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The Impact of Employees' Digital Competence on Banking Digital Transformation, Case Study: Local Palestinian Banks

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Thesis Approval

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Declaration

I declare that all the work in this thesis titled “The Impact of Employees’ Digital Competence on Banking Digital Transformation, Case Study: Local Palestinian Banks” has been done to fulfill the requirements for the degree of master’s in strategic planning and fundraising and submitted to Arab American University Palestine. All work is original, and it has been written by me and I have duly acknowledged all the sources of information have been used in this thesis.

This thesis has also not been submitted to any other degree or university.

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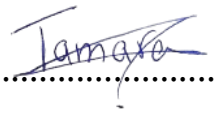
Signature: 

Date: 28-10-2024

Dedication

To My Beloved Family, My Parents and Siblings, your love and encouragement got me through the tough times and made the good times even better. You're not just my family; you're my biggest supporters and the best companions a person could ask for.

Being a big sister to Yara, Sara, and Rasheed has been a source of immense pride. Watching them grow, celebrating their triumphs, and being their go-to person has added much joy and purpose to my life.

A heartfelt acknowledgment to my mom, whose kind heart shines through even when she's being tough on me. I appreciate your belief in my capabilities and your unwavering support. Your tough love has been a guiding force, pushing me to achieve more than I thought possible.

To My Amazing Friends, you all brought an extra sprinkle of joy to this journey. Your encouragement and laughter turned the stressful moments into memorable ones.

This thesis is a heartfelt tribute to each one of you who played a part in this chapter of my life. Your love, encouragement, and friendship mean the world to me. I am grateful for the joy you've brought into my journey, and I look forward to many more shared moments ahead.

With all my love and gratitude

The Researcher

Acknowledgment

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A special and profound gratitude is extended to the Palestine Monetary Authority, as well as the employees and HR department of Palestinian Local Banks, whose support was instrumental in the data collection process, leading to the results presented in this study.

I express my gratitude to everyone who played a role in completing this study, and I pray that Allah accepts your assistance as a contribution to your good deeds.

The Researcher

Abstract

This study explored the impact of employees' digital competence on banking digital transformation in Palestinian local banks, utilizing a mixed-methods approach. The population included willing local Palestinian banks employees, with a sample size of 357 participants selected through stratified random sampling. Data were collected via an electronic and hand-distributed questionnaire and a semi-structured interview with the Palestine Monetary Authority. The findings revealed a notably high digital competence among local Palestinian Banks employees. Digital knowledge digital attitude emerged as a strong driver of digital transformation. Digital skills also contributed but had a subtle effect, suggesting the influence of additional organizational and strategic factors. Demographic variables like gender, age, academic qualifications, and experience do not significantly affect digital competence or the digital transformation, emphasizing the Palestinian local banks' inclusive digital culture. However, job level did impact digital competencies and transformation, likely due to senior employees' greater involvement in strategic decisions. The study concludes with comprehensive recommendations for interested researchers and governing authorities, suggesting potential areas for further investigation.

Key Words:

Digital Competence, Digital Knowledge, Digital Skills, Digital Attitude, Digital Transformation, Digital Orientation, Digital Intensity, Digital Maturity, Local Palestinian Banks.

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List of Abbreviations

D.C	Digital Competence
D.X	Digital Transformation
PMA	Palestine Monetary Authority

Chapter One

1.1 Research Introduction

The prevalent phenomenon of digital transformation has attained global significance, transcending industry boundaries with notable dominance. Businesses across diverse sectors are strategically leveraging digital technologies to enhance operational efficiency, reinforce the quality of customer experiences, and sustain competitiveness in an ever-evolving market scene.

This widespread influence isn't exclusive to large enterprises; small and medium-sized businesses are also acknowledging the imperative of incorporating digital tools for sustained relevance. As technological advancements continue to shape the business environment, fostering a corporate culture centered on continuous adaptation and learning becomes imperative. Therefore, cultivating a workforce adept in technology, promoting digital literacy, and investing in state-of-the-art solutions are pivotal measures for ensuring enduring success. The ongoing trajectory of digital transformation, characterized by its comprehensive impact, emphasizes the significance of staying attuned to emerging trends and proactively navigating the ever-changing digital landscape. (Strietska-Ilina et al., 2021)

In the last few years, several changes have been introduced to the financial services scene, resulting from the shifts in the regulatory frameworks, and the wide integration of new technology and digitalized facilities. The objective of this digitalization endeavor is to enhance existing banking services through the implementation of cutting-edge technological solutions, safeguarding the interests of financial institutions, customers, and the state (Yulia Viktorovna et al., 2019). Scholars oppose that this revolution is fostering

the emergence of an innovative business model characterized by intense competition for digital banking services, access to extensive data sources, and substantial investments in advanced technologies to counter cyber risks (Votintseva et al., 2019).

Amidst these transformative developments, the banking sector stands is considered as a leader in the digital transformation scene, strategically embracing cutting-edge technologies to optimize operations, enrich customer interactions, and uphold competitiveness in a rapidly evolving financial landscape. Online platforms, smartphone apps, and electronic payment methods now dominate the modern banking experience, providing users with unparalleled accessibility and convenience. The digital revolution highlights how important it is for financial institutions to maintain on top of technological advances, match services to evolving customer demands, and guarantee the security and integrity of financial transactions. A proactive and planned approach to technology adoption is necessary for navigating this digital landscape. This is important for both sustainability and for strengthening their position in the dynamic financial services industry.(Shawa, 2022)

Recognizing the novelty and relevance of the digital transformation theme, the Arab American University at Palestine organized the first digital transformation conference in May 2023. One of the discussion panels focused on the nature of digital transformation in the Palestinian banking sector. Referencing the news article that was published, it was highlighted that digital transformation in the banking sector has emerged as a mechanism, not only to enhance citizens' accessibility to banking services but also to streamline operations and expedite financial transactions. (“Digital Transformation In The Banking Sector In Palestine Conference,” 2023)

The researcher also tackled these concerns through an interview which was held with a representative from the Palestine Monetary Authority (PMA), where it was concluded while the Palestinian banking sector is in the emerging stages of digital transformation, a strategic impulse exists to embrace innovation, address challenges, and strengthen digital competencies. The collaborative efforts between the PMA and banks, coupled with regulatory influence and forward-looking initiatives, underscore a shared commitment to shaping a digitally mature financial landscape in Palestine.

Due to these impactful transformative efforts, individuals within the workforce will find themselves motivated and driven to consistently nurture and enhance their digital skill set. This imperative arises from the need to adeptly navigate and respond to the ever-changing array of tools and competencies demanded by the dynamic landscape (Trias Pinto & Gendre, 2017). In this rapidly evolving professional environment, the proactive cultivation of digital skills becomes not only a necessity for individual career growth but also a strategic imperative for organizations aiming to stay competitive and innovative in the face of technological advancements.

Building digital competences becomes a key component when people and businesses set out on this path of digital transformation. Gaining expertise in fields like cybersecurity, and data analysis is essential for keeping up with market developments and ensuring the success of digital projects as a whole. Banks in particular are realizing how important it is for their employees to be digitally literate in order to promote innovation, stay ahead of new technology, and maintain a competitive advantage. Investments in mentoring programs, training courses, and ongoing education opportunities are encouraged by this recognition, thereby creating a climate in which digital skills are not only recognized but actively developed.(Awwad et al., 2024)

The need for ongoing education and adaptability in response to evolving digital competencies is still critical in today's work environment. As technology is advancing so quickly, it is essential for people to make a commitment to lifelong learning in order to fully utilize digital tools for both individuals and organizations. Adopting a culture of digital fluency becomes a proactive approach for long-term success in the dynamic digital ecosystem, rather than only a reaction to pressing demands. (Awwad et al., 2024)

This research, therefore, aimed to explore the impact of Palestinian local bank employees on the digital transformation of these banks, offering valuable insights into the ongoing discourse on digital transformation in the Palestinian banking sector.

1.2 Research Problem

Banks in Palestine have undergone a profound transformation by integrating digitalization into their development strategies, which led financial services to be more diverse, competitive, efficient, and inclusive. This phenomenon had shown great benefit during the COVID-19 pandemic, as different banks started modifying their mobile applications, banking websites, and their services to be able to help their customers without the need for any personal interaction; especially since most of the branches were closed in some cities.(Shawa, 2022)

The development of digitalized financial services and the updates on mobile applications are still ongoing even after the pandemic. However, there are not enough studies discussing the effect employees' digital competencies have on this huge transformation that is ongoing in the Palestinian banking sector.(Tikam & Hinn, 2023)

The Palestinian banking sector must make efforts to understand how their employees' digital competency affects this digitalization change to the overall success of the process.(Awwad et al., 2024)

This study aimed to contribute to a comprehensive understanding of the pivotal role of employees' digital competence in shaping the digital transformation future of local Palestinian banks.

1.3 Research Objectives

The study aimed to achieve several objectives, including evaluating the impact of employees' digital competencies on the digital transformation of Palestinian local banks and understanding the extent to which these competencies shape the digital landscape.

O1: To determine the extent to which employees' digital knowledge affects the digital transformation of local Palestinian banks.

O2: To examine the contribution of employees' digital skills to the digital transformation of local Palestinian banks.

O3: To explore the influence of employees' digital attitude on the digital transformation of local Palestinian banks.

O4: To explore if the local Palestinian banks employees' digital competence is affected by the employees' demographic variables (Gender, Age, Academic Qualifications, Job Level, and Years of Experience).

O5: To evaluate the employees' demographic variables (Gender, Age, academic qualifications, Job Level, and Years of Experience) effect on the digital transformation of local Palestinian banks.

1.4 Research Questions

To accomplish the above-stated objectives, the research addressed specific questions, such as how employees' digital knowledge, skills, and attitude influence the digital orientation, maturity, and intensity of local Palestinian banks, and whether there is an influence of the competence of employees and the overall digital transformation of the banking sector within the Palestinian context.

Q1: What influence does employees' digital knowledge have on the digital transformation of local Palestinian banks?

Q2: What roles do employees' digital skills play in shaping the digital transformation of local Palestinian banks?

Q3: What is the impact of employees' digital attitude of employees on the digital transformation of local Palestinian banks?

Q4: Are the local Palestinian banks employees' digital competence affected by the employees' demographic variables (Gender, Age, Academic Qualifications, Job Level, Years of Experience)?

Q5: Do the employees' demographic variables (Gender, Age, academic qualifications, Job Level, Years of Experience) affect the digital transformation of local Palestinian banks?

1.5 Research Hypotheses

The research attempted to assess the validity of a set of null hypotheses, including whether there is no statistically significant impact of employees' digital knowledge, skills, and attitude on the digital orientation, maturity, and intensity of local Palestinian banks. The hypotheses were as follows;

H1: There is no statistically significant impact of employees' digital knowledge on the digital transformation of local Palestinian banks.

H2: There is no statistically significant impact of employees' digital skills on the digital transformation of local Palestinian banks.

H3: There is no statistically significant impact of employees' digital attitude on the digital transformation of local Palestinian banks.

H4: There is no statistically significant impact of employees' demographic variables (Gender, Age, Academic Qualifications, Job Level, Years of Experience) on local Palestinian banks employees' digital competence.

H5: There is no statistically significant impact of employees' demographic variables (Gender, Age, Academic Qualifications, Job Level, Years of Experience) on the digital transformation of local Palestinian banks.

1.6 Previous Literature

In this section, the researcher discussed and presented an overview of the relevant studies and literature related to the impact of employees' digital competence on banking digital transformation. While no studies addressed the same variables, and the impact were found; there were plenty of studies that recognized the importance of researching digital competency and/or digital transformation in the banking sector;

1. Norveel et al. (2022)delved into fundamental digital competencies, including navigating spreadsheets and utilizing word processing tools and email for work-related tasks. The research followed a case study method in gathering data, mainly by a test measure taken by 213 employees who worked in one of the banks in the Norwegian banking sector employee, and 10 semi-structured phone

interviews. The main outcomes of this research were that employees had lower-than-expected digital competency, but after training, their overall skills improved significantly. This improvement can lead to more enjoyable tasks and a greater willingness to adopt new technologies.

2. Shehadeh and Al-Otoom (2020) sought to gain insights into the digital evolution that took place within Islamic banks in Jordan. It examined the concept of digital transformation, delving into its benefits, challenges, and associated risks. Additionally, the study explored the adoption of modern digital technologies and assessed the level of digital maturity in Islamic banks operating in Jordan. By utilizing a descriptive-analytical approach, data were collected through a questionnaire distributed among 68 employees across four Islamic banks. Based on the findings, the study suggested that Islamic banks should establish a well-defined strategy for digital transformation that prioritizes innovation and competition while adhering to the principles of Islamic finance. It emphasized the importance of effectively managing the risks associated with digital transformation and addressing any potential risks stemming from modern technologies, particularly those that pose a threat to the stability of Islamic banks and the financial sector as a whole.

3. Rashwan and Kassem (2020) investigated how digital transformation affects the efficiency of banks' performance, their ability to attract investments, and overall financial stability. The study specifically focused on banks operating in the Gaza Strip and collected data through a 130-survey questionnaire that was distributed to Branch managers, Internal Auditors, and Accountants. The findings revealed

that digital transformation plays a crucial role in improving banks' performance and attracting investments.

4. Alam (2022) studied how digital transformation influenced the competitive advantage of banking services from the viewpoint of customer service officials in the banking sector in southern Upper Egypt. The research aimed to identify the different aspects of digital transformation, such as formulating a strategy for digital transformation, fostering a culture of digital transformation, and meeting the associated human, technical, and procedural requirements. It followed a descriptive-analytical approach, with data being collected through a questionnaire administered to a sample of 150 customer service officials selected through stratified random sampling.

5. Hamada (2022) explored how digital transformation impacts the financial performance of Egyptian commercial banks listed on the Egyptian Stock Exchange. The study sought to establish a connection between the fundamental aspects of digital transformation and the financial performance of these banks, while also examining the significance of digital transformation in enhancing financial outcomes. The results indicated a positive and statistically significant correlation between digital transformation and improved financial performance, underscoring the importance of prioritizing and expediting digital transformation initiatives within Egyptian organizations. It followed a descriptive-analytical approach, with data being collected through a questionnaire administered to a sample of 604 General Managers, Assistant General Managers, and Middle Managers of Egyptian commercial banks listed on the Egyptian Stock Exchange.

6. Chouaibi et al. (2022) assessed the impact of digital transformation on organizational performance, with a specific focus on the associated risks, using Tunisia as an example of an emerging economy. To test the research hypothesis, linear regressions were conducted on data obtained from 270 companies from the Institute of Arab Business Managers (IACE). The results revealed a growing interest in digital transformation, which contributed to improved organizational performance at the global level, while also highlighting the potential risks involved. The study also discussed the subsequent implications for costs and benefits of digital transformation, including the required management competencies and advanced technologies needed to achieve the desired outcomes.

7. Campanella et al. (2023) examined the impact of digital transformation on the European banking sector by focusing on the adoption of influential technological tools and their effect on the business model, particularly in relation to human capital and capital intensity. The research aimed to bridge the gap by investigating the influence of digital transformation on human capital efficiency and intensity in the banking system. The findings, based on quantitative data collected from 1,250 European banks, indicated a fundamental transformation of the banking industry's core business model, resulting in improved efficiency and profitability. The evidence revealed a shift towards a more capital-intensive model, challenging traditional business practices, alongside an increase in the competency level and intensity of highly qualified human capital that drove the new model.

