, and procedures), and expanding digital communication channels. On the same line, the study concluded that in order to maintain the stability and strength of our societies, we must continuously examine, evaluate, and develop this new, highly complex reality that the digital transformation has formed. Finally, it is hoped that the previously mentioned findings would assist organizations of different fields of work in making successful, reliable, and accurate decisions. Similarly, it is also hoped that the revealed findings would pave the way for the organizations of interest to create and further implement innovative, actionable, purpose-filled, Long-term and forward-focused, consistent, concrete, inclusive, and well-informed strategies which would eventually enable them to act as a compass in the nowadays’ complex landscape of technological revolutions.

Keywords. Technological Transformation, Digitalization, Information Technology (IT), Digital Technology & Business, Digital Management, (IT) Industry, Operational Efficiency, Cloud Computing, Mobile Technology, Modern Business Management’

1. INTRODUCTION

The fast-changing digital landscape of today has made technology's role in business management indispensable, completely changing how businesses function and succeed. With businesses depending more and more on technology, it has become more important than ever to have a thorough understanding of the significant and distinctive influence/s that technology has on contemporary business management. Above all, this section seeks to navigate this dynamic and constantly evolving scope with an emphasis on aspects concerning the technological transformation.

1.1. BACKGROUND OF THE STUDY:

A never-before-seen explosion of technology advancements has been observed in businesses during the past (40) years. The landscape of management practices has been significantly altered by the ubiquity of: '*Personal Computers*', the development of the '*Internet*', the incorporation of '*Mobile Technologies*', and the advent of '*Cloud Computing*' (Von-Tunzelmann & Anderson, 1999; Brynjolfsson & McAfee, 2014; Chaffey & Ellis-Chadwick, 2019; Friedman, 2006; Perri, 2022).

These changes in technology have unquestionable benefits. According to Brynjolfsson & McAfee (2014) and Kudyba & Diwan (2002: b), businesses have seen significant cost reductions, improved operational efficiency, and a move towards data-driven decision-making. The era of a global marketplace has begun thanks to the ability to connect and work together beyond regional borders (Friedman, 2006).

The above indicated improvements have not, however, been without their share of difficulties. Concerns related to '*Data Privacy*' and '*Information Security*' have grown as a result of the development of '*Cybersecurity Risks*' and '*Technical Advancements*' (O'Reilly, 2005). It has become necessary for the workforce to adapt to quickly changing technology, which raises concerns about the loss of established employment positions (McAfee & Brynjolfsson, 2014).

In terms of how '*Technological Transformation*' have altered the face of corporate management, there are few periods in business history that can match the recent four decades. In fact, since the early 1980s, technological advancements have changed how firms' strategy, operate, and interact with their stakeholders (Von-Tunzelmann & Anderson, 1999).

1.2. PROBLEM STATEMENT

The speed at which technology has developed in recent years has significantly changed how businesses are run. The advent of cutting-edge technologies like automation and '*Artificial Intelligence*' (AI) has had a significant impact on the corporate world. These changes present new opportunities for businesses to increase output, improve customer relations, and eventually set themselves apart in the market. However, these technological advancements have brought forth new challenges that organizations now have to deal with, like the requirement for different skill sets and increased cybersecurity concerns (Abirami, *et al.*, 2023).

In a relevant context, Sestino, *et al.*, (2020) affirmed that the inability of an organization to manage chaotic accidents and incidents resulted from the technological/digital transformation (*e.g., data-theft and inadequate cyber security tactics*) can lead to catastrophic consequences. Cyberattacks lead to higher costs and interfere with online transactions. Furthermore, firms may experience difficulty managing their operations and lose contracts as a result of trading disruptions. A business's reputation is harmed in addition to revenue being lost

when regular operations are disrupted. Thereupon, the managerial bodies at any organizations should be fully aware of the various issues related to such potential consequences.

