Women Leadership, Management, and AI: Analyzing Digital Transformation in Lebanon's Private Sector

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ABSTRACT

Digital transformation is a global phenomenon because it is forming the future. Ever since the rise of technology, women have been taking on roles. Also, the evolution of artificial intelligence takes on a transformative role in leadership. The author will outline the concept of women's roles in regards to digital transformation. Also, the author will discuss the effects of artificial intelligence through leadership. The value of this study is relatively new. The primary goal of this paper is to analyze the effects of women's role through digital transformation in Lebanon using a qualitative research method with 10 small business owners in a private sector. We conclude that women have a big role in the digital world and leadership era. This research is beneficial to leaders, CEOs, and academics because they gain more understanding about women's jobs and a sense of why leadership is essential.

Keywords: *Digital transformation, private sector, women leadership, artificial intelligence*

Chapter One: Introduction

1. Background and Overview.

Digital transformation (DT) is a buzzword and is a topic of interest to several disciplines. In addition, digital transformation is driving business innovation for the private sector. It involves a lot more than simply updating the technology and processes they use. Innovation in leadership requires levels of investment that, done strategically, can result in increased revenue. It surely isn't a quick fix, but it is an effective one that has helped several well-known companies to thrive. Since the research goal was to discuss the phenomenon of women's role via digital transformation in the private sector, the author had to scrutinize the empirical literature that provides details of such digital transformation initiatives and women. The purpose of this research paper is for those who want to study women's role with regards to the rise of technologies and leadership. It is critical to explore the impact of the present research for the women to become important in the Lebanese private sector, notably in the leadership field. The researcher attempts to state that women have the potential to create successful leadership based on the collaborative and social nature of digital transformation. The researcher used key words of "private sector," "leadership," and "women" as the initial selection criteria.

In Beirut, Lebanon, the private sector has been dealing with a lot of struggles, especially in light of the digital revolution. The Lebanese private sector must create practical solutions to these problems in order to manage the quickly changing environment. The balanced scorecard and the blue ocean strategy are two tactics that are popular in the business sector. In addition to examining the relationship between these strategies and digital transformation in the Lebanese private sector, the research will look at the function of Porter's Five Forces, the BCG matrix, and Hoshin Kanri.

Albert S. Humphrey was an American organizational theorist and management consultant best known for his development of the SWOT analysis. Humphrey's work left a long-lasting impact on the field of strategic planning and continues to be an integral part of the business strategy discussion. Another well-known American professor is Michael E. Porter, who introduced the five forces framework, which is widely used in strategic management and business analysis. Robert Kaplan and David Norton both developed a balanced scorecard that provides a comprehensive view of the private sector's performance by including both financial and non-financial measures. In addition, W. Chan Kim and Renee Mauborgne published the "Blue Ocean Strategy."

With the context of the digital transformation in the Lebanese private sector, the Blue Ocean Strategy and balanced scorecard can complement each other because the Blue Ocean Strategy emphasizes innovation and value creation. In the digital realm, this could involve unique services. On the other hand, the balanced scorecard is a performance management tool that aligns business activities with the vision and strategy of the private sector. It provides a valanced view of the performance across the learning and growth perspective. Along with digital transformation, the balanced scorecard can help measure the effectiveness of initiatives. Combining these two approaches means using the Blue Ocean strategy to have innovative ideas, while the Balanced Scorecard helps to make sure that the initiatives align with business objectives.

Hoshin Kanri, a Japanese management philosopher, focuses on aligning strategic goals with day-to-day operations. This philosophy involves a top-down approach where leaders set long-term objectives, and these objectives are going down through the organization. Kanri focuses on structured planning, often using annual plans with a focus on continuous improvement. For the private sector in Lebanon and with digital transformation, H. Kanri might be beneficial for organizations with leaders seeking a structured and systematic approach to aligning strategies with operations.

1.1 Significant Study

The research study is essential for this era because women's leadership is not explored efficiently with digital transformation, artificial intelligence, and new strategies. This study is one of the newest because women's leadership is at the focus. The research would add value because it would make women feel important in the Lebanese society along with the digital trends.