The current study aligned with (Alam, 2022; Campanella et al., 2023; Hamada, 2022; Norveel et al., 2022; Rashwan & Kassem, 2020; Shehadeh & Al-Otoom, 2020) in terms of investigating the impact of digital transformation in the banking sector. Similar to (Norveel et al., 2022), the current study aimed to explore the influence of digital competency on digital transformation in Palestinian local banks. Additionally, (Alam, 2022; Campanella et al., 2023; Hamada, 2022; Rashwan & Kassem, 2020; Shehadeh & Al-Otoom, 2020) share the aim of examining different dimensions of digital transformation, such as digital evolution, performance, and competitive advantage in various banking contexts. Moreover, (Chouaibi et al., 2022) studied the impact of digital transformation on the organizational performance of companies from the Institute of Arab Business Managers (IACE).

Methodologically, the current study utilized a mixed approach by distributing questionnaires to employees in Palestinian local banks and holding a semi-structured interview with the PMA. None of the previous literature engaged in such an approach. Noting that (Alam, 2022; Campanella et al., 2023; Chouaibi et al., 2022; Hamada, 2022; Rashwan & Kassem, 2020; Shehadeh & Al-Otoom, 2020) followed a quantitative approach by distributing questionnaires and analyzing its outcomes. In addition, (Norveel et al., 2022) employed a qualitative method, specifically semi-structured interviews, and standard tests, to gather data from employees in a Norwegian bank.

While these studies shared common research aims and methodologies, the current study focused on the impact of employees' digital competency on digital transformation in Palestinian local banks. Norveel et al. (2022) targeted employees in the Norwegian banking sector, Shehadeh and Al-Otoom (2020) examined Islamic banks operating in Jordan, Rashwan and Kassem (2020) investigated banks in the Gaza Strip, Alam (2022)

studied the banking sector in southern Upper Egypt, Hamada (2022) explored Egyptian commercial banks listed on the Egyptian Stock Exchange,and Campanella et al. (2023) examined the European banking sector. Each study focused on a specific target group within the banking industry to analyze the impact of digital transformation in their respective contexts. Additionally, Chouaibi et al. (2022) focused on companies affiliating with IACE in Tunisia.

By comparing and contrasting these various studies, researchers can gain valuable insights into the impact of digital transformation across different banking contexts and target groups. While previous research examined aspects such as digital competencies, digital evolution, efficiency, performance, and competitive advantage in various banking settings, there was still a gap in understanding the specific influence of employees' digital competency on digital transformation within Palestinian local banks.

1.7 Research Significance

This research investigated the impact of employees' digital competency on digital transformation within Palestinian local banks. By emphasizing the vital role of employee digital competence, encompassing digital knowledge, skills, and attitude, in shaping digital transformation elements such as digital orientation, maturity, and intensity in Palestinian local banks, the study adds both theoretical and practical significance to the existing knowledge landscape. The theoretical contribution lies in advancing our understanding of the factors influencing digital transformation, particularly within the unique context of Palestinian local banks. The research not only sheds light on the intricate dynamics of digital transformation but also identifies and addresses gaps in the existing literature, thereby enriching the theoretical framework in this field.

On a practical level, the research findings hold significance for decision-makers in the Palestine Monetary Authority (PMA) and Palestinian local banks. The insights derived from the study offer actionable guidance for strategic decision-making by providing a nuanced understanding of how employees' digital competency influences the adoption of digital technologies and overall digital transformation. Moreover, the emphasis on digital knowledge, skills, and attitude implies practical implications for human resource development, encouraging the design of targeted training programs to enhance workforce digital competence. Decision-makers can leverage these insights to benchmark the current state of digital transformation, identify areas for improvement, and develop strategies that enhance digital readiness. This research, therefore, not only contributes to theoretical advancements in digital transformation research but also equips the authoritative entities and local Palestinian banks with practical tools to navigate and excel in the evolving digital landscape.

Chapter Two

2.1 Introduction to Literature Review

The literature review section of this study thoroughly examines the existing body of knowledge on how employees' digital competence impacts digital transformation in the banking sector, with a specific focus on local Palestinian banks. As the banking industry undergoes rapid digital transformation, it is crucial to understand the role of employees' digital skills and capabilities in this process (Kitsios et al., 2021; Shawa, 2022). This literature review discusses the key theories, concepts, empirical studies, and best practices to provide insights into the factors that contribute to successful digital transformation in banking.

The importance of employees' digital competence in driving digital transformation cannot be underestimated. As technology continues to evolve and reshape the banking landscape, employees' abilities and knowledge become critical in facilitating a smooth transition to a digitally empowered banking environment (How Banks Can Build Their Future Workforce—Today, 2021; Unlocking Success in Digital Transformations, 2018). Understanding the factors that influence employees' digital competence and the impact it has on digital transformation efforts is essential for local Palestinian banks to effectively adapt to the digital era.

This literature review follows a thematic approach to organize extensive research on digital competence and banking digital transformation. It explores themes such as the definition of digital competence, its areas and learning domains, the importance of digital competence, the difference between digitization, digitalization, and digital transformation, the factors influencing banks' digital transformation, the adoption of

digital banking services, and digital transformation future trends and implications in the Palestinian context. By analyzing studies and best practices from international and Palestinian banking contexts, this review aims to provide valuable insights and guidance to local Palestinian banks as they embark on their digital transformation journey.

Additionally, this literature review aims to identify the gaps and unanswered questions in the existing literature. By recognizing these gaps, the study intends to contribute to the knowledge base and offer recommendations for further research specifically relevant to local Palestinian banks. Through a critical analysis of the literature, this review serves as a foundation for the subsequent sections of this study, guiding the research questions, objectives, and methodology employed to investigate the impact of employees' digital competence on banking digital transformation in local Palestinian banks.

2.2 Competence Definition

As summarized by Janssen et al. (2013), the concept of competence, initially introduced by White in the field of motivational psychology, has gathered attention in diverse disciplines, including educational science and business administration (White, 1959). Linguistic theory, notably advanced by Chomsky, further expanded the notion of competence by highlighting its role as a cognitive system underlying language acquisition (Anasse, 2021; Chomsky, 1965). Educational policy and pedagogical practice have shown a growing interest in establishing a definition for competence, as evidenced by comparative educational analyses conducted by the OECD (2002).

Competence is commonly defined as an organism's capacity to effectively interact with the environment (Perry & Hamm, 2017; White, 1959). Another prevalent definition, proposed by the OECD (2002), characterizes competence as the ability to successfully meet individual or social demands and perform activities. Additionally, different

conceptualizations of competence exist across regions, with "competence" in Britain and "competency" in America, each with its own implications regarding behavior or underlying personal characteristics (Janssen et al., 2013; Mitchelmore & Rowley, 2010).

Numerous academics have provided their interpretations and definitions of the term "competence". Schneider (2019) presented a thorough systematic literature review to explain the various definitions of “competence” as a concept. Schneider suggested that the term “Competence” can be defined and classified based on specific dimensions or components according to their theory, the purpose of the study, and the context it is applied to. However, it can be generally defined as a collection of observable and measurable “attributes” or “success factors” individuals must acquire for effective work performance (Wong, 2020). This definition was also confirmed through a figure built by Chouhan and Srivastava (2014), where they highlighted the success factors to include (1) knowledge, (2) skills, (3) self-concept, and values, (4) personal traits, and (5) Motives.

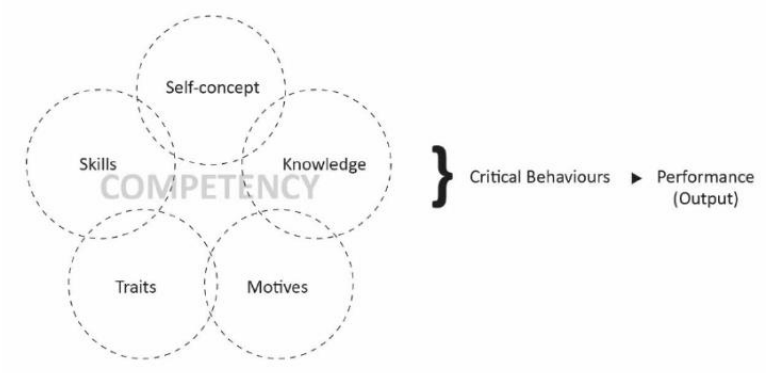

Figure 1: The general concept of competency/competence
- Source:(Chouhan & Srivastava, 2014)

From the latter, competence assures a complex nature determining a definition for its concept. The researcher concluded that in the business management field, competence encompasses both technical expertise (a deep understanding of the technical aspects,

principles, tools, and techniques) and the ability to demonstrate effective performance in the related areas.

2.3 Digital Competence (DC)

As technology has become increasingly embedded in our everyday lives, new practices emerged, bringing with them the need for new sets of competencies. Accordingly, researchers noted the importance of defining "Digital competence" to clarify and simplify this term in related studies. Researchers attributed great importance to this term due to its significance on institutional competitiveness by asserting that internal organizational knowledge serves as a sustainable source of competitive advantage in the long run. (Kokolek et al., 2019)

Norveel, Gonzales, and Presthus (2022) defined Digital Competence as the individual capacity to use and combine one's knowledge (i.e., know-what), skills (i.e., know-how), and attitudes (i.e., know-why) across three key areas of competence: technological, cognitive, and social. In other words, it involved the effective utilization and integration of these competencies in order to analyze, select, and critically evaluate information using new or existing information and communication technologies (ICT). This enabled individuals to investigate and solve work-related problems and further develop a collaborative knowledge base while actively participating in organizational practices within a specific organizational context. (Norveel et al., 2022, p. 184). This definition is also clarified in Figure 2 below adopted from the 48th Hawaii International Conference on System Sciences from research that was conducted by Vieru, Bourdeau, Bernier, and Yapo (2015).

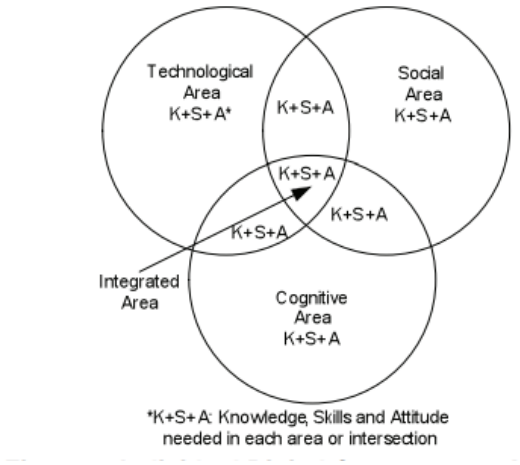

Figure 2: Individual Digital Competence: A Multi-area Conceptualization - Source:(Vieru et al., 2015)

In conclusion, digital competence (DC) can refer to the ability to confidently use, understand, and accept digital technologies (computers, smartphones, the internet, as well as knowing how to find and evaluate information online).

2.4 Digital Competence Areas

Vieru et al. (2015, p. 4683) put forward a framework for digital competence, as depicted in Figure 2, highlighting its multidimensional nature. This framework illustrated that digital competence (DC) encompasses three key areas and their integration. In the subsequent section, the researcher will thoroughly analyze and outline these areas.

2.4.1 Technological Area

According to Calvani et al., (2008) the technological area concerned having the flexibility to investigate and deal with issues and new technology environments. For instance, resolving issues when the ICT in use is ineffective, choosing the best ICT solution, and recognizing and utilizing the symbols and interfaces of certain ICT (Ferrari & Punie, 2012). Mainly, the skills in this area can revolve around the capacity to use standard software applications or specialized applications supporting business activities, the capacity to take

advantage of ICT opportunities, particularly those presented by the Internet, or the capacity to carry out the technical operations of digital instruments (Vieru et al., 2015).

In contrast, Cartelli (2010) argued that this area should focus on how people use digital resources and processes rather than what they must know and be able to do with technologies. This different approach was originally mentioned in Le Boterf and Bouillon's report in 1996. They explained that there is a need to analyze the effects new technologies have on mankind by shedding light on the concept of the active involvement of the people (Le Boterf & Bouillon, 1996).

2.4.2 Social Area

The social area is focused on matters like risk awareness, privacy, intellectual property rights, and social media exposure, as well as challenges connected to the ethical, responsible, and safe use of ICT (Ferrari & Punie, 2012). It is characterized by the interpersonal abilities an individual can need to use available ICT within an organization (Cartelli, 2010). Interpersonal skills are encompassed by the ability to build relationships with others and are influenced by personality traits and learned social strategies. In some contexts, it is referred to as people skills. The development and utilization of practical interpersonal skills especially with the use of ICT and the modern technologies enable individuals to effectively interact with others (Amadebai, 2020).

Consequently, the significance of effective communication, recognizing the potential and limitations of different media, and engaging in global collaborations are emphasized in the digital era. The ability to establish and maintain personal communication networks, expand social and professional connections beyond physical boundaries, and actively participate in digital activities empowers individuals to navigate the digital landscape

successfully, utilize technology for personal and professional growth, and thrive in an interconnected world. (Vieru et al., 2015)

2.4.3 Cognitive Area

According to Ferrari & Punie (2012), this area focused on accessing, organizing, and assessing information, encompassing tasks related to linguistic and numeric competencies in the digital realm. It entailed dealing with text, organizing data, evaluating information, and interpreting graphs (Educational Testing Service, 2007). The required abilities in this area involve selecting, interpreting, and evaluating data and information, in addition to critical thinking and problem-solving (Vieru et al., 2015).

Assistive Technology for Cognition (ATC) term can be discussed in this area; Best et al. (2013) formulated an article defining ATC as "The use of technology to extend human mental capacity" (Best et al., 2013, p. 1). Further, the researchers discussed recent developments in ATC, including the broadening of reminder contexts and advancements in micro-prompting devices. However, they mentioned that ethical considerations and the need for further research on ATC are a must regarding this new concept. (Best et al., 2013)

2.4.4 Integrated Area

From its name, this area represented an intersection between the three above-mentioned areas. It embodied the integration of the essential competencies necessary for collaborative work and required individuals to comprehend the potential of technologies that enabled information sharing and collaborative knowledge creation. This integration involved understanding how technologies can facilitate information sharing and collaborative knowledge building (Cartelli, 2010).

In summary, the integrated area of digital competence encompassed the adoption and utilization of ICT in organizational practices, collaborating to build new knowledge, and understanding the potential of technologies for information sharing and collaborative knowledge creation (Vieru et al., 2015).

2.5 DC Framework Essential Capabilities

Digital competence incorporated several essential capabilities to navigate the digital scene successfully, while incorporating the skills, knowledge, and attitudes required in each of the above-mentioned areas (Vieru et al., 2015). According to Harison & Boonstra (2009) the capabilities can be concluded as follows:

- Information Management: Accessing, organizing, and retrieving information effectively.
- Collaboration: Connecting with others and responsibly participating in online networks.
- Communication and Sharing: Using online tools while respecting privacy and netiquette.
- Creation of Content and Knowledge: Constructing insights and integrating existing knowledge.
- Ethics and Responsibility: Behaving ethically and being aware of legal frameworks.
- Evaluation and Problem Solving: Integrating technology, cognition, and social aspects to address needs and assess information.
- Technical Operations: Efficiently using digital tools.