Other than those specified, the issue of '*Technological/Digital Transformation*', as specified by Warner & Wäger (2019), has gained limited scholarly attention in the realm of business management, particularly within the domain of strategic change. In a related context, Warner & Wäger added that the foregoing term has been also used inconsistently by leaders in numerous industry circles to refer to diversified strategizing and organizing activities (ibid). By the same token, technological/digital transforming capabilities, as explained by Eisenhardt & Martin (2000) and Teece, *et al.* (1997), plays a key role in improving digital maturity of the organizations. In point of fact, the core purpose of the aforesaid capabilities is to manage a wide range of tensions that relate to balancing internal and external collaboration, redesigning flexible and manageable governance structures, and improving the technological/digital maturity of an externally recruited and internally promoted workforce. So, bearing in mind the significance of technological/digital transforming capabilities, hence there is an urgent need for upgrading and enhancing such capabilities by businesses' managements as well as providing rapid responses to the continuously emerging technological and markets' changes.

In light of the above mentioned, the study sought to examine how new technologies have changed traditional management's practices, performance, and work-mechanisms. The ultimate objective of this study is to clarify the impact of technology on business management and offer recommendations for tactics that will enable organizations to maximize their adaptability to the today's technological/digital transformation especially as the widespread adoption of technology has brought about significant transformations in the global business management landscape. Considering how quickly technology is evolving, it is essential to consider how traditional managerial practices have been impacted.

1.3. RESEARCH OBJECTIVES:

This study attempted to quantify the extent to which contemporary technological/digital transformation have changed traditional business management practices. Authentically, due to the significant impact that technological advancements have had on these aspects of corporate management, operations management, marketing, financial management, human resources management, and strategic management, accordingly this study sought to examine the benefits and drawbacks of new technologies for business management, the challenges businesses face in implementing them, and the potential applications of these technologies to increase productivity. The study has also sought to examine how management and employee responsibilities are changing as a result of technology's growing influence in business. Precisely, the current research study aimed to:

1. *To identify the pros and cons of the contemporary technological/digital transformation on the business management, i.e., the disadvantages of such transformation, from one hand, and the advantages of this transformation in boosting the organizations' output.*
2. *To investigate how the evolving role of advanced technologies in business - within the context of the nowadays' technological/digital transformation- is altering traditional notions of management and the duties of both managers and employees.*

1.4. SIGNIFICANCE OF THE STUDY:

For a variety of stakeholders, the research on the potential multifaceted impacts of technological/digital transformation on the realm of business management is of significant importance. The following are some reasons why this study makes a noteworthy contribution:

The current research study is strongly believed to be very crucial for many concerned parties, including the academic community, company leaders, business executives, policymakers, legislators, and the society at large. By carefully examining how technology has evolved over the last (40) years and how it affects business management, scholarly understanding can be remarkably enhanced (Miles, Huberman, & Saldaña, 2019). Besides, the in-depth exploration of such significant issue provides a thorough comprehension of the dynamic interplay between technology and business operations through the integration of case studies, statistical data, and latest research. The capacity to expand on this contribution is believed to highly beneficial especially to researchers, students, and academics working in the fields of management, technology, business, and other relevant fields.

As stated by Bower & Christensen (1995), when technology proceeds in changing the environment of any organization, it then becomes urgent to comprehend the possible benefits and drawbacks of such change/s in order to help managers, entrepreneurs, leaders, etc., to thrive in the newly emerging environment which is often characterized of being technologically sophisticated. The foregoing comprehension would also play a key role in assisting the concerned parties in make strategic decisions. Hence, the current study sought to suggest novel practical practices for navigating the ‘*Digital Age*’, enabling business executives to leverage technology more effectively, increase operational efficacy, and lower any possible risks.

Moreover, it is a challenging task for legislators and regulatory bodies to create laws and regulations that handle the security, privacy, and ethical concerns resulting from technology advancements (Nye & Donahue, 2000). Therefore, through the identification of the primary issues faced by businesses, this study sought to present an empirical foundation for informed policy decisions and to provide decision-makers with the needed knowledge to develop legislative frameworks that balance the growth of technology with the needs of society, data security, and cybersecurity as such knowledge can facilitate the development of policies that uphold public interests and encourage innovation.