1.2 Problem Statement

DT is considered the foundation for the success of any firm because of its competition. The literature review presented highlights the importance of embracing DT and women leadership and AI along with strategy to ensure the durability of firms. Given its importance and lack of research related to DT in Lebanon, it is necessary that this gap be filled. DT and women leadership are essential for companies to keep on operating efficiently.

There are numerous challenges that will be explored in this study. However, it is essential to emphasize equipping women leaders with the right knowledge in order to reduce the challenges experienced in the Lebanese private sector.

In order to delve into the topic of women's leadership in the Lebanese private sector, it is of utmost importance that change come.

The researcher's experience of DT comes from the experience of working with several companies in Lebanon within the field of technologies and leadership. This was obvious when leaders of the Lebanese private sectors were complaining that changes must be apparent.

The literature review indicates that digital transformation is dominant in the private sector. However, there are many unanswered questions about the practical use of DT and women leadership in the current environment:

• There is still doubt about the use of DT in the Lebanese private sector.

• It is still difficult to determine in which phase the women's leadership with DT is in the context of 10 Lebanese private sectors.

To the best of the researcher's knowledge, the research paper is the first one to explore women's leadership within the Lebanese private sectors. By exploring DT, AI, and strategy, this qualitative study will be able to identify women leadership within the private sector in Lebanon and if it is applied correctly.

1.3 The Research Question

The research question of this present study is: What are the effects of women's role through digital transformation in Lebanon?

1.4 Data Collection Method

Data for review were collected from one main source, which is academic articles. The search terms included "AI," "leadership," "digital transformation," "private sector," and "women." To get research articles, searches on Google Scholar were initiated.

1.5 Methodology

The researcher will use in-depth interviews with 10 small women leaders located in Beirut to investigate digital transformation with artificial intelligence in the private sector in Lebanon. The key criteria for this present research are that managers should be working either full time or part time and are using technology. The researcher will make contact with potential participants through emailing an interview invitation to managers with whom they are in personal contact.

1.6 Sampling Method

In this present study, the researcher used the purposive sampling method to recruit a wide range of participants from different genders, between the ages of 25 and 50 years old.

1.7 Thesis Structure

The paper is structured as follows: Chapter one is the introduction, Chapter two describes the literature review, and Chapter three describes the methodology. Chapter four presents the findings,

while Chapter five focuses on the discussion aspect and conclusion.

Chapter Two: Literature Review

2. Literature Review:

A) Women's Role and Digital Transformation in Leadership:

2.1 Introduction:

Businesses in Beirut, Lebanon, have been suffering with the need for digital transformation since the year 2020 as a means of remaining competitive in a world that is becoming more linked by the day. W. Chan Kim and Renée Mauborgne established the Blue Ocean Strategy. This encourages businesses in Beirut to look for uncontested market areas in order to create new possibilities.

To meet the difficulties of digital transformation, the Lebanese private sectors are integrating these frameworks strategically. The Balanced Scorecard makes sure that the application of these strategies is in line with larger corporate objectives, while the Blue Ocean Strategy assists companies in creative

Furthermore, the methods used to oversee digital change need to be examined. Hoshin Kanri, a Japanese management concept, focuses on target deployment. Understanding the distinctions among these approaches is fundamental for the private sectors in Lebanon looking for efficient approaches to oversee digital transformation.

Digital transformation is a state with many different digital maturity levels within a company; therefore, people must be digitally competent in their organization. Women's presence on the leadership team creates a strong sense of social commitment and more leadership style. Also, women's presence in the leadership team leads to greater motivation and greater results. One advantage of women's presence is the family-work-life balance. Notably, women are competent in becoming leaders because they have a caring attitude and are able to face the era of digital transformation. They are able to create a

supportive team culture. Women are slowing making their leadership level felt in leadership, administration, education, and health, either at national and global levels. De Zarate (2003) claims that women are constantly evolving and reaching maturity and new levels across a vast era of human activities in modern times. Some examples of women who are continuously evolving are Hillary Rodham Clinton, Oprah Winfrey, and Christine Lagarde, to name a few. Interestingly, women leaders are more transformational than men. The presence of women in the management sector is associated with powerful social commitment and leadership style. Female executives would raise the motivation level in the sector, and women leaders use digital tools such as email, instant messaging, and video conferencing.