Moreover, O'Keeffe (2020) affirmed and concluded the required capabilities to accomplish digital competence in a report published by the European Commission and the Joint Research Centre. The capabilities were categorized under five main categories, Information and data literacy, Communication and collaboration, Digital content creation, Safety, and Problem-solving, as presented in Figure 3 below:

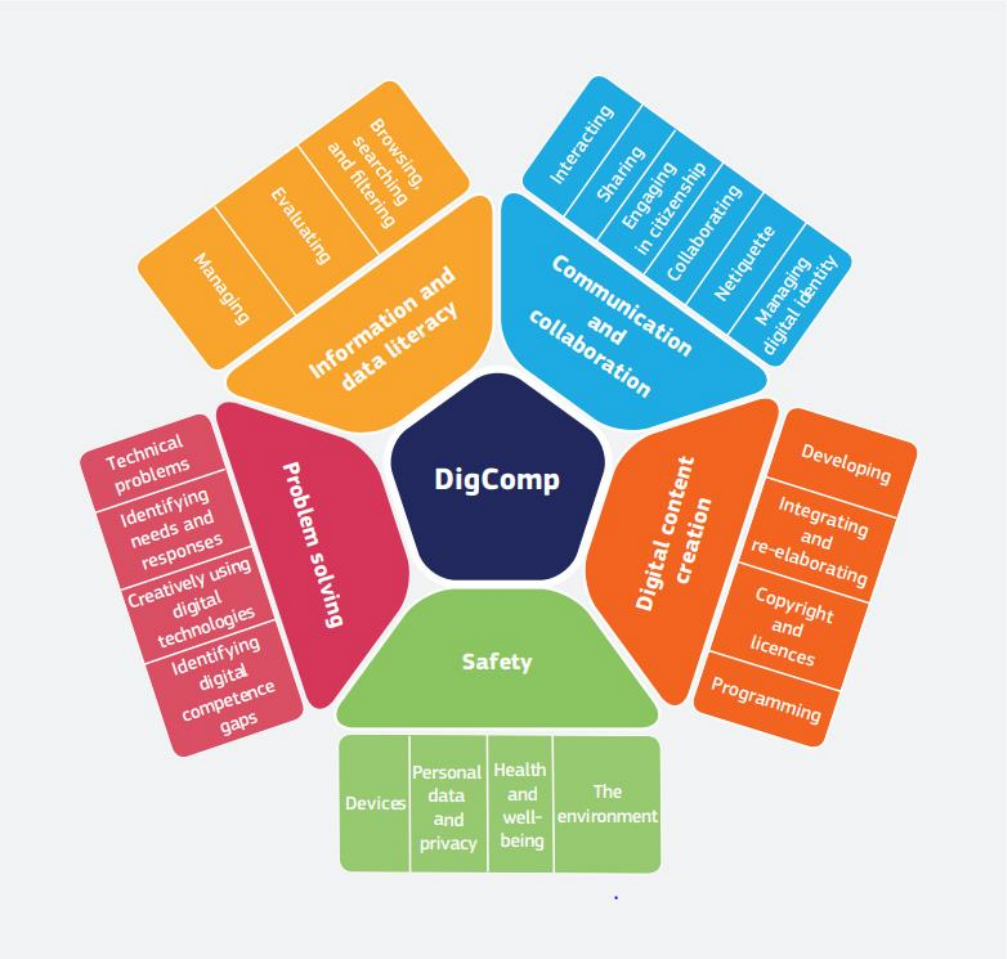

Figure 3: DC Capabilities Framework
- Source:(O'Keeffe, 2020)

2.6 Digital Competence Learning Domains

Digital competence learning domains consist of the knowledge, skills, and attitudes required to thrive in the digital age. These domains provided a framework for developing digital competence, empowering individuals to adapt and engage with digital

technologies in various contexts and enhancing their digital literacy for success in today's digital-driven world.

2.6.1 Digital Knowledge

According to the Merriam-Webster dictionary, knowledge as a concept is defined as an individual's acquaintance with a specific field of science, art, or technique. The dictionary also stated that it is a range of understanding of a significant matter ("Definition of Knowledge," 2023). Additionally, Davenport and Prusak (1998) defined knowledge as a dynamic blend of personal encounters, principles, situational details, and knowledgeable perspectives.

This domain referred to how literate is an individual with digitalization. The degree of digital literacy an individual had concerns the person's ability to locate, assess, and use information effectively. This included using that knowledge to generate new material, share it with others, and communicate it using the right digital channels. (Reddy et al., 2020)

Moreover, Ugliotti (2021, p. 218) defined digital knowledge as "A constantly evolving process of retrieval, organization, preservation and updating of the building knowledge in a digital environment considering both material and immaterial aspects."

Vattano (2022) considered digital knowledge as a method that concerned data collection. The author mentioned that this knowledge is becoming crucial in institutions, especially the capability of incorporating groups of digital information that significantly allows the development of a knowledge distribution based on networked and shared exploration.

Therefore, digital knowledge encompasses the continuous process of organizing and updating knowledge in a digital environment, as well as the successful use of a variety of digital tools and technologies to seek, analyze, produce, and share information.

2.6.2 Digital Skills

The second domain indicated the 21st century digital skills a person has. In his book, Banger provided a broad definition for business skills, he noted that these skills denoted the competence and capability to perform a specific task in the business domain with efficiency and achieve desired outcomes within specified constraints, such as time, resources, and managerial authority. (Banger, 2019)

However, the concept of digital skills was introduced by Marcolin et al. (2000), where they described it as the possessed individuals' abilities to effectively and proficiently navigate, utilize, and engage with information and communication technologies (ICT). Vicente & Lopez (2010) described it as the acquired ability to use information and communication technology and conduct successful online information searches. These definitions were also confirmed by Ala-Mutka (2011), as the author emphasized the importance of critical thinking to optimize the navigation of the digital technologies.

Further, in 2020, a unified definition for digital skills was presented. The authors explained that these skills referred to the ability to solve a problem in a creative method, and it consists of technical, information, communication, collaboration, critical thinking, creativity, and problem-solving skills. (van Laar et al., 2020)

To conclude, digital skills involve the competent application of knowledge to solve problems, process complex information, and effectively use information and communication technologies (ICT) in a critical and systematic manner. These skills, if

owned, enable individuals to navigate digital tools, think critically, and utilize ICT to accomplish tasks and engage with information.

2.6.3 Digital Attitude

Merriam-Webster dictionary defined an individual's attitude as a physiological condition that is prepared to react in a certain manner to a stimulus (such as an item, idea, or circumstance) ("Definition of Attitude," 2023). The final Domain is generally manifested as the views, convictions, and emotions people hold regarding their environment; all the same, Digital attitude is expressed by people's ease to absorb digital content. It reflects the degree of comfort to adopt new digital channels in their daily lives (ETHRWorld, 2022). Additionally, an individual's digital attitude can be assessed with the technology acceptance model (TAM). This model was founded in 1989 by Fred Davis and the final model (TAM 3) was formed by Venkatesh and Bala in 2008 (Lai, 2017). The model is considered one of the most popular theoretical models to be used to explain why markets adopt technology. It was first created for IT solutions (Viardot, 2015).

According to Lai (2017) the model was built on various variables which indicates an individual's choice of how and when to utilize the technology, when exposed to a new technology. However, the main variables were the following:

1) Perceived usefulness (PU): presenting the extent to which a person believes that using a particular system would enhance their ability to perform their job. It refers to a person's perception of the technology's utility for its intended application. (Davis et al., 1989)
2) Perceived ease-of-use (PEOU): determined by the extent to which a person believes that using a specific system would be free from effort. If the technology

> is simple to use, then the obstacles have been removed. No individual is fond of anything if it is difficult to use and has a confusing interface. (Davis et al., 1989)

In conclusion, digital attitude refers to an individual's comfort and tendency in adopting and using digital material and channels, influenced by their perceptions of usefulness and ease-of-use.

2.7 Digital Competence Assessment

The researcher attended to DigComp 2.1 framework (Carretero et al., 2017) for assessing the digital competence of the bank's employees of the Palestinian local banks. This framework categorized the proficiency / digital competence levels into eight different levels, furthermore, the researchers also provided a comparison between DigComp 1.0 and DigComp 2.1 frameworks to ensure a coherent and a full understanding of the different levels. This is illustrated in the table below:

Table 1: Proficiency - DC Levels
- Source: (Carretero et al., 2017)

Levels in DigComp 1.0	Levels in DigComp 2.1	Technological Area (Tasks Complexity)	Social Area (Autonomy)	Cognitive Area
Foundation	1	Simple tasks	With guidance	Remembering
	2	Simple tasks	Autonomy and with guidance when needed	Remembering
Intermediate	3	Well-defined and routine tasks, and straightforward problems	Self-dependent	Understanding
	4	Tasks, and well-defined and non-routine problems	Independent and according to individual needs	Understanding
Advanced	5	Different tasks and problems	Guiding others	Applying
	6	Most appropriate tasks	Able to adapt to others in a complex context	Evaluating
Highly specialized	7	Resolve complex problems with limited solutions	Integrate to contribute to professional practices and to guide others	Creating
	8	Resolve complex problems with many interacting factors	Propose new ideas and processes to the field	Creating

As DigComp 2.1 does not base a reflection on the three learning domains (knowledge, skills, and attitude), Vuorikari et al. (2022) developed DigComp 2.2 as an inclusive framework to be used by researchers when evaluating individuals' digital competence. DigComp 2.2 maintained the same structure of the proficiency levels while adding more comprehensive examples for DC learning domains.

The learning domains were allocated on the five capabilities framework presented in figure 3 above. DigComp 2.2 provided multiple examples, however, the researcher

summarized the examples and noted the most suitable ones for the bank employees' situation. The examples are summarized in table 2 below:

Table 2: DigComp 2.2 examples for DC learning domains - Source:(Vuorikari et al., 2022)

Digital Capability (Figure 3)	**Knowledge**	**Skills**	**Attitude**
Information and data literacy	1- Aware that many internet apps and mobile services collect personal, behavioral, and contextual data, used to monitor users' online and offline activities. 2- Recognizing data patterns in various forms like images, sounds, clicks, and behaviors enhances online services, enabling targeted advertisements.	1- Capable of effectively using non-textual formats like hyperlinks, understanding and navigating various media and data representations. 2- Proficient in collecting digital data through tools like online forms and presenting it accessibly, possibly organizing it with headers in tables for clarity. 3- Utilizes basic statistics to analyze structured data in spreadsheets, creating visualizations like graphs and charts to interpret and communicate patterns and trends.	1- Prioritizes privacy-preserving tools, mindful of privacy settings, opting for secure search engines, and taking steps to safeguard personal information online. 2- Exercises caution and consideration before clicking links, assessing potential risks or consequences associated with accessing specific websites or content. 3- Values transparency in data presentation, ensuring accurate representation and clear sourcing to promote reliability and trust. 4- Maintains vigilance in evaluating complex data representations, critically analyzing visuals for accuracy and potential biases.

Communication and collaboration	1- Acknowledges the suitability of communication tools and services (e.g., phone, email, video conference) for various situations (e.g., synchronous or asynchronous communication), considering audience, context, and communication purpose. 2- Comprehends the duties of an online facilitator in structuring and guiding discussion groups, ensuring productive and engaging online interactions. 3- Aknoweledges the importance of both traditional media (e.g., newspapers, television) and new media forms (e.g., social media, the internet) in societies, understanding their distinct roles and impact. 4- Appreciates the benefits of digital tools for remote collaboration, saving time and integrating skills regardless of location. 5- Understands the significance of effective social skills in co-creating digital content,	1- Proficient in utilizing videoconferencing features, including session moderation and audio-video recording. 2- Capable of effective asynchronous communication using digital tools for reporting, sharing ideas, providing feedback, scheduling meetings, and communicating milestones. 3- Knows how to use digital tools for informal communication with colleagues to foster and maintain social relationships. 4- Values balancing asynchronous and synchronous communication to minimize video conferencing fatigue and respect coworkers' preferred hours. 5- Knows how to share digital content across devices and selectively control the audience, ensuring privacy and security. 6- Understands the importance of digital engagement for the	1- Demonstrates a willingness to adjust and employ an appropriate communication strategy based on the situation and the digital tool being used. 2- Shows openness to sharing digital content that is valuable and relevant to others. 3- Is receptive to modifying administrative routines and embracing digital procedures. 4- Acts in a trustworthy manner to contribute to group goals when collaborating in the co-creation of resources or knowledge. 5- Is cautious and mindful about maintaining the privacy of personal information, both their own and that of others.

compensating for online communication limitations. 6- Grasps the importance of non-verbal messages like smiley faces and emojis in digital environments, noting their interpretation can vary across cultures. 7- Recognizes that adapting behavior in digital environments relies on the relationship with other participants (e.g., friends, coworkers, managers) and the purpose of the communication. 8- Understands that inappropriate behaviors in digital environments can lead to long-term negative impacts on both social and personal aspects of one's life. 9- Knows methods to control online tracking, like private browsing, cookie deletion, and opting out of personalized ads. 10- Understands the concept of "digital identity" and its implications in the online world.	sustainable development of society. 7- Proficient in collaborative digital task planning and sharing within social or professional groups, employing tools like digital calendars. 8- Skilled in utilizing digital tools to streamline and improve collaborative processes. 9- Knows how to block or filter out unwanted and disturbing messages or emails. 10- Identifies and acknowledges hostile or derogatory online messages or activities targeting specific individuals or groups, such as hate speech. 11- Proficient in creating and managing personal and professional profiles in digital environments for various purposes.	