2. LITERATURE REVIEW

2.1. INTRODUCTION:

Chapter two presents the presents the data used in the inquiry, the criteria used to ensure quality of knowledge and the process of compiling this research paper. As Arlene (2014) mentioned, a ‘*Literature Review*’ (LR) surveys previous research published in books, scholarly articles, and any other sources relevant to the topic under investigation, under-investigated area of research, or a demonstration of relevant existed theories, and by so doing, reviewing such a corpus of literature provides a description, summary, and critical evaluation of these research works that which are relevant to the research problem being investigated. Similarly, a (LR) designed to provide an overview of sources used in exploring a particular topic and to demonstrate to the targeted readers how this study research fits within existing literature about the topic concerned.

2.2. TECHNOLOGICAL/DIGITAL TRANSFORMATION:

In numberless diversified domains, the term ‘*Technological/Digital Transformation*’ has been used inconsistently to denote several organizing and strategizing activities. However, many precise definitions were introduced by my researchers. For instance, Warner & Wäger (2019) defined digital transformation as “*an ongoing process of strategic renewal that uses advances in digital technologies to build capabilities that refresh or replace an organization's business model, collaborative approach, and culture*” (p. 344). Technological transformation

was also defined by Vial (2019) as “a process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication, and connectivity technologies” (p. 121).

For all intents and purposes, and in light of the obvious points of convergence as well as the similarities found in the aforesaid definitions, it can be concluded that the notion of ‘Technological Transformation’ generally indicates the multipurpose organizations’ utilization and implementation of the latest, most innovative, and highly advanced digital technologies (e.g., smartphones, artificial intelligence, Internet, iCloud, blockchain, and the highest forms of HITECH, i.e., high technology, etc.) in order to achieve major improvements concerning the businesses’ operations, performance, outcomes, and impacts on several actors. The sought improvements are also associated with the augmentation of targeted customers’ experience, creating new business models or upgrading existed ones, digitalizing services and operations, creating an efficient digital business environment, etc. (Kretschmer & Pooyan, 2020).

As for the benefits and obstacles of the technological/digital transformation, while organization accepted technology innovations, they reaped significant business benefits. Automation and data analytics-driven increased operational effectiveness led to considerable cost savings and improved customer service (Kudyba & Diwan, 2002: a). Thanks to the availability of big data and analytics technologies, decision-makers now have insights to guide plans (O’Reilly, 2005). Cross-border communication and cooperation allowed for the creation of a truly global economy (Chaffey & Ellis-Chadwick, 2019). As for the big data and analytics tools, a genuinely global marketplace was made possible by communication and collaboration that cut across geographic borders.

2.3. THE IMPACT OF TECHNOLOGICAL/DIGITAL TRANSFORMATION ON THE DOMAIN OF BUSINESS MANAGEMENT:

In recent decades, research on technological/digital transformation has raised vast interest in the areas of business and management. Such an unprecedented interest has emerged as a result of the demand for proposing a synergistic framework that aims at relating the existing literature on the aforesaid topic to the multidisciplinary areas of business and management, which can contribute to the formation of an evolutionary perspective that is capable of coping with the unsurpassed and emerging developments of the ‘Information Age’.

Technological advancements that accompanied the contemporary technological/digital transformation continue to reshape traditional management practices. As a result, businesses’ managements are now obliged to develop strategies to introduce digital technologies and meet their organizational goals. One of the first things businesses should do, even before defining a clear digital strategy, is to understand how technology impacts operations. Then, as mentioned by Konica Minolta (2022), they can use this information to examine their existing environment to identify gaps that digital transformation processes can improve. By doing this, organizations can decide what they want to accomplish from a digital transformation strategy and create a path to achieve those goals.

As for the nexus between modern technological/digital transformation and management, IILM University (2023) emphasized that a solid correlation exists between the two domains, particularly:

- 1) Automation and Efficiency: relying on automating procedures and increasing efficiency, the incorporation of technology into business management has brought about a revolutionary transformation. Businesses can minimize human error, optimize resource

allocation, and streamline operations with automated inventory management systems and cutting-edge AI-powered solutions.

2) **Enhanced Communication:** Technology has completely changed communication channels. Successful businesses depend on effective communication. In today's business environment, real-time communication, instant messaging, video conferencing, and collaborative platforms are essential.