2.2 Digital Women Leaders

Digital women leaders are more flexible with their work hours, they gather insight and tools and they are more likely to be leaders in the start-up era for new businesses Women leaders set boundaries when working as a leader. They take care of themselves first. So, women's leadership in companies adds real value because it creates a mix of different perspectives. Women leaders through the era of digital transformation work through engaging and result-facing content. They learn independently and develop though to meet their own unique needs of today's virtual workforce. Some examples leading the digital disruption are Jean Lui, Dara Treseder, and Sabba Quidwai. First, Jean Lui gave the most popular rideshare app in the world, which is known as Uber. She guides other women by educating them and training them in their own local language. Second, Dara is an alumnus of Apple, CMO of GE Ventures and GE business. She is charge of building Peleton's brand and inspires other women to do work. Third, Sabba has a mission to create a culture for young people because she founded the design schools. She was a science teacher and moved into the role of director of innovative teaching. Sabba also teaches other women for creativity and inspiration. Hence, those are some examples of digital women leaders in this generation. This shows that digital women leaders will soon change

professional live and organizations where we work because it creates new strategies.

2.3 Artificial Intelligence

Artificial intelligence (AI) is made up of advanced algorithms that utilize a mathematical function to enable processes compared to what a human being could do. It uses symbols to come up with decisions (Temelkova, 2018) and plays crucial roles in analysis because it is a strategic advantage. In the aforementioned research on artificial intelligence is Satalia, a company that uses data science and machine learning. David Hulme launched Satalia in 2008 to build customized platforms that solve tough logistic problems involving products, people, and service (4). Furthermore, Hulme (2018) stated that digital twins are the next evolution of digital transformation. In order to survive, companies need to create a digital replica of all of their physical assets, their infrastructure, and their people. AI does not create any threat; instead, it provides benefits such as reducing errors and giving solutions. It does not aim to replace humans, but it enhances human capacities. For example, there are self-driving cars and technologies used in mobile phones.

Unfortunately, AI affects international trade because it has low productivity growth. Additionally, AI affects the type and quality of economic growth, such as speeding up the transition towards service economies (Meltzer, 2018). If AI could replace human accountants in Beirut, Lebanon, then it could have detrimental effects on the job markets as well as the employment of future accountants.

Therefore, Hulme (n.d.) claimed that companies should be looking at four categories for AI skills. First, companies should focus on the data. Next, companies should recruit data scientists who have machine learning and statistics skills to find insights from the data and decision scientists who can understand and how to make decisions. Last but not least, companies need to have an AI architect who understands how to glue the three categories together: the data, data scientists, and decision scientists.

When managers think of AI in the Lebanese private sector, it is considered a universal phenomenon in the management field because it is simply changing the manager's role. For example, AI is freeing up the work time of the Lebanese leaders by allowing them to focus on the job instead. What matters is the most of the human skill of creativity and innovation, which AI doesn't have yet in Beirut, Lebanon. Some Lebanese private sectors that were early in using AI are using digital assistants that will allow the employees to say something like "I will take Monday off." This use of AI will help it focus on the needs of both employees and guests. To make it easier, AI in Lebanon will not be replacing the manager's role in the companies, but it will help them along the way. Furthermore, the Lebanese private firms focusing on the leadership side are advancing with opportunities that use AI because it is one of the sector's top priorities. AI helps the managers in the Lebanese private sectors to verify and analyze data, enhance investor experience, make highly accurate forecasts, and automate news and event analytics. AI has become the greatest because it keeps on pushing the limits of human capabilities, thus forming the future.