Digital content creation	1- Understands that digital content encompasses various formats like audio, images, text, videos, and applications, stored in different file formats. 2- Recognizes that digital content, goods, and services may be protected by intellectual property rights. 3- Is aware of mechanisms to control access to digital content, including password protection. 4- Understands that program execution requires time and hardware resources, varying based on input size and problem complexity.	1- Understands the significance of selecting the right format for digital content based on its intended use, such as choosing between editable or non-modifiable formats. 2- Can create digital content to support personal ideas and opinions. 3- Capable of creating infographics and posters that combine information, statistics, and visuals using available applications or software. 4- Able to recognize input and output data in basic programs.	1- Willing to engage in iterative design processes to innovate using existing digital content, involving creating, testing, analyzing, and refining ideas. 2- Respects the rights of others, including ownership and contract terms, when handling digital content.
Safety	1- Recognizes the importance of using unique and strong passwords for various online services to reduce the impact of a compromised account. 2- Understands the importance of implementing measures to protect devices and restrict unauthorized access to sensitive data.	1- Understands the importance of a robust cyber-hygiene strategy for passwords, including choosing strong and secure passwords and managing them securely. 2- Can identify suspicious email messages that seek sensitive information or may contain malware.	1- Takes precautions to avoid leaving computers or mobile devices unattended, especially in public places or shared workspaces. 2- Recognizes the need to evaluate biometric identification methods for potential safety implications. 3- Exercises caution when using open Wi-Fi networks for financial

	3- Acknowledges the purpose of a firewall as a security measure to block specific types of network traffic and mitigate potential risks. 4- Is aware of various risks in digital environments, such as identity theft, scams, and malware attacks. 5- Recognizes the importance of secure electronic identification for safer sharing of personal data in transactions.	3- Knows basic security measures for online payments, such as avoiding transmitting scanned credit cards or sharing PIN codes. 4- Recognizes the importance of implementing low-tech strategies like shutting down devices, minimizing printing, and repairing components to protect the environment.	transactions, adopting self-protective measures to reduce risks. 4- Feels confident in conducting online transactions after implementing appropriate safety and security measures. 5- Actively integrates digital technologies in ways that support the sustainability of society and the environment, mindful of their impact on consumption and lifestyle.
Problem solving	1- Familiar with the primary functions of commonly used digital devices. 2- Understands different reasons why digital devices may experience internet connectivity issues. 3- Aware that online transactions include both commercial (e.g., e-commerce) and consumer-to-consumer transactions (e.g., sharing platforms) for goods and services. 4- Recognizes the potential of digital technologies and electronic devices to	1- Capable of identifying and resolving camera and microphone issues that may arise during online meetings. 2- Proficient in utilizing digital technologies to transform ideas into actionable outcomes. 3- Able to reflect on personal competency levels, develop plans, and take proactive measures to enhance skills and knowledge.	1- Possesses a strong inclination to engage in continuous learning, staying updated and informed about AI and digital technology. 2- Open to seeking guidance and requesting assistance in learning how to use new applications. 3- Maintains a positive outlook despite rapid technological advancements, recognizing there's always more to learn about technology utilization. 4- Recognizes the importance of valuing

innovate new processes and products, adding value in social, cultural, and economic contexts. 5- Recognizes that digital competence involves confidently and responsibly using digital technologies to achieve various goals. 6- Understands that challenges with digital technologies can stem from technical issues, lack of confidence, competency gaps, or inadequate tool selection. 7- Aware that online learning offers opportunities like video tutorials, seminars, blended courses, and MOOCs to stay updated on digital technology and develop new skills.		lifelong learning, viewing the use of digital technologies as an ongoing journey requiring openness, curiosity, and perseverance.

The table reflects the most appropriate digital capabilities a bank employee should acquire to attain digital competence, as these skills were summarized from a total of 259 examples proposed and submitted in a report written Vuorikari et al. (2022) and categorized based on the proficiency level the research assessed. In conclusion, each proficiency level might have a different capability concerning which area it falls under and to what learning domain it refers to.

2.8 Digital Transformation (DX)

2.8.1 Digitization, Digitalization, and Digital Transformation

2.8.1.1 Digitization

In response to the growing need for digital industry adaptation, organizations are increasingly embracing the transition to digital systems for managing their records. Recognized as the initial step in this process, digitization plays a crucial role in enabling organizations to streamline the storage, retrieval, and management of their records (Katuu, 2020). By facilitating easier access to information and enhancing operational efficiency, digitization contributes to the overall effectiveness and accessibility of records within institutions (Katuu, 2020). According to Gartner Glossary, Digitization is the process of converting from analog to digital form, which is also referred to as digital enablement, involves transforming an analog process into a digital format without making any substantial changes to the process itself. (*Definition of Digitization*, 2023)

In reference to a graph that was designed and shared on EDUCAUSE Review (Consider the Three Ds When Talking about Digital Transformation, 2020), the searcher can recognize two important tasks that should be accomplished to achieve digitization, which are digitizing and organizing information. Figure 4 below is the representation of the graph:

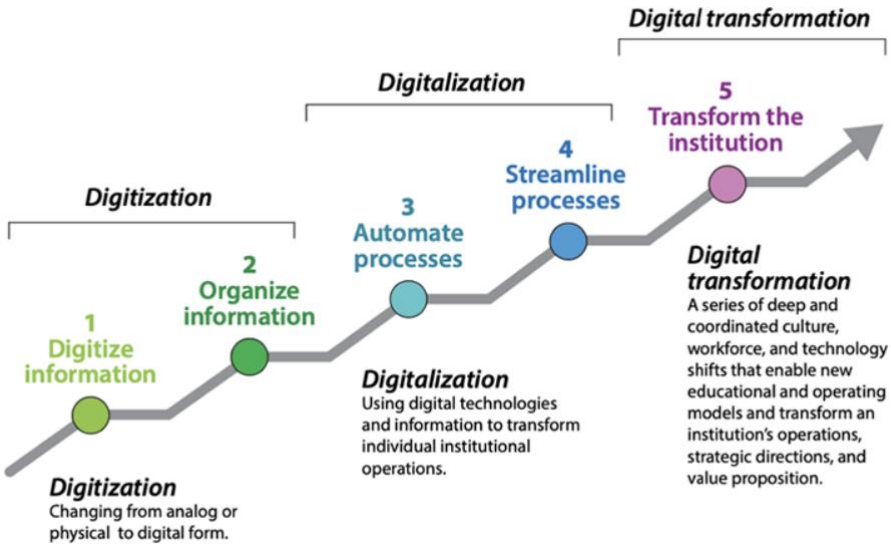

Figure 4: Digitization, Digitalization and Digital Transformation
- Source:(Consider the Three Ds When Talking about Digital Transformation, 2020)

2.8.1.2 Digitalization

Digitalization is defined as the act of increasing the level of automation in processes by incorporating digital technologies. However, it goes beyond simply gathering and organizing data (Mergel et al., 2019). Digitalization involves analyzing and deriving meaning from that data to create added value. It leverages digitized information to fundamentally transform business processes, opening new avenues for generating revenue and creating valuable opportunities (*The Differences Between Digitization, Digitalization, and Digital Transformation in Manufacturing*, 2021). Further, in reference to figure 4 (shown above) there are two main tasks to be performed under digitalization which are automating and streamlining the processes within an institution.

In addition, Kbc (2020) noted that digitalization allows a process operation to expand its problem-solving reach beyond the confines of an institution; through involving the assistance, knowledge, and technologies of on organization's essential partners, customers, and suppliers. Each of these stakeholders can contribute their unique expertise and experience to enhance the capabilities and resources of the institution.

2.8.1.3 Digital Transformation

Digital transformation encompasses the widespread integration of digital technology, impacting all facets of human society. It extends beyond businesses to sectors like art, science, mass communication, government, and education, and has a profound influence on companies offering online services or products. (Papadopoulou, 2020)

Digital transformation is defined as the capacity of a company to effectively respond to and make use of emerging technologies and methods both in the present and in the future (Herbert, 2017). The concept can also be described as a significant and far-reaching societal advancement. It involves the comprehensive integration of digital technologies and processes that bring about fundamental changes across various aspects of society (Leodolter, 2017). Moreover, Bloomberg (2018) noted the great difference between digitization and digital transformation. He concluded that Digital transformation is the complete reconfiguration of an organization using digital technologies to improve how it operates, serves customers, and achieves goals in the modern digital landscape. It involves rethinking strategies, processes, and operations to become more innovative, efficient, and customer focused. The implementation of DX is characterized by organizational and strategic structural transformation. The enhancement of the business model, teamwork, and culture are deemed to be daily processes that go into DX, according to Warner & Wäger (2019). Additionally, digital transformation can be seen as a program that focuses on prioritized digital initiatives centered on business processes, rather than isolated solutions or proof of concepts (*The Differences Between Digitization, Digitalization, and Digital Transformation in Manufacturing*, 2021).

Another definition was introduced in the 54th Hawaii International Conference on System Sciences by Abhari et al. (2021, p. 5801) describing DX as “the utilization of digital

technologies to radically improve business models or processes in order to enhance business performance.” The studies emphasized that DX is concerned with bringing out the essential changes within an institution to improve its structure through combining information, information technology, communications, and connectivity technology. (Abhari et al., 2021)

Furthermore, Gong & Ribiere (2021)conducted research to develop a unified definition for Digital Transformation. Along their paper, they explained that in the early literature DX was misused and had a misleading definition equivalent to the definitions of digitization. The authors established a conceptual framework to reach for a proper and a coherent definition for Digital transformation, as they concluded that DX is “A fundamental change process, enabled by the innovative use of digital technologies accompanied by the strategic leverage of key resources and capabilities, aiming to radically improve an entity and redefine its value proposition for its stakeholders.” (Gong & Ribiere, 2021, p. 12).

Shanti et al. (2022) noted that Digital transformation is more than just implementing the latest information communication technologies. It encompasses a broader perspective that includes the necessary skills and abilities for effective and efficient operations, while some narrower definitions focus on specific aspects like strategic change, performance, or culture. In essence, digital transformation involves utilizing digital technologies to optimize processes, improve efficiency, and foster organizational growth. It requires a holistic approach that considers technological advancements, the development of digital skills, and the cultivation of a supportive company culture.

2.8.2 Digital Transformation in Palestine

Palestine was one of the early adopters in planning for a digital government, as it formed The Ministerial Committee for E-Government under the guidance of President Abbas in 2005 (Ibaid, 2021). The committee developed a thorough Strategic Plan for E-government that aligned with the Palestinian Authority's vision of creating a government that empowers citizens to actively engage in governance, fosters connections between citizens, private enterprises, and institutions to stimulate economic growth and address community issues, and ultimately delivers tangible public value through citizen-centric government services(OECD, 2011). However, The divide between the West Bank and Gaza Strip since 2005 led to separate governing bodies in Palestine, impacting the motivation and focus on digital government reform. Political instability caused by Israeli attacks and internal conflicts further hindered the adoption of digital government as a primary reform for improving government services. The fragmented structure and lack of centralized vision in planning digital government transformation in Palestine make these efforts susceptible to changes in the political landscape (Ibaid, 2021).

In 2022, the digital transformation process in Palestine witnessed an improvement, as the Palestinian government officially launched an e-government services system called “My Government”. The Technical Committee has completed the necessary work to build and operate the system, which offers various services such as driver's license renewal, health insurance fee payment, property tax, and birth registration (WAFA Agency, 2022). Moreover, The Palestinian Monetary Authority stated in 2020 their intention to offer electronic payment services to citizens, with an aim to enhance the range of digital services provided by government and non-governmental entities. Previously, there was no established means for conducting complete online financial transactions, which posed

limitations for government agencies and businesses wanting to offer fully digital services. The introduction of Palestine's e-payment infrastructure also highlighted the significant potential of public-private partnerships in driving such initiatives forward (PMA, 2020).

According to Dr. Nawar Al-Awa (2023) paper that was presented in the 1st Digital transformation conference, it is clear that Palestine is categorized as a high performing country regarding digital transformation performance when compared with other countries in the Ara Region, noting that the financial sector digital maturity percentage allocated to 31%, she also demonstrated that Palestine's digital performance has increased to reach 23% as of 2022. (Al-Awa, 2023)

Hamzeh Ghosheh (2022) asserted the importance of a supportive regulatory framework that encourages innovation while effectively managing risks of digital financial services (DFS) in Palestine, and due to the fact that the Palestine Monetary Authority (PMA) plays a significant role in promoting financial inclusion and facilitating the digital transformation of the financial sector, the regulatory sandboxes established by it and Palestine Capital Market Authority (PCMA) supports innovation and provide platforms for entrepreneurs to test their products viability. He also touched on the transformative potential of InsurTech in the insurance industry through personalized policies and the use of behavioral data.(Ghosheh, 2022)

In spite of the current transformative nature, a delay in the adaptation of DX in Palestine is triggered by multiple factors. Israeli Occupation imposed policy of isolation has a significant impact on achieving digital transformation in Palestine. In the West Bank, restrictions on land access and isolation between districts have made it difficult to implement digital infrastructure and services. Israel's control over Area C has resulted in

poor digital infrastructure and limited services. The isolation of East Jerusalem from the rest of the West Bank prevents the Palestinian government from implementing digital initiatives in that area. The Israeli blockade on Gaza restricts the implementation of projects like improved mobile services. Moreover, Israeli border control imposes restrictions on importing necessary digital equipment, further hindering the development of digital infrastructure. Collectively, these factors hinder the progress of digital transformation in Palestine by limiting access to resources and obstructing the establishment of digital services (Ibrahim, 2021). In addition to the Israeli Occupation, Maysoun Ibrahim (2021) notes other challenges to the digital transformation process, as stated in figure 5 below.

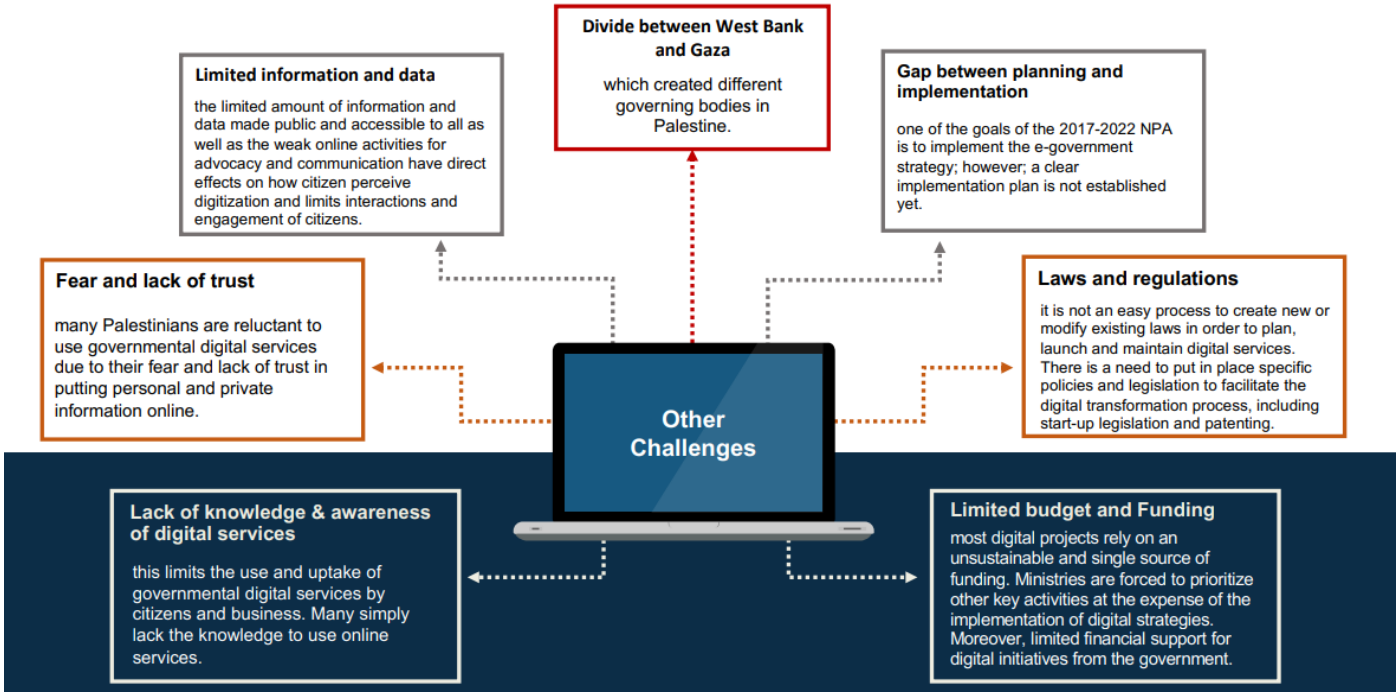

Figure 5: Other Challenges Facing Palestine's Digital Transformation Process - Source:(Ibrahim, 2021)

2.9 Digital Transformation in the Banking Sector

Researchers took on different approaches when studying digital transformation in the banking sector, through examining various aspects such as the factors that drive digital

transformation, the specific activities and operations involved in the process, and the outcomes or impacts of such transformation. To provide a comprehensive understanding, many academics analyzed and highlighted examples of banks that have successfully undergone digital transformation. By focusing on these successful cases, they were able to describe and explain the subject matter while offering insights into effective strategies and approaches for achieving digital transformation in banking. Additionally, researchers pointed out that most of the theoretical contribution in DX revolved around customer value and experience, activities and operations, strategic innovation, and new business model development (Krasonikolakis et al., 2020).