3) **Business intelligence and data analytics:** In the big data era, technology enables businesses to gather, examine, and use enormous volumes of data for strategic decision-making. Companies can acquire important insights into consumer behavior, industry trends, and operational patterns by utilizing sophisticated analytics tools and algorithms.

4) **Better Decision-Making:** Technology gives managers and executives access to data-driven insights and real-time information, enabling them to make well-informed choices. Decision-makers can recognize patterns, predict results, and take proactive measures to address issues when they have access to key performance indicators (KPIs), interactive dashboards, and predictive analytics.

5) **Innovation and Adaptation:** Innovation and constant adaptation are driven by technology in business management. Businesses that adopt new technology and keep up with emerging trends are better able to adjust to shifting consumer demands and market conditions (ibid).

Correspondingly, with reference to the impact of the technological and digital advances on business management techniques, Abirami, et al., (2023) said that: “in recent years, the rapid development of technology has had a profound effect on the methods used to operate a firm. The corporate world has shifted drastically due to the introduction of cutting-edge technology such as artificial intelligence, automation, and others. These shifts offer new openings for organizations to boost productivity, enrich their interactions with customers, and ultimately, differentiate themselves in the marketplace. Yet, new difficulties, such as the need for different skill sets and higher cybersecurity concerns, have emerged as a result of these technical developments that organizations must now face” (p.6).

As a matter of fact, with the advent of the digital era, corporate communication has attained a new dynamic in which virtual communication occurs. This fosters teamwork at all levels of the organization as it naturally cuts down on time consumption and employee hardships. Because of the administration and retrieval procedures involved, data storage has grown to be a significant barrier to most company operations (Appio, *et al.*, 2019). Besides, businesses have significantly improved their data storage capacity by implementing new technologies. Utilizing cloud computing and other essential digital technologies effectively has enhanced the state of management practices now in use (Lim, *et al.*, 2020). Similarly, it has become a well-known fact that technology has a significant impact on how efficient employees are. This is due to the fact that employees become less engaged and make more manual mistakes when doing repeated activities. According to Kotarba (2018), the foundation for increasing worker productivity is laid with the help of suitable technology, which also helps in achieving project and business objectives. It is determined that the digital transition is extremely expensive, meaning that significant financial assistance is needed for technical developments. Therefore, creating an analytical budget plan is essential for introducing contemporary technology that elevates the development of management methodologies.

2.4. THEORY OF TECHNOLOGICAL/DIGITAL TRANSFORMATION:

Businesses choose a holistic approach to enhance their managerial, cultural, and procedural aspects with the aid of technological advancement. According to Ahlstrom et al.

(2020)'s critical analysis, a change in management increases a company's adaptability and helps it create a business model that can fend off risk factors. Technologies like big data, cloud computing, and artificial intelligence are, with reference to Goralski & Tan (2020), used to increase task efficiency and foster collaboration. It improves operational excellence and gives a company the pertinent data it needs to develop novel services or goods. All and above, this theory denotes that technological advancement aims to increase the changes in the firm's overall development.

Hess, *et al.*, (2016) defined Digital Transformation (DT) as 'transformation concerned with the changes digital technologies can bring about in a company's business model, ... products or organizational structures' (p. 124). Relatively, DT is often considered as the most pervasive managerial challenge faced by the incumbent firms, especially of the last and coming decades.

Conjointly, the integration of digital technology into every aspect of an organization, which radically alters how you run and provide value to clients, is known as technological or digital transformation. Organizations must constantly experiment, question the established quo, and learn to accept failure as part of this cultural shift. Put differently, the process of technological or digital transformation leads to significant modifications in the ways that firms function and provide value to their clientele. Beyond that, it is a culture shift that necessitates frequent experimentation, accepting failure, and constant status quo challenging on the part of companies. This occasionally entails abandoning established business procedures that served as the foundation for an organization in favor of more recent, although still developing methods. Moreover, technological/digital transformation is imperative for all businesses, from the small to the enterprise. It is worth noting that today's organizations are in different places on the road to digital transformation (The Enterprisers Project, 2023).