2.4 Artificial Intelligence and Women Leadership

The general technology industry that includes artificial intelligence has an issue with gender diversity. As people can see, it is controlled by the males, despite more than half of the population being women. Since artificial intelligence (AI) is dominating every side of the world and is forming the future, women should take the lead. Although men are having work in the AI field, numerous women have taken on roles that are making it influential. Examples of such women include Claire Delaunay, Nichol Bradford, and Dr. Fei-Fei Li. First, Claire Delaunay was the vice president of engineering at NVIDIA, which is a global leader in AI computing, from 2017 to 2022. Delaunay is able to control robotics and solve AI solutions on several platforms. Another important figure in the AI field is Nichol Bradford, who is a founder, CEO, and transformative tech pioneer. Nichol Bradford did some interesting things within the AI scope, such as operating Blizzard Entertainment's Chinese properties such as World of Warcraft and

Diablo III. She also worked for Disney and Blizzard and is the executive director and co-founder of the transformative technology. Dr. Fei-Fei LI is another women leader that is significant in the AI field since she is a computer science professor at Stanford University. She co-directs Stanford's AI institute and took on several roles at Google and Google Cloud, acting as a vice president and chief of artificial intelligence. In addition, Dr. Fei-Fei Li founded an image database called ImageNet, helping recognize object models. This shows that women leaders are ready to delve into the technology world, joining the ranks and working in the AI private sector field (Partida, 2013).

2.5 Women Digital Leadership and Technology:

Women's leadership in digital technology fields has become an increasingly important topic in recent decades. Despite making up nearly half the workforce in many countries, women remain underrepresented in technology roles and leadership positions in the tech industry (Ashcraft et al., 2016). However, research shows that gender diversity in tech teams leads to greater innovation and improved financial performance (Díaz-García et al., 2013). Women leaders in technology often face unique challenges, including gender bias, lack of role models, and work-life balance issues (Hewlett et al., 2008). Efforts to address these disparities include mentorship programs, inclusive hiring practices, and initiatives to encourage girls and young women to pursue STEM education (Cheryan et al., 2017). As digital technologies continue to shape our world, increasing women's participation and leadership in this sector is crucial for ensuring that technological advancements benefit and represent all of society.

B) Women Leadership and Entrepreneurship in the Era of Digital Transformation

2.6 The Rise of Women Entrepreneurs in the Digital Age:

The digital transformation has created unprecedented opportunities for women in leadership and entrepreneurship. As traditional barriers to entry are lowered by technology, women are increasingly founding and leading innovative digital businesses (Dy et al., 2017). Online platforms and e-commerce have enabled female entrepreneurs to access global markets and scale their businesses more easily than ever before. Social media and digital marketing tools have also empowered women to build personal brands and connect with customers in new ways. Research shows that women-led digital startups tend to be more capital-efficient and achieve higher revenues than those led by men (Teare & Desmond, 2016). However, challenges remain, including access to funding and representation in high-growth tech sectors.

2.7 Navigating Challenges and Fostering Inclusive Digital Leadership:

Despite the opportunities presented by digital transformation, women leaders and entrepreneurs still face significant obstacles. Gender biases in STEM fields and the tech industry can hinder women's advancement into leadership roles (Ashcraft et al., 2016). Additionally, the "digital gender"divide"- sparities in access to and use of digital technologies-continues to affect women entrepreneurs, particularly in developing countries (OECD, 2018). To address these challenges, initiatives focusing on digital skills training, mentorship, and inclusive funding models are crucial. Organizations and policymakers must also work to create supportive ecosystems that nurture women's digital leadership and entrepreneurship. As the digital economy continues to evolve, fostering diverse and inclusive leadership will be essential for driving innovation and sustainable growth.