Moreover, Romanov & Khubulova (2022) indicated that digital transformation is becoming increasingly important as an indicator of a country's development, and the banking sector is playing a crucial role in driving innovative solutions. The adoption of digital technologies within the banking industry is vital for promoting economic progress and revolutionizing traditional banking practices. By embracing digitalization, banks can offer advanced services, streamline operations, and enhance the overall customer experience. The banking sector's position as a key facilitator of innovative solutions underscores its ability to leverage digital advancements and contribute to the overall growth and modernization of a country's economy.

Digital transformation in banking involves a fundamental shift in operations and customer engagement. It aims to enhance convenience, efficiency, and personalized experiences by leveraging new technologies and innovative models. Banks adapt to the digital age to meet evolving customer demands and remain competitive in the digital landscape (Intetics Inc., 2023).

Digital transformation in the banking sector has brought about significant changes, including the provision of paperless, branchless, and signature-less services. This transformation has revolutionized the way banks operate, offering customers convenient and efficient access to banking services around the clock, even during holidays. The increasing digitalization has led to a decrease in reliance on physical branches, resulting in the emergence of branchless banking and a surge in online transactions. The advent of digital banking platforms, such as mobile apps, tablets, and Internet banking, has played a pivotal role in enabling banks to deliver end-to-end services to their customers. These platforms eliminate the need for in-person interactions, allowing customers to conduct their banking activities seamlessly in a digital environment. Documents can be digitized, transactions can be securely authorized through electronic signatures, and customers can engage in e-learning, teleconferencing, and online trading through dedicated platforms. Additionally, digital stores offer a range of services, while electronic statements and mobile payments further enhance the convenience and accessibility of banking services (Kriebel et al., 2019; Yip & Bocken, 2018).

This comprehensive digital transformation in the banking industry encompasses a diverse array of practices and concepts, all aimed at providing customers with enhanced banking experiences. By embracing these digital advancements, banks are able to cater to the evolving needs of their customers, improve operational efficiency, and stay competitive in a rapidly changing digital landscape (Cook, 2023).

Furthermore, according to a report paper published by Deloitte (Deloitte, 2020) digital transformation has gained greater significance in the banking sector, as well as in other industries, particularly in the aftermath of the Covid-19 pandemic. Banks have ramped up their investments in digital transformation, which essentially implied the process of

adopting digital technologies and practices. The growing demand for branchless banking has compelled banks to undergo digital transformation. In 2020, banks witnessed a surge in the implementation of new digital tools and processes. For instance, there was a 41% increase in the adoption of contactless payments, a 34% increase in digital product opening, a 25% increase in the utilization of appointment bookings for branch services, and the introduction of various other digital initiatives. This report was conducted to include 39 countries, and although it did not include Palestine, digital transformation especially after Covid-19 has been heavily demonstrated by several new services that enabled the convenient delivery of banking services, including money transfers and balance verification, through the use of smartphones, computers, or laptops (Abuhasan & Moreb, 2021).

In reference to Alt et al. (2018) study, digital transformation in the banking sector can be identified under three categories of change: External, Network, and Internal levels. Demonstrating each level as follows; the external level determined whether there has been a shift from offline to online services and company models that accept non-cash payments. As for the network level, it referred to the advent of new, highly specialized rivals and how to decrease switching costs and redefining client loyalty (e.g., customers using more than one bank). Finally, the internal level, as it focused on the banking service providers' business focuses shifts from being manual, process-oriented, and customer-centric to automatic. Therefore, managers in the financial services sector should take proactive measures to prepare their IT infrastructure for future integration with emerging technologies. It is crucial for banks to be flexible in meeting the evolving needs of customers and being responsive to new market offerings. The focus should be on

prioritizing customer-centricity, consistently considering and incorporating customer opinions and demands in the development of financial services (Werth et al., 2020).

2.10 Predecessor Strategies for Banks' Digital Transformation

In today's digital world, the influence of digital technologies is evident across all industries (Chen et al., 2021; Hess et al., 2016; Lanzolla et al., 2020; Sousa-Zomer et al., 2020; Vial, 2019). Consequently, businesses must grasp how swiftly they can adapt to these digital changes and effectively leverage digital transformation for financial success (Hess et al., 2016; Matt et al., 2015; Vial, 2019). This digital transformation isn't solely about embracing the latest tech; it involves ongoing, strategic efforts encompassing various aspects of digital transformation (Hess et al., 2016; Wang & Bai, 2021). For enterprises to not only survive but thrive in this digital era, they need strategic approaches to pinpoint crucial elements within digital transformation settings (Hess et al., 2016; Saunila et al., 2020; Vial, 2019). This involves aspects like adopting technology, reshaping how value is created, making structural adjustments, and considering financial factors (Hess et al., 2016; Matt et al., 2015).

It is also worth noting that the findings from the 2015 digital business global executive study and research project were specifically named “Strategy, not Technology, Drives Digital Transformation”(Kane et al., 2015). In reference to the title and to the above-cited previous pieces of literature it is apparent that digital transformation needs to be preceded by the following strategies to prosper.

2.10.1 Digital Orientation and Digital Transformation

The way banks evolve and benefit from change is significantly shaped by their chosen strategic orientation (Dong et al., 2020). This orientation encompasses the direction and operating principles established by banks to consistently achieve outstanding results,

ultimately dictating how they allocate resources and make strategic moves. (Zhou et al., 2005). Current research on how banks approach their strategic orientation covers areas like entrepreneurship, technology, and market focus(Cheng et al., 2023). However, in the context of digital technology-driven services and digital transformation in the banking sector, an emphasis on technology strategies and digital orientation is becoming a pivotal component of banks' strategies, guiding their digital transformation efforts (Rodrigues et al., 2023).

As implied by the term, digital orientation focuses on the fact that an enterprise is focusing on digital operations for businesses and the use of digital technologies. It serves as a strategic approach that promotes the shift towards digital transformation while offering a unique selling point for the enterprise's offers. (Rupeika-Apoga et al., 2022). It is defined as a mindset that centers on adapting to the transformations driven by digital technologies like social media, mobile apps, and digitalized processes, defining the scope of digital technology as the array of digital tools enabling the company to achieve digital strategic expansion. (Kindermann et al., 2021). Furthermore, digital orientation in banks represents their dedication to revamp their business approach and improve how efficiently they operate, by using innovative financial technologies and creating new platforms for trading(Mubarak & Petraite, 2020).

Digital Orientation plays a key factor in supervising an enterprise's performance, as it molds how businesses undergo transformation and adapt their resources, particularly in the context of innovation, to achieve superior results because they possess a more inclusive viewpoint and a strong dedication to leveraging new technologies for the creation of innovative solutions(Khin & Ho, 2019) making it a critical element in the digital transformation process (Hess et al., 2016; Nasiri et al., 2022).

In conclusion, digital orientation represents a commitment to digital operations and innovative technology use, driving successful digital transformations and offering a competitive edge. This approach is pivotal in reshaping how banks operate and innovate, leading to comprehensive digital transformation and enhanced performance.

2.10.2 Digital Maturity and Digital Transformation

According to previous literature, digital maturity can be identified as a systematic pathway, set through precise and constant trials, to ensure an enterprise (e.g., a bank) is ready to adjust to the continuous digital shifts and manage the related long-term enhancements(Hess et al., 2016; Singh et al., 2020). In essence, digital maturity reflects the effort required from an enterprise to gradually improve its abilities with the aim of reaching a favorable and accurate strategy(von Leipzig et al., 2017).

Chanias and Hess (2016) associated digital maturity with the digital transformation status of an enterprise, emphasizing that it goes beyond measuring what a company has achieved in its transformation efforts. It also indicates how well the company is preparing to adapt to the increasingly digital landscape for competitive purposes. Teichert (2019) further highlighted that digital maturity is a comprehensive concept considering technological and managerial aspects.

Aslanova and Kulichkina (2020) observed digital maturity as a strategy that encompasses how well a business adapts to digital changes, incorporates digital advancements into its operations, and improves its employees' digital skills and abilities. Moreover, a digital maturity strategy signifies the methodical approach a company employs to navigate and excel in the competitive digital realm effectively. It entails an incremental process of acquiring knowledge and adjusting to the requirements of the digital landscape. (Gyan Consulting, 2023)

It is crucial for managers to gain a clear understanding of their organization's current digital transformation status and outline specific steps for their transformation strategy to prioritize tasks and create a strategic vision for the digital age (Berghaus & Back, 2016). Hence, the systematic evaluation of digital transformation progress and the pursuit of an ideal state of digital maturity are of growing importance for organizations. Digital maturity is crucial for enterprises as higher levels of it have been linked to outperforming industry competitors in financial performance (Westerman & Mcafee, 2012). Consequently, digital maturity is a fundamental component of digital transformation due to its emphasis on an ongoing approach and constant advancement, both of which are essential in the digital transformation process (Li, 2020).

In conclusion, digital maturity in the banking sector refers to the deliberate, ongoing process of enhancing a bank’s digital competencies and digital transformation strategy to effectively navigate the unsteady digital landscape.

2.10.3 Digital Intensity and Digital Transformation

Digital intensity involves allocating resources toward technology-driven initiatives that have the potential to reconfigure an enterprise’s operations, encompassing customer engagement, internal processes, and even the fundamental structure of its business models(Bonnet Didier, n.d.). It encompasses the extent of an organization's digital activities, reflecting the breadth of its digital solutions, transformation methods, and strategies (Nasiri et al., 2022). This aspect allows enterprises to operate more efficiently and handle a larger volume of activities in evolving environments (Westerman & Mcafee, 2012). Sousa-Zomer et al. (2020) emphasized that digital intensity significantly impacts company performance and plays a pivotal role in addressing challenges and formulating effective strategies in digital transformation. Furthermore, it acts as a prerequisite for

engaging with digital partners and achieving successful operations within digital ecosystems, ultimately promoting advanced digital maturity, and enabling organizations with diverse assets to capitalize on the benefits of digital transformation (Warner & Wäger, 2019).

Therefore, digital intensity is a precursor to digital transformation, with a core emphasis on devising effective strategies for adopting or discarding digital solutions and operations (Nambisan et al., 2017; Westerman & Mcafee, 2012).

Nasiri et al. (2022) provided a comprehensive description of digital intensity, defining it as the proficient use of digital technologies to capitalize on opportunities, mitigate risks, and align investments with a collective vision. This strategy simplifies decision-making processes concerning the scale of digital operations, fosters participation across diverse transformation domains, and facilitates clear domain selection and control over digital technology adoption. This, in turn, mitigates complexity and the necessity for overly selective approaches in implementing digital technologies.

In summary, digital intensity, in the context of the banking sector, signifies the allocation of resources towards technology-driven initiatives enabling banks to operate more efficiently and embrace digital transformation, ultimately enhancing their competitive edge in the financial industry.

2.11 Banks' Digital Transformation Components and Process

The digital transformation in the banking industry has reshaped the role of retail banks, driven by technological innovations, and changing consumer preferences (World Retail Banking Report 2016, 2016). Customers now prefer conducting banking activities through digital platforms, leading banks to offer personalized services and operate more

efficiently (Being Digital: Digital Strategy Execution Drives a New Era of Banking, 2015; Skinner, 2014). This has shifted the power balance, giving customers more control, and influencing banks to modernize their offerings to remain competitive (Finansinspektionen, 2016; E.Y., 2010).

Consequently, multiple authors discussed the core components a digital transformation process must meet in order to be successfully implemented in the banking sector. The following literature discusses various strategies for digital transformation implementation in the banks where the researcher concluded to cater for the Palestinian situation after concluding the important variable per study.

Gagnon (2023) for instance identified six key components for DX in the banking sector as follows: (1) Innovation (2) Collaboration (3) Experience (4) Infrastructure Modernization (5) Operational Excellence and (6) Consolidated Knowledge and Integration. Hitachi Solutions supports Gagnon, however, it prioritizes Knowledge, as the institution considers data gathering as the first step to compiling a thorough plan, because a banking institution needs to know its current processes to develop on it (Hitachi Solutions LTD, 2023). Additionally, Gagnon (2023) stated that for today's banking customers, the gathering and analysis of data within an organization is essential. Creating knowledge bases and integrating current systems can create a seamless experience across channels.

Secondly, differentiated experiences which are used to improve customer relationships, as solutions must be designed from the user's perspective to be effective, enable the necessary capabilities, and execute the necessary business functions (Gagnon, 2023). Banks can also utilize CRM data to build new products that better meet the needs of their

target market and design applications that close gaps in the user experience. Financial institutions may ultimately create distinctive, client-facing digital experiences that set them apart from the competition by using consumer data in a wise, strategic way (Hitachi Solutions LTD, 2023)

Thirdly, unified operations are performed by combining industry solutions and knowledge with finance, operations, supply chain, manufacturing, and customer interaction. As the financial services sector is quickly changing, and new ideas are being introduced daily; banks must take advantage of the most recent developments to increase their agility and create structures that can withstand the future without losing ground to FinTechs. (Gagnon, 2023)

Fourthly, collaboration which effects organizational productivity, focusing on engaging the employees sets them to become impactful and more collaborative in using new technologies and interacting with the customers and partners (Gagnon, 2023). According to Hitachi Solutions LTD (2023) modern workplace solutions can support remote or hybrid work patterns with collaboration and communication while also taking care of data protection and security needs. Microsoft Teams offers group chat, video conferencing, and information sharing tools, whereas Power Apps offers specially designed communication and collaboration tools.

Fifthly, modern digital infrastructure as true digital transformation requires financial institutions to migrate to the cloud since doing so enables them to increase compliance, controls, and security while also improving customer agility, performance, and integration (Hitachi Solutions LTD, 2023). Managed services offer IT expertise and the

flexibility to scale up or down as necessary, enabling businesses to concentrate on mission-critical goals and prevent expensive downtime. (Hitachi Solutions LTD, 2023)

Lastly, innovation to enhance capabilities, therefore, financial institutions ought to establish a culture that rewards talent and creativity, promotes cross-team cooperation, and empowers staff members to take initiative and offer suggestions. As a result of this culture, businesses will be better able to reap the rewards of their technological investments as staff members will feel more empowered and capable of offering the best level of customer care. (Hitachi Solutions LTD, 2023)

Moreover, in a report shared in 2021, KPMG discussed that the required components for banking DX especially after Covid-19 consists of five main factors (KPMG, 2021);

1) Customer- centricity:

   For the purpose of improving customer experiences and operational effectiveness, banks are embracing digital transformation. This involves making investments in employee skill development, using customer insights for personalized services, integrating data sources with AI and IoT to improve KYC, facilitating quick onboarding through digitalization and automation, and providing top-notch customer service across channels. Through customer-focused digitalization, operational excellence is to be attained (KPMG, 2021). Further Intetics Inc. (2023) agrees that it means putting the needs of customers' first and utilizing technology to provide individualized and tailored services.