However, digital possibilities, according to Nadkarni & Prügl (2020), should be accompanied with skilled employees and executives in order to reveal its transformative power. Thus, digital transformation needs both technology and people. In the last years, scholarly attention, particularly in the Information Systems (IS) literature, was on a steady rise leading to a significant increase in the number of papers addressing different technological and organizational aspects of digital transformation.

Based on reviewing the literature on technological disruption, it is hoped that implications regarding the adoption and integration of technology will be driven. Burdened with the legacy of old technology, bureaucratic structures and core rigidities (Leonard-Barton 1992), incumbents may face major challenges in this respect during their digital transformation journey. Second, it is also expected that corporate entrepreneurship will be also adding a more holistic perspective on the firm-internal aspects during the transformation's process, such as the influence of management as well as the impact of knowledge and organizational learning.

2.5. THE TECHNOLOGICAL/DIGITAL TRANSFORMATION ON ORGANIZATIONS' MANAGEMENT (THE AVAILABILITY AND UTILIZATION OF DATA):

One of the most significant effects of technology transformation on organization management has been the availability and utilization of data. The digital era has made decision-making more data-driven. Businesses now collect, store, and analyze massive amounts of data from several sources, enabling them to make informed choices (Brynjolfsson & McAfee, 2014).

Wide-ranging implications result from the shift to decision-making based on data. Businesses now have a greater understanding of customer behavior, market trends, and

operational effectiveness (Chaffey & Ellis-Chadwick, 2019). To meet the needs of a certain customer, they might alter their services and strategies. For sifting through the data deluge, learning meaningful information, and even predicting future trends, artificial intelligence and analytics solutions have become indispensable (Kudyba & Diwan, 2002: b).

However, power comes with responsibility, and privacy and data security are no exception. There is always a danger of cyberattacks and data leaks (O'Reilly, 2005). Organizations must invest heavily in cybersecurity if they want to safeguard critical customer and corporate data. Along with negotiating the ethical concerns of data usage, they must strike a balance between privacy and customization.

2.6. TRANSFORMATION SPECIFIC TO ORGANIZATIONS:

It is challenging to imagine the corporate environment in a generalized fashion since technological adoption has varied across industries (Porter & Heppelmann, 2014). Some industries have emerged as leaders in the digital era and have accepted advancements more swiftly, while others have had special difficulty adapting to the changing environment. In order to assess the total impact of technology on company management, it is critical to understand these distinctions that are particular to each industry (Gartner, 2022).

As for the technological progress in management of businesses, Ismagilova, *et al.*, (2019) asserted that businesses all over the world are depending on new technologies to enhance stakeholder communication. Businesses find it challenging to manage their operations without the internet. Frankly, the use of technologies like emails, chats, and Skype has made communicating with clients and customers easier. Besides, employees can complete tasks more quickly and with higher quality when they use technology. On the same line, businesses view the cost-output relationship as incorporating technological advancement to improve results.

Pursuant to Lamarre, *et al.*, (2023), understanding the process of technological/digital transformation may be surprisingly challenging. managers will find it difficult to control performance and make sure the changes they are implementing are adding value if they are not tracking and measuring results appropriately. Part of the struggle is knowing what to measure. 'Key Performance Indicators' (KPIs) in technological/digital transformation often fall into three categories:

1. Creation of value: One or a few operational KPIs are usually the focus of digital solutions, which can normally be converted into cash gains.
2. Well-being of the team. Many technological/digital transformations take longer to complete than anticipated because the teams are understaffed, they have not embraced current methods of working like agile, or they do not have essential skills like product management and user experience design. It has been found that high-achieving teams may produce five times as much as low-achieving teams.
3. Change-management progress. These indicators track the development of new competencies as well as the overall health of the transformation. Are teams being assembled as scheduled? Are talent and capabilities being developed? Are people utilizing the tools, technologies, and goods that are being produced with ease? In fact, when it comes to managing change, perfection is the enemy of good.