2.8 Conceptual Framework: Women leadership along with DT and strategy:

The intersection of women's leadership, design thinking (DT), and strategic management presents a compelling area for research and practical application in today's dynamic business environment. Women leaders, who often bring unique perspectives and leadership styles to the table, are increasingly recognized for their potential to drive innovation and organizational success. When combined with the principles of design thinking-a human-centered approach to

problem-solving that emphasizes empathy, ideation, and iterative prototyping—women leaders can leverage their strengths in communication, collaboration, and holistic thinking to develop more innovative and inclusive strategies (Brown & Katz, 2011). This synergy between women's leadership and design thinking can lead to more creative and effective strategic decision-making processes. For instance, studies have shown that companies with higher representation of women in leadership positions tend to outperform their competitors, particularly in areas requiring innovation and adaptability (Credit Suisse, 2014). Furthermore, the integration of design thinking methodologies into strategic planning allows for a more flexible and user-centric approach to addressing complex business challenges, which aligns well with many women leaders' tendencies towards participative and transformational leadership styles (Eagly & Carli, 2007). As organizations face increasing pressure to innovate and adapt to rapidly changing market conditions, the combination of women's leadership, design thinking, and strategic management offers a powerful framework for driving sustainable growth and competitive advantage in the 21st century business landscape (Teare & Desmond, 2016).

Chapter Three: Methodology

3.1 Introduction

Data for review were collected from one main source, which is academic articles. The search terms included "AI," "leadership," "digital transformation," "private sector," and "women." To get research articles, searches on Google Scholar were initiated. (1) stated that any organization can use qualitative and quantitative methods in analysis. Thus, the researcher will use qualitative, in-depth, semi-structured reflective interviewing to be able to hear data to form a strong internal validity with 10 small women leaders in a private sector. The qualitative approach in the Lebanese leadership sector allows to manage performance, leading the sector to be more efficient and productive. The research will also use a thematic coding process, specifically grounded theory. For small leadership offices, such as Lebanon, it is

difficult to overstate the potential contribution of qualitative research because some leaders may resist giving out operational information.

3.2 Research Design:

The researcher will use in-depth interviews with 10 small women leaders located in Beirut to investigate digital transformation with artificial intelligence in the private sector in Lebanon. The key criteria for this present research are that managers should be working either full time or part time and are using technology.

The researcher will make contact with potential participants through emailing an interview invitation to managers with whom they are in personal contact.

3.3 Research Model:

Recent research has shed light on the intersection of digital transformation and women's leadership in organizations. This emerging field of study aims to understand how gender dynamics influence and are influenced by the rapid technological changes reshaping industries worldwide. A comprehensive research model on this topic typically incorporates several key elements:

1. Leadership styles: The model examines how women leaders' collaborative and inclusive approaches may be particularly well-suited to navigating the complexities of digital transformation.

2. Organizational culture: Researchers investigate how a diverse and inclusive culture, often fostered by women leaders, can facilitate smoother digital transitions.

3. Technological competencies: The model assesses the acquisition and development of digital skills among women leaders and their teams.

4. Change management: It explores how women leaders handle the human aspects of technological change, including employee resistance and adaptability.

5. Innovation and creativity: The research examines how women's leadership may foster environments conducive to digital innovation.

6. Decision-making processes: The model investigates how women leaders approach data-driven decision-making in the digital age.

7. Barriers and challenges: Researchers analyze the unique obstacles women may face in leading digital transformation initiatives, such as gender biases in tech-related fields.

This multifaceted research model provides a framework for understanding the complex interplay between gender, leadership, and digital transformation, offering insights that can inform more effective and inclusive organizational strategies in our increasingly digital world.

3.4 Research Hypothesis:

Digital transformation is reshaping industries and organizations worldwide, demanding new leadership approaches and skills. Concurrently, there's a growing focus on diversity in leadership, particularly the role of women in top management positions. This research hypothesis explores the intersection of these two important trends.

So, the research hypothesis is that women leaders are more effective than their male counterparts in driving successful digital transformation initiatives within organizations. Therefore, there are two variables within the hypothesis, which are the independent variable and the dependent variable. The independent variable is gender of organizational leaders (focusing on women vs. men in leadership roles). And the dependent variable is the effectiveness of digital transformation initiatives. This hypothesis is based on several assumptions and observations:

1. Women leaders often exhibit stronger interpersonal and communication skills, which are crucial for managing change during digital transformation.