2) Strengthening Cyber Security: Intetics Inc. (2023) stated that banks must ensure that digital transformation is carried out securely and in accordance with the law to protect consumer data. Banks can perform this through prioritizing the

implementation of effective security measures for remote work, with a focus on providing practical solutions and training for employees. It is crucial to confirm the security of cloud and collaboration platforms, and to seek confirmation from managed service providers regarding their security protocols. Improving business continuity management frameworks to handle larger and simultaneous events is necessary to maintain uninterrupted operations. Regular assessments of cyber resilience should be conducted, optimizing measures while also reducing costs. Lastly, planning for a security operating model that embraces automation can greatly enhance overall security effectiveness (KPMG, 2021).

3) Application Rationalization: According to OrbusSoftware (2021) application rationalization is the process of reducing the number of applications in a company's portfolio in order to cut costs and boost productivity. The total cost of ownership (TCO) covers the purchase of hardware and software, management and support services, communications, end-user costs, and the opportunity cost of downtime, training, and productivity losses. To achieve successful application rationalization, there are 10 key factors to consider. Firstly, it is important to clearly define rationalization as part of management goals. Establishing a dedicated "rationalization office" with its own budget is crucial. Additionally, using rationalization as a catalyst for other initiatives and appointing individuals to promote the rationalization vision and identify quick wins are important steps. Creating a comprehensive overview of the IT landscape based on facts is essential. The board should effectively communicate the rationalization vision, and efforts should be made to make rationalization attractive by rewarding those involved and celebrating successes. It is worth noting that while reducing full-time

equivalents (FTEs) may occur, it should not be the primary objective. Lastly, embedding rationalization into the DNA of IT architecture governance ensures long-term success (KPMG, 2021).

4) Using Cloud Technology and Innovation: COVID-19 pandemic had a significant impact on banks' profitability, resulting in an intensified focus on cost reduction and operational flexibility. Banks addressed these challenges by investing in cloud technology, which provided benefits such as optimized cost allocation, efficient management of computing capacity during periods of high customer demand, stimulation of innovation through additional services, and mitigation of risks associated with traditional technology. (KPMG, 2021)
5) Increasing operational resilience and flexibility: Financial institutions have seized the opportunity to make a significant impact by embracing sourcing or outsourcing. They have realized the potential to cut costs, improve services, enhance flexibility, and foster innovation through IT and cloud sourcing. This includes outsourcing non-core functions like administration, human resources, KYC, mortgage administration, and transaction monitoring. By reducing expenses in their regular operations, banks can differentiate themselves and focus on their unique selling propositions (KPMG, 2021). Additionally, banks can implement producers to quickly enable them to adapt their business practices to the market needs (Intetics Inc., 2023).

In addition to the above, Mckinsey (Next-Gen Technology Transformation in Financial Services, 2020) introduced ten questions a CEO can ask to assess the readiness of his organization for a digital transformation, these questions can be useful considered as a starting point for developing a DX strategy for the financial institution. In short, the

questions focus on three parts the institution role, the resource model, and technology foundation.

In conclusion, banks ought to consider adopting the following sequential steps when forming its strategy to implement digital transformation (as presented in figure 6), noting that the following figure is summarized by the researcher in reference to the above-mentioned studies:

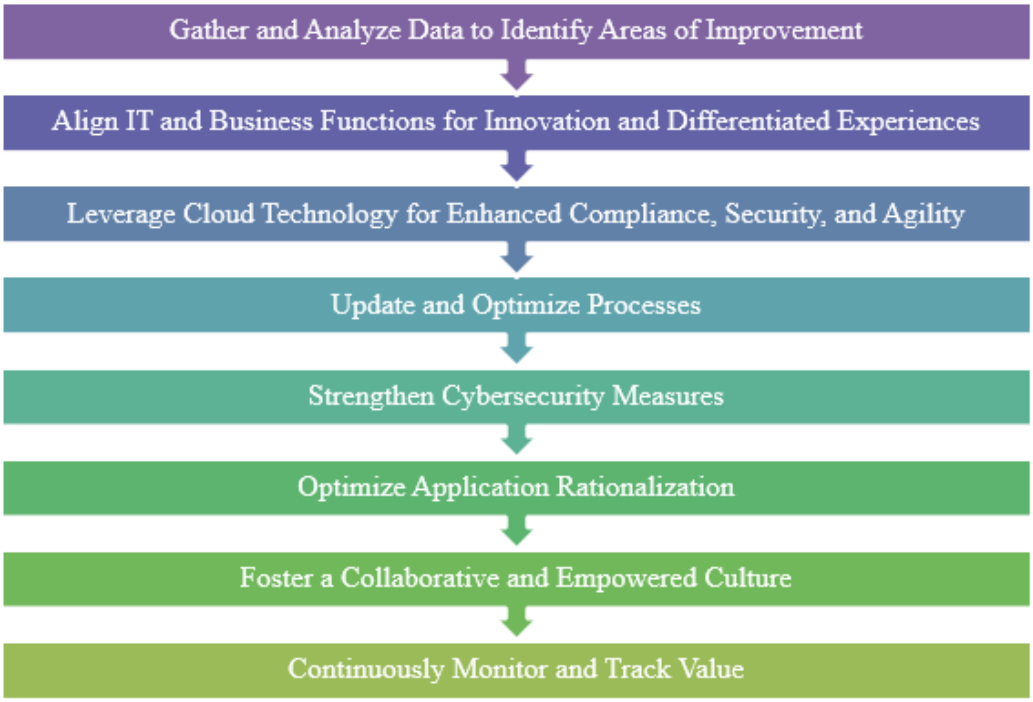

Figure 6: Digital Transformation Process
- Source: (Summarized by the researcher)

By sticking to this sequential process, financial institutions can establish an effective roadmap for implementing digital transformation. This enables them to proactively respond to the changing demands of the banking sector while providing outstanding customer experiences.

2.12 Factors Influencing Banks' Digital Transformation

When employees have expectations that the digital environment will enable them to achieve better performance, greater satisfaction, and personal well-being effortlessly, it

boosts their motivation to support digital transformation (Selimovic et al., 2021). The employees at Bank Kalsel displayed a strong willingness to embrace and implement digital technologies within the organization, which is evidenced to their high intention to use digitalization. This intention positively influenced their enthusiasm and active engagement with the digital system, resulting in increased interest and active participation (Bastari et al., 2020). Moreover, the employees demonstrated a high level of proficiency in effectively using digital applications and websites, indicating their competence in adapting to the relevant digital tools for their work tasks. Through the use of digital platforms, employees actively reviewed and assessed their performance, leading to a better understanding of their achievements. These platforms also allowed employees to easily monitor their work progress, enabling effective self-assessment and keeping them updated with daily information (Bastari et al., 2020). The implementation of digital transformation brings significant changes to the employees' work patterns and procedures, aligning them with the digital environment. This transformation ultimately contributed to an increased productivity (Bastari et al., 2020; Hakuduwal, 2021). Successful DX also reduces employees' resistance to change as they embrace new and more efficient work processes and procedures. Employees' perception of the usefulness of digital technologies, combined with robust data security measures and protection of their privacy, fosters trust and willingness to engage with the system. Additionally, employees' confidence in their ability to effectively use digital tools and technologies, along with the provision of timely and effective technical support during the digitalization process, further promotes their acceptance and utilization of digitalization (Hakuduwal, 2021).

From the previous studies, the researcher concluded thirteen main factors affecting digitalization in the banking sector, where she designed the following figure to convey them.

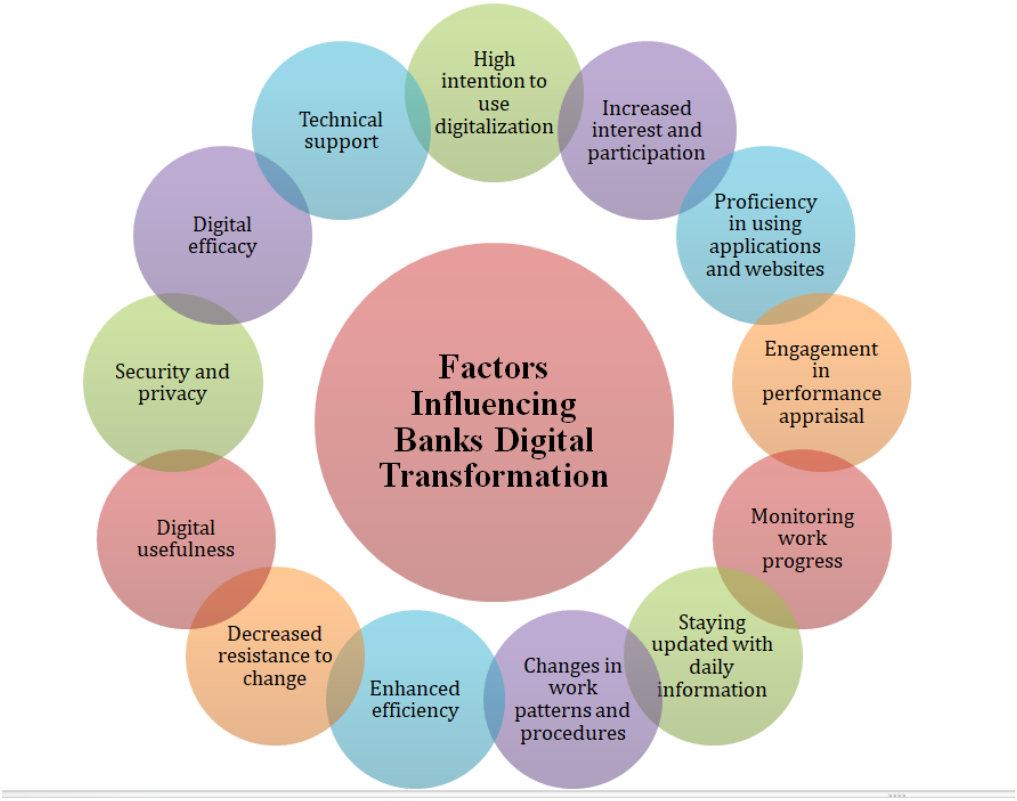

Figure 7: Factors Influencing Banks Digital Transformation
- Source: (Summarized by the researcher)

2.13 Banks' Digital Transformation Journey

Papathomas & Konteos (2023) pointed out the three phases' banks go through in digital transformation. The first phase is called the "Adaptation phase" which outlines how banks are aligning the new digital technologies with their strategic goals and objectives. This phase focuses on creating the offers which will be delivered to the customer without focusing on the technological details. In other studies, this phase is mentioned to as the positioning phase (Kääriäinen et al., 2020) which is a continuous procedure that assesses an institution's level of digital transformation. It tackles one concept at a time by splitting

each objective and variable into smaller sections and developing a value/ offer gradually to the customers.

The second phase is the “Growing Phase” which is according to Coalition Greenwich (The Future of Banking: Digital Transformation, 2020) describes the tools and technologies that should be adopted by the bank. Papathomas & Konteos (2023) stated that in this phase Banks might need to increase their costs in order to modernize their approach towards new digital technologies. They explain that new bank departments and job profiles should be introduced to advocate for culture change within the institution. Ulas (2019) also mentioned that this phase is where an institution builds a supportive environment towards its transformation and creates an awareness of the new digital technology that should be followed.

The final phase is “Transformation Phase” which as Papathomas & Konteos (2023, p. 8) states it is” where revolution, not evolution, kicks in”. In this phase banks have shifted its internal branches capabilities into its externally developed channels, which might cause increase risks and new challenges (Warner & Wäger, 2019). Banks might not develop a new business model; however, they are more likely to employ digital technologies to develop or enhance their current activities (Volberda et al., 2021). Moreover, this phase will offer highly tailored offers for the banks customer which will embrace integration between the human touch and technology that work together to achieve service excellence (The Future of Banking: Digital Transformation, 2020).

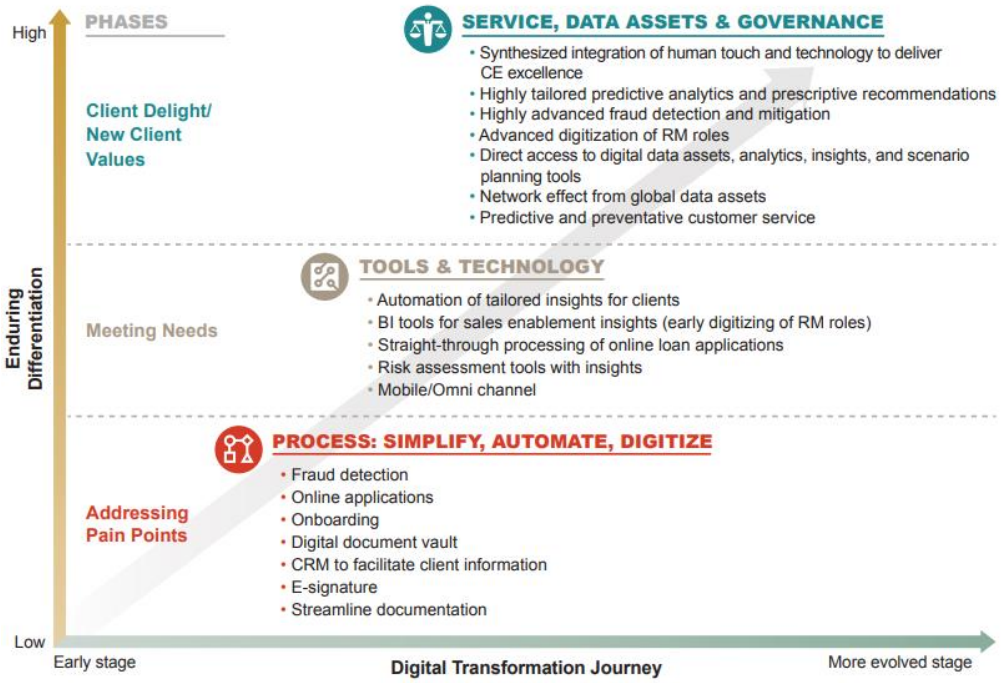

Figure 8: Digital Transformation Journey
- Source:(The Future of Banking: Digital Transformation, 2020)

2.14 Banks' Digital Transformation Challenges

In the banking sector, there are several challenges that financial institutions face in their digital transformation journey. One challenge is an inadequate digital strategy (Baskerville et al., 2020), this leads to a lack of familiarity with digital tools and systems among employees, which can hinder the adoption of digital technologies(Baskerville et al., 2020; Diener & Špaček, 2021; Jayalath & Premaratne, 2021). Another challenge arises from the regulatory environment, as banks need to navigate and ensure compliance with regulations while undergoing digital transformation(Baskerville et al., 2020; Diener & Špaček, 2021; Jayalath & Premaratne, 2021). Additionally, the entry of FinTech companies into the banking sector adds further complexity. Traditional banks must cope with the competition and uncertainty brought by these tech start-ups to maintain their market position within the market. (Baskerville et al., 2020; Jayalath & Premaratne, 2021)

Moreover, a significant challenge banks might face through digital transformation is inadequate process re-engineering, where existing manual processes are not optimized for digital business models. This inefficiency and lack of optimization can limit the delivery of digital products and services, hampering the overall transformation efforts(Baskerville et al., 2020; Diener & Špaček, 2021). Also, making incorrect or suboptimal technology choices can affect the successful implementation of digital solutions, as banks must identify and adopt the right technologies that are both suitable to their needs and cost-effective. (Jayalath & Premaratne, 2021)

Customer engagement is another vital aspect of digital transformation, therefore, maintaining customer engagement and ensuring a positive customer experience are essential for achieving the desired outcomes of digital initiatives(Gouveia et al., 2020). Insufficient customer awareness and engagement can impede the effectiveness of digital efforts, so financial institutions must prioritize strategies to enhance customer engagement and awareness(Diener & Špaček, 2021; Jayalath & Premaratne, 2021).