2.7. THE ABILITY OF TECHNOLOGY IN STRENGTHENING THE RESILIENCE OF CURRENT PROCEDURES:

Organizations face numerous challenges due to digitalization and market fluctuations, and many are uncertain about the future. Therefore, all industry's executives need to ask

themselves if their present systems and procedures are prepared for that future. The appropriate technology investments increase the effectiveness, flexibility, and competitiveness of those systems and processes. KPMG's 'Technology-enabled Business Transformation' solution assists companies in identifying and putting into practice the best technological solutions for their requirements, along with industry-leading KPMG practice procedures that maximize business value (KPMG Global Organization, 2023).

Subsequently, achieving more effective systems and procedures entails the reconsideration of the fact that many organizations today are changing their systems, processes, and overall business approaches to better withstand the constant changes. Stronger control, more insight, and easier access to current information are all becoming more and more crucial for many businesses. Assessing and enhancing the value of current systems and processes is crucial in a dynamic business environment. Furthermore, every company, regardless of industry, gains from carefully examining its operations and streamlining current procedures or improving them through the use of technology. Furthermore, technology is now a strategic tool that can add a great deal of additional value rather than just being a supporting component in this. These days, technological advancements are essential to the success of any company. Actually, if an organization hopes to remain resilient over the long haul, the most recent technological advancements are too revolutionary to be disregarded. It's about much more than technology, though. People, optimization, and adaptability are the key factors. When a company uses digital technology to completely transform itself, complete process improvement and increased efficiency are required.

It must be further emphasized that organizations face numerous challenges due to digitalization and market fluctuations, and many are uncertain about the future. Hence, all industry's executives need to ask themselves if their present systems and procedures are prepared for that future. The appropriate technology investments increase the effectiveness, flexibility, and competitiveness of those systems and processes (ibid).

2.8. WOEKFORCE ADAPTATION TOWARDS TECHNOLOGICAL TRANSFORMATION AND THE TENDENCY TOWARDS CONTINUOUS LEARNING:

The rapid pace of technological innovation necessitates a fundamental revolution in personnel development and management (McAfee & Brynjolfsson, 2014). Employers today place a higher value on continuous learning and adaptability than they did in the past when utilizing workers with fixed skill sets. Employees need to acquire new skills and become used to quickly evolving technology in order to remain competitive in the job market (ibid).

Businesses increasingly recognize how important it is for their employees to upgrade their skills. There are several internal and external training programs available to provide personnel with the skills necessary to perform in the digital era. For workers at all levels, access to education has improved thanks to Massive Open Online Courses (MOOCs) and other online learning platforms (Rifkin, 2014).

This change has been influenced by both the need for a tech-savvy workforce and the changing nature of work itself. Automation and 'Artificial Intelligence' (AI) have started to complement some job duties and, in some situations, even replace them (Brynjolfsson & McAfee, 2014). Concerns have been raised concerning the state of employment in the future and the need for businesses and governments to assist those who have lost their jobs in their transition (Gartner, 2022).

On contrary, the contemporary technological/digital transformation trends, as specified by Whatfix (2023), encompasses various types of transformations (rise and fall in popularity) as technology keeps changing. Coping with such trends is considered essential in order to improve the organizations' technological/digital transformations and prepare for inevitable changes in the industry concerned. Recently, the most prominent trends in technological/digital transformation are all associated with creating a better customer and employee experience. Although the majority of employees in most industrial sectors are intimidated by the idea that the emerging technologies are designed to replace them, though great digital transformations involve technology that complements human work. There are many examples of digital transformation trends that aim to work alongside humans to do everything from improving communication to limiting repetitive work, for example Artificial Intelligence (AI), Robotic Process Automation, 5G, mobile development, etc.

2.9. ORGANIZATION-SPECIFIC VARIATION:

It has become evident, based on the relevant literature- that the 'Technological Transformation' (TT) can affect corporate management in several manners depending on the type of industry (Porter & Heppelmann, 2014). Although technology has been a major force for change, levels and adoption rates differ greatly. For instance, the financial industry has undergone tremendous technological integration as a result of the advent of internet banking, fintech companies, and cryptocurrencies (Chaffey & Ellis-Chadwick, 2019). These changes have improved customer comfort and created new revenue streams. On the other hand, sectors like agriculture have had particular trouble embracing technology due to problems including the digital divide, rural infrastructure, and the requirement for specialized solutions (Rifkin, 2014).