2. Research suggests that women tend to have higher levels of emotional intelligence, which can

be beneficial in navigating the complexities of digital transformation.

3. Women leaders may be more likely to adopt collaborative and inclusive leadership styles, which can foster innovation and adaptability necessary for successful digital transformation.

4. As historically underrepresented in tech leadership, women who achieve such positions might bring fresh perspectives and approaches to digital initiatives.

3.5 Research Methodology:

To test this hypothesis, the researcher might consider using:

1. Comparative case studies of organizations led by women vs. men during digital transformation

2. Longitudinal studies tracking digital transformation success over time

3. Surveys and interviews with employees and stakeholders in digitally transforming organizations

4. Quantitative analysis of financial and operational performance metrics.

3.5.1 Sampling Strategy:

This sampling strategy aims to investigate the relationship between women leaders and digital transformation success in organizations. The study will focus on comparing organizations led by women to those led by men during periods of digital transformation.

The researcher will use stratified random sampling to ensure representation across different variables:

1. Leadership gender (women-led vs. men-led organizations)

2. Industry sectors (e.g., technology, finance, healthcare, manufacturing)

3. Organization size (Small)

4. Geographic regions (to account for cultural differences).

3.6 Interviews:

An information letter will be provided to the participants that explains what they will do in the study. In addition, a consent form will outline the employees' ethical rights, including possible risks, their right to withdraw, and assurances of confidentiality. Interview questions included: 1) How did digital transformation affect the work of women? 2) How will the AI change the job of the women leaders? 3) In your opinion, have you ever seen digital women leaders? 4) How do the AI and women leaders work together?

3.7 Mission:

The Lebanese private sectors have put all their efforts into women's leadership and digital transformation along with strategy. These Lebanese private sectors allow participants to have experience with the latest digital trends. The mission is to offer participants the latest knowledge regarding what is happening digitally, especially in the leadership. Also, it is essential to include potential women in this field of the private sector because it would improve rapport with coworkers and other leaders in different departments.

3.8 Vision:

Since DT is present, the Lebanese private sector aims to:

• Be one of the top leading digital in the domain of women's leadership.

• Increase digitalization and women's leadership along with strategy all over Beirut, Lebanon.

• Have a digital learning environment to increase engagement for women leaders in the Lebanese private sector.

3.9 Data Collection Method:

The researcher in this present study will use semi-structured interviews with women leaders to explore the leadership style, decision-making processes, and challenges faced during digital transformation. The exclusion criteria of the interviews are organizations that are faced with frequent leadership changes during the digital transformation period, companies with less than 3 years of operation, and organizations that have not initiated significant digital transformation efforts.

3.10 Research Design

It is impossible to fully study women's leadership and digital transformation in this single research. Based on that, the specific research problem that will be addressed revolves around women's leadership, DT, and strategy. In order to address the research problem in regards to digital transformation, this research study was designed around the following question: what is the new regarding women leadership and digital transformation via strategy?

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

As discussed previously, the essence of this study is to understand DT and women leadership with few strategies thoroughly. This action research utilized a qualitative approach to investigate how women leaders live in a world with digital transformation passively through the newest strategies. DT can be discovered within quantitative studies, but statistics and data are not relevant for this research.

A quantitative approach was not selected because statistical analysis is integrated within the study. It is also important to note that a quantitative

approach does not shed light on the human experience and cannot explore the why and how, and wording is crucial in this case. All the aforementioned factors would therefore make the research study difficult to conduct. A qualitative approach would better understand a complex reality and the meaning of actions in each context; it makes it easier to study DT since participants are able to respond in a natural setting, and it is good at simplifying data.

Lack of strong claim and lack of interpretation are some of the challenges encountered within qualitative studies. The justification for selecting a qualitative approach as opposed to the quantitative and mixed method (quantitative/qualitative study) is because open-ended interviews are conducted with the employers, which would provide valuable thematic insight.