Furthermore, banks need to establish a deep link between their products and strategic markets to remain competitive in the face of FinTech companies(Baskerville et al., 2020). Banks must conduct a thorough market analysis and collect relevant data on competitors and customer needs, as this analysis will help them understand the market dynamics, identify opportunities and threats, and strategically align their offerings (Jayalath & Premaratne, 2021). These insights will ensure a successful integration of digital technologies with financial services.

In addition to that, many financial institutions face a challenge regarding a competent staff, due to workforce shortages of digital knowledge and skills. Institutions need to

concentrate on retraining their current employees and hiring specialists in digital technologies to assist their digital activities in order to overcome this.(Diener & Špaček, 2021; Jayalath & Premaratne, 2021)

Baskerville et al. (2020), discussed solutions to overcome these challenges. Firstly, financial institutions are advised to develop a strategic plan that takes into account their unique needs, thoroughly examines the economic and financial fabric, and addresses regulatory gaps. This strategic planning approach will provide a roadmap for successful digitization. Secondly, seeking external support from professionals can be beneficial in understanding specific requirements and identifying customizable technologies that align with the institution's goals. These experts can provide valuable insights and recommendations throughout the digitization process (Diener & Špaček, 2021). Lastly, adopting an integrated and systemic approach internally is crucial. This involves emphasizing strategic planning, allowing for the release of new operating forms within banks, and leveraging the diverse skills available across different locations. By implementing these recommendations, financial institutions can gain competitive advantages and navigate the challenges associated with digital transformation effectively.

2.15 Chapter Summary

In conclusion, the literature review section extensively explored the impact of employees' digital competence and digital transformation in the banking sector, with a specific emphasis on local Palestinian banks. The review explored key theories, concepts, empirical studies, and best practices, shedding light on the crucial role of employees' digital capabilities in driving successful digital transformation. As the banking industry undergoes rapid technological advancements, understanding the factors that contribute to a smooth transition to a digitally empowered banking environment becomes imperative.

By synthesizing studies and best practices from international and Palestinian contexts, this comprehensive review serves as a foundation for the subsequent sections of the study, guiding the research questions, objectives, and methodology employed to investigate the impact of employees' digital competence and banking digital transformation in local Palestinian banks.

In summary, the literature review highlighted the significance of employees' digital competence in driving digital transformation and emphasized the need for local Palestinian banks to adapt to the digital era effectively. By exploring themes such as digital competence definition, its areas and learning domains, the difference between digitization, digitalization, and digital transformation, factors influencing digital transformation in banks, adoption of digital banking services, and future trends, the review provided valuable insights and guidance. Furthermore, by aligning with related studies and employing a mixed approach, the current research aims to bridge the existing gap and contribute to the understanding of how employees' digital competence influences digital transformation specifically in Palestinian local banks.

Chapter Three

3.1 Introduction to Methodology

This chapter outlined the adopted research methodology, strategically crafted to meet the research's objectives, and addressed its inquiries comprehensively. The first segment discussed the research design, followed by an exploration of the sampling technique. Subsequent sections detailed the data collection approach, research procedures, and the method employed for data analysis. This systematic presentation aimed to ensure the research's efficiency and thoroughness in addressing its research objectives.

3.2 Research Model

This research introduced a novel research model to study the employees' digital competence impact on digital transformation in Palestinian local banks. Using a combination of questionnaires and a semi-structured interview, to unravel the impact of employees' digital knowledge, skills, and attitudes, and the orientation, maturity, and intensity of digital transformation specifically within the context of Palestinian local banks.

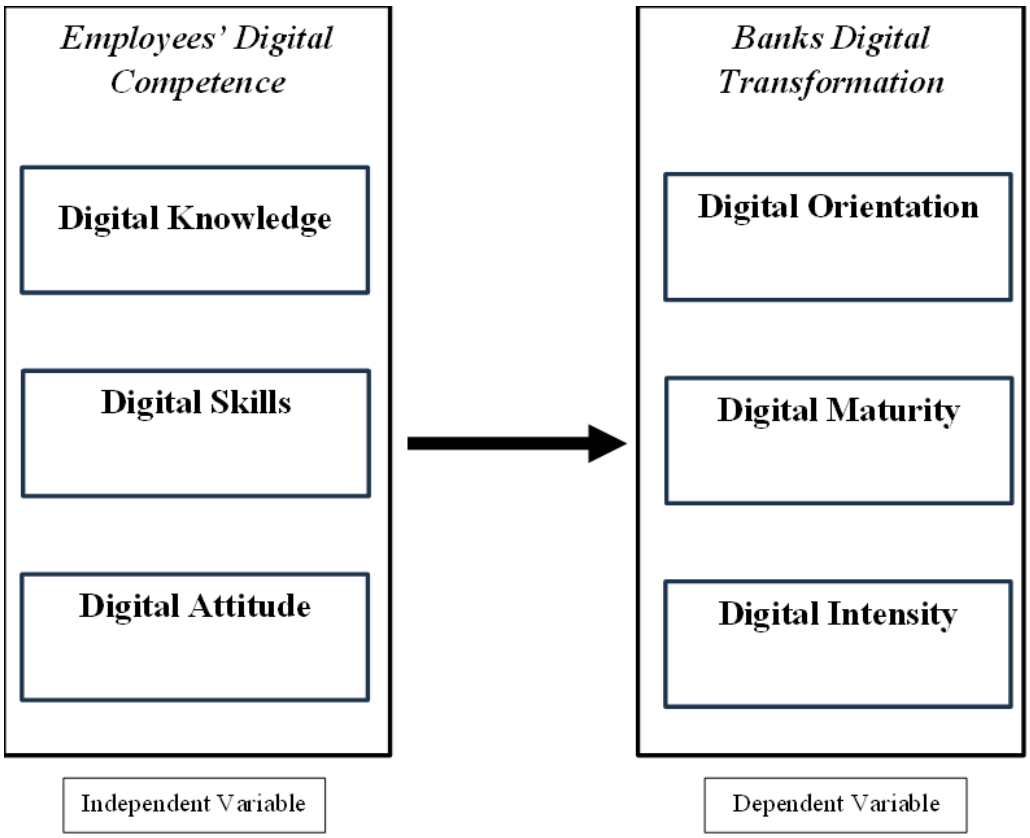

Figure 9: Research Model

3.3 Research Design

Research design functions as a systematic framework detailing the structured approach for data collection, measurement, and analysis to address the research question (Sekaran & Bougie, 2016). Blumberg et al. (2014) emphasized that research design conveys the outline of the research problem, coordinates relationships among study variables, and defines the investigative plan for obtaining empirical evidence on these relationships. In essence, research design is the roadmap that guides the entire research process, from defining the problem to gathering concrete evidence.

This research followed a descriptive analysis design. In definition, a descriptive analysis design involves a thorough exploration of a phenomenon to understand its current state, aiming to depict what exists and lay the groundwork for discovering novel insights. This method involves careful data collection, organization, and depiction, guided by research

questions rather than structured hypotheses, and is characterized by neutrality and objectivity (Baha, 2016).

This research also considered a case-study approach as it intended to assess the impact of the digital competence of the employees working in Palestinian local banks on the banking digital transformation. According to Flick (2022), a case-study approach is an investigative inquiry, exploring a modern phenomenon within its genuine context and drawing evidence from various sources.

In that manner, the research adopted a mixed-approach descriptive analysis research design. By incorporating the quantitative insights derived from descriptive analysis with the qualitative depth obtained through a case study exploration, the researcher aimed to offer a comprehensive understanding of the research's main problem. This combination enabled a thorough consideration of the research variables, being, employees' digital competence (the independent) and the banking digital transformation (the dependent), while shedding light on the aspects of the research questions.

3.4 Research Population and Sampling Technique

The sampling technique is the process of identifying multiple options to enable researchers to cut down the volume of data that needs to be collected by considering a sample instead of the entire group due to the limited resources of time, money, and the population size involved (Taherdoost, 2016). In line with the adopted case-study approach, the researcher chose to focus on employees from local Palestinian banks as the research population. As of 31 December 2022, the Association of Banks in Palestine reported a total of 5,103 employees working within the local Palestinian banking sector (Palestinian Banking Sector: Banking Facts 2022, 2022). Considering this representation as a homogenous group/stratum divided from a larger pool, which is the total bank

employees in Palestine reported as 7,524 employees (Palestinian Banking Sector: Banking Facts 2022, 2022), a stratified random sampling technique was opted; as this technique improves the accuracy of estimates and gives specific insights for each subgroup/stratum (Lynn, 2016), adding depth to understanding the variables of this research.

Following Herbert Arkin's formula, a sample size of 357 participants was designated for research purposes. Limiting the sampling frame to 7 local Palestinian banks out of 13 banks operating in Palestine, as follows.

1. Bank of Palestine (BOP)
2. Al-Quds Bank
3. Palestinian Investment Bank (PIBC)
4. Al-Safa Bank
5. Arab Islamic Bank (AIB)
6. Palestinian Islamic Bank (PIB)
7. The National Bank (TNB)

3.5 Data Collection Method

The researcher employed both primary and secondary data sources. Secondary data from various journal articles, books, related scientific studies, and online research studies were thoroughly reviewed, summarized, and then presented in the preceding chapter. These secondary resources served as valuable support in the literature review, encompassing scientific articles and studies, as well as previous studies and theories utilized in other dissertations and theses.

Primary data was obtained through quantitative and qualitative methods. A questionnaire of two parts, described in-depth in the subsequent section, was distributed to 357 local bank employees from different levels; since it is an effective method to be used for quantitative data collection.

The questionnaires were distributed using two means; firstly, a printed hard copy was personally handed to the selected employees, and secondly, participants received a Google Forms link via email. Both questionnaires were accompanied by a cover sheet interpreting the purpose of the study, information about the researcher for further inquiries, as well as an outline of the participants' rights.

As for the qualitative method, a semi-structured interview was conducted with Mr. Anwar Jabr, the Acting Director of the Digital Transformation Department at the Palestine Monetary Authority (PMA). The primary purpose of the interview was to gain comprehensive insights into the role of the PMA in the digital transformation strategy of the Palestinian banking sector, along with assessing the overall digital maturity and intensity within the sector. The structure of the interview questions was also discussed in the following section of this chapter.

This descriptive analysis research employed a mixed approach, utilizing both primary (quantitative and qualitative) and secondary data sources, ensuring an exhaustive examination of the local bank employees' digital competence and the digital transformation landscape in the Palestinian banking sector.

3.6 Instrument Development

3.6.1 Questionnaire Development

The Questionnaire was built on a Likert scale, which is a technique followed to measure the target sample's attitude on a certain topic (Batterton & Hale, 2017). The format of the

questions provided the recipient with five possible choices (strongly agree, agree, undecided, disagree, and strongly disagree).

The questionnaire consisted of two parts. In the first part, the researcher tried to capture the demographic information of the target sample, including gender, age, educational background, affiliated department, and degree experience within the banking sector. These variables were collected by eight questions; however, the eighth question was optional, and thus, it did not have a 100% rate of responses. This demographic data served as the foundational information of this research, leading to the second part comprising of three sections.

The first section of the second part of the questionnaire addressed the three dimensions related to employees' digital competence in fifteen questions, allocating five questions per dimension as portrayed in the research model.

Subsequently, the second section of the second part of the questionnaire shifted to investigate the impact of the independent variable and the digital transformation strategies. This section was divided into three dimensions, exploring the digital orientation strategy, the digital maturity strategy, and the digital intensity strategy. This section also had fifteen questions, allocating five questions per dimension.

Finally, the third section of the second part of the questionnaire was developed to assess the digital transformation nature within the Palestinian local banks, which also had fifteen questions to assess.

Table 3: The Questionnaire's Sections and Number of Questions

Dimensions	Section	Number of Questions
Section 1: Employees Digital Competence		
1. Digital Knowledge		5
2. Digital Skill		5
3. Digital Attitude		5
Total Number of Questions Per Section		15
Section 2: The Impact on Digital Transformation		
1. The Impact on Digital Orientation		5
2. The Impact on Digital Maturity		5
3. The Impact on Digital Intensity		5
Total Number of Questions Per Section		15
Section 3: Assessing Digital Transformation (Orientation, Maturity, and Intensity) in Local Palestinian Banks		
Total Number of Questions Per Section		15
Total Number of Questions in the Distributed Questionnaire		45

3.6.1.1 Questionnaire's Validity and Reliability

The researcher compiled the feedback of 4 professors (Ph.D.) to guarantee the questionnaire's validity prior to distribution. The professors reviewed the draft questionnaire and provided their comments and amendment suggestions, which were introduced to the finalized questionnaire. Consequently, the questionnaire was distributed to a random test sample of 30 bank employees, from the target population, to assess its reliability using Cronbach's alpha, the coefficient was 0.95 for the sections related to the study's variables, as shown in the table below.

Table 4: The Questionnaire's Reliability Coefficient

Questionnaire Components	Cronbach's Alpha (Average) if Item Deleted
Section 1: Employees Digital Competence	
Digital Knowledge	0.95
Digital Skill	0.95
Digital Attitude	0.95
Total Coefficient AVG.	0.95
Section 2: The Impact on Digital Transformation	
The Impact on Digital Orientation	0.95
The Impact on Digital Maturity	0.95
The Impact on Digital Intensity	0.95
Total Coefficient AVG.	0.95
Section 3: Assessing Digital Transformation (Orientation, Maturity, and Intensity) in Local Palestinian Banks	
Total Coefficient AVG.	0.95

The coefficient numbers are considered high; therefore, the questionnaire was considered reliable for the purpose of this study.

3.6.2 Semi-Structured Interview Questions Development

As the research investigated the landscape of digital transformation within the Palestinian banking sector, an interview with the Palestine Monetary Authority (PMA) was required. The developed questions aimed to assess the current state of digital transformation, the conversation unfolded insights regarding the digital initiatives undertaken by Palestinian banks in recent years and their alignment with the strategic objectives outlined by the PMA.

The interview highlighted the Palestinian banking sector's emerging state in the digital transformation field and revealed the digital orientation that the PMA is adopting in its

plans. Despite the delayed initiation, the PMA benefited from the experiences of other countries and from the accumulated knowledge in that field, to project innovative financial solutions on a global scale.

Noteworthy digital initiatives were explored, especially the credit and checks rating software, explaining its impact on loan automation and credit risk evaluation within Palestinian banks. Challenges proceeding from the absence of a national currency, identity complexities, and infrastructural constraints were discussed. A focal point emerged in the discussion on digital competencies, stating the sector's current emphasis on information security and the forthcoming assessment of employees' digital knowledge and skills. The interview extended to the digital maturity assessment, acknowledging a lack of current benchmarks but indicating their incorporation into upcoming strategic plans.