3. METHODOLOGY

3.1. INTRODUCTION:

This chapter presents the descriptive research used in the procedure study. The research design and the respondents of the study as well as the data gathering procedure, the research instrument and the statistical analysis of data will be discussed.

3.2. THE INTEGRATIVE RESEARCH APPROACH (AS A RESEARCH METHOD):

This chapter presents the integrative research approach as the research instrument utilized in the procedure study, the research design and the collection of the data contented.

In the present research study, the literature review was adopted as the research method. Tranfield, *et al.* (2003) stated that generating knowledge within the field of business research has been accelerating at a remarkable speed. However, this field is still fragmented. This has accordingly made it difficult for this interdisciplinary field to be at the forefront and to keep up with state-of-the-art research. Furthermore, the state of fragmentation has led to this field's inability to assess the collective evidence in its various research areas. Therefore, utilizing the literature review as a research method has become more relevant than ever and this is due to the fact that such method can be more a systematic way of collecting and synthesizing relevant literature.

In addition to the foregoing, a well-conducted literature review (*as a research method*) is capable of creating a consolidated data that can contribute to obtain advanced as well as facilitating and enhancing the development of new theories. (Webster & Watson, 2002). On

the same line, Transfield, *et al.* (2003) mentioned that through the integration of findings and perspectives retrieved from previous empirical research studies, a literature review can address research questions with a power that no single study has. A literature review can also assist the researchers in providing an overview of areas in which the research is interdisciplinary. Further, it is considered as an outstanding way of synthesizing research findings that aimed at demonstrating a meta-level evidence that has the potential to uncover and reveal areas in which more research is urgently needed. Such evidences are seen as necessary components of developing theoretical frameworks as well as building novel conceptual models. On contrary, portraying the relevant literature through traditional ways usually lacks thoroughness and it is often undertaken in a less systematic manner (*ibid*).

As a result, it is difficult to understand what the body of research is actually saying or pointing towards. Because of this, there is a high possibility that various authors base their studies on false presumptions. Actually, serious issues can arise when researchers choose which evidence to use as the foundation for their work and ignore research that contradicts their findings. Furthermore, there are frequently disagreements regarding the definition of a quality contribution, even in cases where the reviews' methodology is sound (Snyder, 2019).

According to Snyder (2019), there are a number of existing approaches for literature reviews. These approaches include: the systematic literature review, the semi-systematic literature review, and the integrative literature review. Depending on the methodology that is needed to fulfill the objective of the literature review, the previously mentioned types can be helpful and appropriate to reach the research studies' goals. In the current study, the researcher adopted the integrative literature review.

The integrative literature review, according to Torraco (2005) usually has a different purpose, with the aim to assess, critique, and synthesize the literature on a research topic in a way that enables new theoretical frameworks and perspectives to emerge. Additionally, there are many examples on the adoption of the integrative literature review approach in the business literature, including Mazumdar, *et al.*, (2005) and Convington (2000).

It is noteworthy that the majority of integrative literature reviews serve addressing new and most emerging topics. Precisely, when mature topics are the case, then the reason behind adopting the integrative review method is for the sake of overviewing the knowledge base as well as reviewing re-conceptualizing, and expanding the theoretical foundation of the topics concerned in a critical manner as the develops. Particularly, as for the novel emerging topics, the purposes are then creating preliminary conceptualizations and theoretical models instead of reviewing previously existed models. To boot, an integrative literature reviews often requires a more creative and innovative collection of data and that is due to genuine purpose of such review which is combining perspectives and relevant insights existed within different fields' domains or research traditions rather than covering all articles ever published on the topic/s concerned.

It must be indicated that, with reference to Whitemore & Knafl (2005), the data analysis which is part of an integrative or critical review should not be particularly developed with accordance to specific standards. On contrary, and since is no strict standard, the ultimate goal of a data analysis within the integrative review method is to mainly analyze and examine the literature and the main ideas and relationships of an issue in a critical manner which entails researchers to have advanced skills, such as superior conceptual thinking, being transparent, and being able to document the process of analysis; course (MacInnis, 2011).