Data was coded and reported based on the themes that are change, people, and culture.

This research study follows an interpretivist approach, which allows the researcher to understand women's leadership and DT more thoroughly. The study began with interviews within the Lebanese private sector in order to cultivate valuable insights. In total, ten interviews were conducted with the help of semi-structured interviews of several industries, such as leadership.

The research study took over a 12-month period from January till December 2023 from data collection and interviews at Lebanese private sectors until data analysis was conducted.

Chapter Four: Data Analysis and Results

4.1 Introduction:

In the rapidly evolving landscape of business, the intersection of gender diversity in leadership and digital transformation has become a focal point of research and discussion. This study aims to shed light on the relationship between women leaders and the success of digital transformation initiatives within organizations. Through a comprehensive analysis of data, the researcher sought to uncover patterns, correlations, and insights that could inform future strategies for both leadership development and technological advancement.

4.1 Findings:

Most participants argued that digital transformation and AI should be available at all times with women leadership; this is because technology is very important. In particular, some participants exclaimed that AI is one of the fastest growths seen within the leadership area in the private sector.

Women leaders are also more able to complete their work successfully with the aid of machines. A women CEO claimed that there is no struggle between encouraging diversity and giving merit by treating everyone fairly and equally in the Lebanese private sector. She goes on to state that "this means that I value and appreciate the unique skills and talents of each individual. When it's time to recognize and reward hard work and achievements, I will do so based on the effort and accomplishments of everyone, regardless of their background or identity." That way, every person would feel included and motivated to do their best. By working together, women leaders and robots use a collaborative approach. Machines handle work, while women leaders give creative ideas. The results show DT and AI can change leadership for women in the Lebanese private sector.

4.2 Themes:

A qualitative study exploring the intersection of digital transformation and women's leadership would likely uncover several key themes. One prominent theme may be the unique perspectives and approaches that women leaders bring to digital transformation initiatives. This could include a tendency towards more collaborative decision-making processes and a focus on building inclusive digital cultures. Another theme might revolve around the challenges women leaders face in male-dominated tech sectors, such as overcoming gender biases and stereotypes while

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driving technological change. The study also highlights how women leaders leverage emotional intelligence and communication skills to navigate the human aspects of digital transformation, potentially leading to higher employee engagement and adoption of new technologies. Additionally, the research reveals patterns in how women leaders prioritize diversity and representation in digital teams, potentially fostering more innovative and user-centric digital solutions. Finally, the study explores how women leaders' experiences and backgrounds influence their strategic vision for digital transformation, possibly emphasizing long-term sustainability and societal impact alongside immediate business goals.

4.3 Conclusion of data analysis and results:

The present study highlights that women leader want to improve digital transformation and foster innovative solutions. Women leaders have strong communication skills and also have a strong strategic vision towards the world that they can create.

Chapter Five: Conclusion and Recommendations

5.1 Introduction:

As the researcher draws this exploration to a close, it is evident that the intersection of women's leadership and digital transformation presents both significant opportunities and persistent challenges. Throughout the analysis, the researcher has uncovered compelling evidence of the unique value that women leaders bring to the digital age, as well as the obstacles they continue to face. This conclusion will synthesize the key findings, examining how women's leadership styles and perspectives can drive innovation and inclusivity in digital transformation efforts while also addressing the systemic barriers that still hinder their full participation and advancement in technology-driven sectors. By reflecting on these insights, the researcher can chart a path forward that leverages the strengths of women leaders to create more diverse, equitable, and successful digital transformations across industries and organizations.

5.2 Discussion of Research Findings:

Research has consistently shown that women leaders often exhibit leadership styles that are particularly well-suited to driving digital transformation:

- Collaborative approach: Women tend to foster more inclusive and collaborative work environments, which can accelerate innovation and idea-sharing in digital initiatives.

- Emotional intelligence: Higher levels of emotional intelligence among women leaders can help navigate the human aspects of technological change.

- Risk-balanced decision making: Studies indicate women leaders often take a more balanced approach to risk, which is crucial in fast-paced digital environments.

Women leaders often bring valuable insights to digital transformation efforts:

Research suggests women leaders may be more attuned to user experience considerations, which is critical in developing digital products and services. Women's perspectives can help ensure digital solutions are designed with diverse user groups in mind, potentially expanding market reach.

5.3 Recommendations:

Based on the findings of the study, these are the essential recommendations:

1. It is necessary to consider the possibility of increasing the pace of women's leadership in Beirut, Lebanon, and any significant opportunities that may arise for the development of the industry.

2. There must be collaboration between women leadership and digital transformation to support the strategy era in Beirut, Lebanon.

3. The leadership sector must be prepared to face any rise in technologies, stopping fear.

4. More exploration is needed on the impact of women leadership on digital transformation and strategy in Lebanon and in different populations.

5.4 Implications:

In the previous chapters, it has been proven that there is an effect of women leadership with digital transformation on strategy; this research in turn explores the extent of DT of the Lebanese women leaders, where the study found: that there is a relationship between digital transformation and women leadership.

5.5 Limitations, Future Research, and Conclusion:

5.5.1 Limitations of the study

In this research, the researcher presented findings from ten participants in 5 Lebanese private sectors to gain a deeper understanding of how women's leadership and digital transformation and strategy are connected to each other. This study comes with several limitations; the first limitation is that the interviewees might not be specialists on leadership and strategy such as Blue Ocean Card and SWOT. Another limitation is that the researcher conducted ten interviews in the Lebanese private sector. The third limitation is that the researcher is conducting qualitative research and not quantitative research. It is essential to take into consideration the fact that developing a vision and strategy and pursuing comprehensive change are other limitations of this study.

5.5.2 Future Research:

This research study has some limitations that should be discussed and considered in future research. By providing a conceptual framework on women's leadership in relation to digital transformation and strategy, the researcher's aim is to encourage future studies to take a holistic grasp of DT processes. However, since the aspect of women's leadership is difficult, it is easier to look at specific elements of each along digital transformation and strategy over a shorter amount of time.

This research is a start of the focus of women leadership within the Lebanese private sector because it adds to the body of literature by scrutinizing the area that has not been explored a lot. In order to strengthen the study, proper leadership is required because the lack of awareness is widespread among those who suffer. Digital transformation will soon change our personal lives, professional lives, and the organizations where we work. Moreover, technologies matter because they improve existing businesses or create new ones. For the Lebanese private sectors to successfully cross the pathway of digital transformation, a link between the Blue Ocean Strategy, Balanced Scorecard, and other strategy frameworks is essential. Lebanese private sectors may create a more all-encompassing digital transformation strategy by using these methods and frameworks.

To improve the research, the Lebanese private sector can investigate the involvement of women leaders and how they improve the process of DT and new strategy. To overcome the challenges in DT, the Lebanese private sector must include some solutions, such as knowledge sharing.

Furthermore, to create a new design, the Lebanese private sector needs to have key stakeholders. Women's leadership along with digital transformation is considered an advantage because women in particular are more important than technology. In the future, the private sector will need to focus on the needs of people and how they can provide the necessary intervention.

To improve the methodology of the present study, a quantitative study should be implemented because the research would have important data that is essential for women leadership and DT.

Moreover, there should be an implementation of transformation technology because it shapes the DT, and leadership for the employees in the private sector firms because it leads to a new level of operational excellence.

The qualitative research on how digital transformation is interrelated with women's leadership in the private sector in Lebanon

reviewed in this paper through semi-structured interviews with leaders offers a more complex understanding of the challenges.

5.5.3 Conclusion:

In conclusion, a digitally connected Lebanon will be able to help improve the situation of the women leaders. However, it is important to note that technology is not enough to promote the development of Lebanon. Therefore, the leaders must grow through helping and improving elements. Thus, more research is needed on how women leadership is intertwined with digital transformation and strategy.

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