In light of the above. it is worth noting that, regarding the potential contribution from adopting the integrative review, such review can lead to grasping the advancement of

knowledge and theoretical frameworks. For this reason, the integrative literature review should not be descriptive or historical, however, it should preferably generate a new conceptual framework or theory (Torraco, 2005).

CONCLUSION

The current study, titled: “*The Impact of Technological/Digital Transformation on Business Management*” investigated a crucial topic in the ‘*Digital Age*’. The precise goal of the research is to investigate how businesses’ management tactics and practices have changed over time due to technology improvements. It clarifies how, between the 1980s and the present, certain facets of corporate management have been significantly impacted by technology advancements.

Furthermore, the research attempted to shed light on the challenges and complexities that the area of business management is facing as a result of these technological advancements. Understanding these changes is essential since the study looks at both the benefits and drawbacks in great detail.

The reviewed literature demonstrated that digital era presents a challenge for organizations. It has changed organizations’ structures and procedures, completely altering how organizations engage with their clientele. Organizations may be affected by the digital disruption in accordance with technological transformations. The traditional business model has been challenged by the emergence of digital technology, and many businesses now need to adapt. Innovations in digital transformation extend beyond product delivery. Using a fresh, creative business model, the organizations are attempting to reconstruct an agile company strategy. Digital transformation fundamentally alters how we interact with one another, live, and work.

The current study concluded that the field of business management has seen a significant change due to technology. It has made data-driven decision-making, automation, and increased operational efficiency possible. Conjointly, it has been revealed that technological/digital transformation is an ongoing process of using new advanced technologies in everyday organizational life, which recognizes agility as the core mechanism for the strategic renewal business models, collaborative approaches, and cultures of the business organizations.

The study revealed that the outcomes of the information age is still changing how businesses work by revolutionizing data utilization and gathering. By the same token, the study found that in order for organizations in a variety of industries to be competitive in this digital era, they must adapt. Upskilling and constant learning are essential for today's workforce. Moreover, taking into consideration the moral conundrums that have emerged, such as data privacy, AI prejudice, and work-life balance concerns in the digital workplace, the current study believes that it is imperative that these issues should be addressed and further research studies should be conducted. The findings of the study further demonstrated that organizations need to remain ethically conscious and flexible in this rapidly evolving digital age by illuminating the revolutionary potential of technology to change the face of the businesses’ management. Additionally, business leaders and governments are in need to strike a balance between innovation and data security and privacy in order to successfully enter the digital era. Finally, from a contemporary innovation perspective, incumbent organizations in traditional industries are now more eager than ever to build digitally-based dynamic capabilities which are believed to be an essential requirement and a necessity for achieving a safe and successful ‘*Technological/Digital Transformation*’.

IMPLICATIONS OF THE STUDY

Bearing in mind the revealed findings, this research study has important ramifications for a range of stakeholders, including academics, business leaders, legislators, and the general public. Over and above, part of the implications of the current study is directing regulation and policymaking. For legislators and regulatory agencies, creating rules and regulations that address security, privacy, and moral dilemmas resulting from technological advancements is a challenging task. Hence, the empirical insights into the issue of technological/digital transformation provided by this research generates valuable data for the development of legal frameworks that would be capable of addressing relevant issues, including data protection, cybersecurity, the management bodies' competency to cope with inevitable technological/digital transformation forced by the new era (*also called 'The Information Age'*), etc.

Relying on the thorough examination carried out by this study and through which the issue of how technological/digital transformation has changed and impacted business management, the outcomes of this examination would add to the corpus of knowledge of the subject concerned and further contribute to the enhancement of the awareness and perception of people of interest, including academics, researchers, managers, etc. In other words, relying on the findings of the study, business leaders, managers, and decision-makers would have the opportunities to encounter potential problems that go along the previously mentioned transformation. Furthermore, the aforesaid findings generated strategies for navigating the digital era, assisting business executives in making effective use of technology, improving operational efficacy, and minimizing risks.

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