Furthermore, variances in digital intensity among banks were attributed to distinct organizational cultures and varying perspectives on digital investments. However, going forward, an unavoidable shift towards increased digital infrastructure investment due to the future regulations the PMA is going to declare. The conversation concluded by highlighting initiatives that encourage digital changes for customers, including programs to raise awareness, efforts to enhance financial understanding, and the introduction of innovative tools like QR Codes and sandboxes. These endeavors emphasize the PMA's dedicated work to bring about a digitally advanced era for the Palestinian banking sector.

In summary, the interview offered a detailed and thorough look into the ever-changing digital landscape of the Palestinian banking sector. It covered the PMA’s current and future strategies, in addition to the key challenges in this sector’s digital transformation

journey. The interview helped in providing an in-depth understanding of the digital transformation situation in the Palestinian banking sector and the PMA.

3.7 Research Procedures

During the span of this research, several procedures were performed.

1. The Researcher identified the research problem and designed the research model to incorporate the research's variables.
2. The study population was selected, and the sample was calculated by utilizing "Herbert Arkan's" equation (Bishmani, 2014, p.90).
3. The questionnaire questions were developed by the researcher, reviewed by the supervisor, and followed by arbitration from other 4 doctors (Ph.D.).
4. Interview questions were developed and reviewed to provide more information for this research.
5. The researcher emailed the Palestine Monetary Authority to request their approval to have an interview with a representative from the digital transformation department.
6. Then, a semi-structured interview was conducted at the PMA premises with Mr. Anwar Jaber.
7. The Palestinian Local Banks' HR Managers were contacted to receive their permission to distribute the finalized questionnaire to a selection of its employees.
8. After that, the researcher distributed the questionnaires via two different means. Printed and electronic copies.
9. The data collected from the questionnaire were coded and uploaded to SPSS for analysis.

10. Finally, the researcher analyzed the gathered data and formed the conclusions and recommendations.

3.8 Data Analysis Method

In analyzing the questionnaire responses, the SPSS program was utilized for its accuracy and graphical representations, providing beneficial results for data analysis. Through the SPSS program, various tests were employed to assess descriptive statistics such as the mean, median, mode, range, and standard deviation. Additionally, inferential statistics were explored, through conducting correlation tests and hypothesis tests to describe the impact of the independent variable on the dependent variable and evaluate the research questions and hypotheses. Frequencies, percentages, arithmetic averages, and elastic deviations were conducted to estimate the relative weight for the questionnaire's paragraphs, along with a significance test to assess the effect of the independent variable on the dependent variable.

As for the semi-structured interview that was conducted to collect the required answers for the research questions; the researcher pursued a thematic analysis approach to recode the qualitative data gathered.

Kiger and Varpio (2020) identified the thematic analysis approach as a method for portraying qualitative data, while including understanding the processes of choosing codes and developing themes. This approach consists of three main steps which the researcher followed.

- The first step was Data Reduction: which "refers to the process of selecting, coding, and categorizing the data" (Sekaran & Bougie, 2016, p. 333)

- The second step was Data Display: which “refers to ways of presenting the data. A selection of quotes, a matrix, a graph, or a chart illustrating patterns in the data may help the researcher (and eventually the reader) to understand the data.” (Sekaran & Bougie, 2016, p. 333)
- The third and final step was Data Coding: which “refers to developing ideas on how to display data along with drawing preliminary conclusions.” (Sekaran & Bougie, 2016, p. 333)

The steps and results were explained thoroughly in chapter four of this research, which demonstrated the analysis of both the quantitative and qualitative data.

3.9 Chapter Summary

This chapter systematically interpreted the adopted research methodology, encompassing various components such as research design, sampling technique, data collection methods, and analysis procedures. Emphasizing a descriptive analysis design, the research aimed to comprehensively study the impact of employees' digital competence on digital transformation in Palestinian local banks. The chosen stratified random sampling technique ensured a detailed understanding of the research variables, while the incorporation of both primary and secondary data sources underscored the extensive nature of the research. The detailed account of research procedures and data analysis methods further contributed to the methodological transparency of this research.

Chapter Four

4.1 Introduction to Data Analysis

In this chapter, the researcher presented the empirical findings derived from the chosen research instruments. Initiating the exploration with a detailed examination of the questionnaire data, aligning, and testing it seamlessly with the formulated hypothesis. Subsequently, the researcher formed a comprehensive analysis of the conducted semi-structured interview. The coding process produced reasoned responses to most of the interview questions, strategically providing an in-depth understanding of the current state of digital transformation in the Palestinian banking sector and the main role of the Palestine Monetary Authority (PMA).

4.2 Data Gathered from Questionnaires

The Researcher distributed the questionnaires following two methods, electronically via Google Forms link, and physically, which were distributed and collected by the HR departments in the selected banks sample. The researcher was able to collect a total of 357 questionnaires, which is the total calculated sample.

4.2.1 Respondents Profile – Demographic Data

The table below describes the demographic information for the 357 questionnaires in terms of gender, age, academic qualification, job title, years of experience in the banking sector, affiliated department, years of experience in his current bank, and finally, in which local bank he is employed.

Table 5: Demographic Data

Demographic Variable	Variable Category	Frequency	Percentage %
Gender	Male	186	52.1
	Female	171	47.9
	Total	357	100.0
Age	20-30 years old	188	52.7
	31-40 years old	161	45.1
	41-50 years old	8	2.2
	Above 50 years old	0	0
	Total	357	100.0
Academic Qualification	Diploma	5	1.4
	Bachelor	286	80.1
	Masters	66	18.5
	Ph.D. or equivalent	0	0
	Total	357	100.0
Job Title	Intern	0	0
	Officer	262	73.4
	Supervisor/ Head of Section	51	14.3
	Deputy Manager	14	3.9
	Manager/Head of Department	28	7.8
	Senior Manager	2	0.6
	Executive Manager	0	0
	Total	357	100.0
Years of Experience in The Banking Sector	Less than a year	33	9.2
	1-5 years	115	32.2
	6-10 years	123	34.5

.	11-20 years	75	21.0
	More than 20 years	11	3.1
	Total	357	100.0
Affiliated Department	Customer Service	127	35.6
	Loan Facilities	69	19.3
	Marketing	7	2.0
	Business Development	10	2.8
	Information Technology	11	3.1
	Operations	41	11.5
	Risk Management	6	1.7
	Collection	2	0.6
	Other	84	23.5
	Total	357	100.0
Years of Experience in Current Bank	Less than a year	62	17.4
	1-5 years	129	36.1
	6-10 years	115	32.2
	11-20 years	49	13.7
	More than 20 years	2	0.6
	Total	357	100.0
Local Bank (Optional)	Bank of Palestine	59	16.5
	Quds Bank	20	5.6
	Palestine Investment Bank	41	11.5
	Arab Islamic Bank	67	18.8
	Safa Bank	30	8.4
	Palestine Islamic Bank	33	9.2
	The National Bank	21	5.9
	No Answer	86	24.1

	Total	357	100.0

4.2.2 Questionnaire Sections Analysis

The Researcher depended on the below criteria to explain the results, as follows;

• Arithmetic average (4 or more) was considered a very high degree.

• Arithmetic average (3.5-3.99) was considered a high degree.

• Arithmetic average (3-3.49) was considered an average degree.

• Arithmetic average (2.5-2.99) was considered a low degree.

• Arithmetic average (less than 2.5) was considered a very low degree.

Consequently, a thorough explanation of the questionnaire results is presented below.

4.2.2.1 Employees Digital Competence

Arithmetic averages and standard deviations were extracted for the dimensions of the level of digital competencies among employees of local Palestinian banks.

Table 6: Averages & Standard Deviations for Local Palestinian Banks Employees Digital Competence

D.C Dimensions	AVG	Stand. Dev.	Degree
Digital Knowledge	4.0420	0.51769	Very High
Digital Skills	4.9014	0.62989	Very High
Digital Attitude	4.0964	0.51398	Very High
Total Degree	**4.3466**	**0.47474**	**Very High**

The above table indicates the level of digital competencies among local Palestinian bank employees stands at a total average score of (4.34) and a total standard deviation of (0.47), which means that the average of these dimensions is of a very high degree. As for the dimensions' degrees, Digital skills came in first place with an average of (4.90) and a standard deviation of (0.62), and the degree of this dimension is considered very high in

reference to the indicators the researcher has previously set for this study. Digital knowledge came in second place with an average of (4.04) and a standard deviation of (0.51), which is a very high degree as well. Moreover, Digital attitude came in third place with an average of (4.09) and a standard deviation of (0.51) and these numbers reflect a very high degree. The results affirm that the total level of digital competencies that local Palestinian banks employees obtain is of a very high degree.

4.2.2.2 The Impact on Digital Transformation

Arithmetic averages and standard deviations were extracted from the questions asked to assess the impact of employee digital competence on the dimensions of digital transformation in local Palestinian banks.

Table 7: Averages & Standard Deviations for the Impact of D.C on Digital Transformation in Local Palestinian Banks

DX Dimensions	AVG	Stand. Dev.	Degree
The Impact on Digital Orientation	3.7283	0.68016	High
The Impact on Digital Maturity	3.7277	0.68568	High
The Impact on Digital Intensity	3.7541	0.63839	High
Total Degree	**3.7367**	**0.66807**	**High**

The above table indicates the total impact level of local Palestinian bank employees' digital competencies on digital transformation stands at a total average score of (3.73) and a total standard deviation of (0.66), which means it is of a high degree. As for the dimensions' degrees, the impact on Digital Intensity came in first place with an average of (3.75) and a standard deviation of (0.63), and the degree of this dimension is considered high in reference to the indicators the researcher has previously set for this study. The impact on Digital Orientation came in second place with an average of (3.728) and a standard deviation of (0.68), which is a high degree as well. Moreover, the impact on

Digital Maturity came in third place with an average of (3.727) and a standard deviation of (0.68) and these numbers reflect a high degree. The results affirm that local Palestinian banks employees' digital competencies have a high degree of impact on digital transformation.

4.2.2.3 Assessing Digital Transformation (Orientation, Maturity, and Intensity) in Local Palestinian Banks

Arithmetic averages and standard deviations were extracted from the fifteen questions asked to assess the degree of digital transformation (orientation, maturity, and intensity) in local Palestinian banks.

Table 8: Averages & Standard Deviations for the Assessment of Digital Transformation in Local Palestinian Banks

Third Section Questions	AVG	Stand. Dev.	Degree
There is a clear regulatory framework for digital transformation at the bank.	3.83	0.951	High
I perceive that the bank is adopting a digital approach in its services and internal operations.	3.61	1.059	High
I believe that the bank is considered to be in the stage of full digital maturity in the Palestinian market.	3.75	1.068	High
The bank offers extensive digital products and services compared to local competitors in the Palestinian market.	3.80	0.970	High
A bank's digital orientation impacts its ability to adapt to changing customer preferences and requirements.	3.83	0.941	High
There are examples of the bank's recent initiatives that demonstrate its maturity and digital intensity in the local Palestinian banking sector.	3.89	0.864	High
The bank's digital initiatives are in line with practices in the digital banking sector.	3.89	0.934	High

The bank relies on customer data analytics to improve its digital services.	3.99	0.901	High
The bank encourages its employees to actively participate in digital transformation.	3.95	0.918	High
The bank adapts to the dynamic changes in the financial digital space and is able to address cybersecurity challenges.	3.92	0.907	High
The bank is adopting a plan for employee development and digital management.	3.84	0.981	High
The bank follows global developments in the field of digital transformation.	3.91	0.911	High
The bank follows a plan to manage risks resulting from digital transformation.	3.72	1.017	High
The bank can completely transform into a digital bank, as it can provide services to the public through intermediaries and transactions, eliminating paper transactions.	3.84	0.981	High
There is a sequence and plan for the bank's digital development mechanisms.	4.26	0.593	Very High
Total Degree	**3.7367**	**0.66807**	**High**

According to the above table, it is clear that the assessment of the digital transformation in the Palestinian local banks was to a high degree, as the results indicated that there is a significant digital transformation in the Palestinian local banks, and the most important digital transformations in the local Palestinian banks were as follows;

1. There is a sequence and plan for the bank's digital development mechanisms.
2. Local Palestinian banks focus on customer data analytics to improve their digital services.
3. Local Palestinian banks encourage their employees to actively participate in digital transformation.

4. Banks are adapting to the dynamic changes in the financial digital space and are able to meet cybersecurity challenges.
5. Palestinian banks follow global developments in the field of digital transformation.
6. Examples of recent banking initiatives are available that demonstrate the maturity and digital intensity of the local Palestinian banking sector.

4.3 Data Gathered from the Interview

As mentioned in the previous chapter, the researcher adopted a thematic analysis approach to organize the quantitative data presented from the interview the researcher held with Mr. Amer Jabr, the Acting Director of the Digital Transformation Department at the Palestine Monetary Authority (PMA).

The following table summarizes the main results accumulated from the organized quantitative data.

Table 9: Interview Concluded Results

Main Result	Details
Digital Transformation Status in Palestine	• The Palestinian Monetary Authority (PMA) is in the early stages of digital transformation. • Despite a global delay, the region compares favorably to neighboring countries. • Plans are in place to launch innovative digital financial solutions, drawing lessons from the delayed start.
The PMA’s Key Digital Initiatives	• The PMA's credit and checks rating software supports banks in automating loan processes and enhancing credit risk evaluation. • A local Palestinian bank and a foreign bank have implemented an innovative solution, enabling instant loan approvals through various channels (ATMs, Online Banking, Mobile Banking).
Strategic Objectives for the PMA	• The PMA has embraced a digital transformation strategy, focusing on implementing state-of-the-art systems through collaboration with banks, FinTech, and contributors.

	• An upcoming assessment of banking sector employees' digital competencies (digital knowledge, digital skills, and digital attitudes) is planned to be initiated.
Digital Transformation Challenges in Palestine	• Challenges include the absence of a national currency, the impact of occupation on identity, and limitations in technological infrastructure like 4G services. • Defining Palestinian identity poses challenges for Know Your Customer (KYC) activities and infrastructure limitations hinder the optimal use of cloud services.
Banking Sector Employee's Digital Competencies	• The PMA is planning to assess the Digital Maturity Index, with a current focus on employee awareness of information security, particularly phishing risks.
Digital Intensity and Future Expectations	• There are differences among banks regarding investment in digital transformation, influenced by views on the necessity and advantages. • The PMA emphasizes that the future will compel banks to invest more in digital products and culture to survive in the evolving digital landscape.
Digital Orientation	• Local banks support digital orientation driven by laws and regulations set by the PMA, with a focus on competitiveness and compliance.
Digital Initiatives Targeting Palestinian Customers	• Initiatives like Banking Week, PMA Academy, QR Code applications, and a sandbox for new ideas aim to shift customers toward digital transformation.

In conclusion, the interview indicated that while the Palestinian banking sector is in the early stages of digital transformation, there is a strategic push to embrace innovation, address challenges, and enhance digital competencies. The collaboration between the PMA and banks, paired with regulatory influence and future-oriented initiatives, reflects a commitment to shaping a digitally mature financial landscape in Palestine.

4.4 Research Hypotheses Analysis and Results

4.4.1 Hypotheses Analysis

To ensure the study's hypotheses were accurately tested, the researcher performed linearity tests to validate the use of linear models. These tests are essential for confirming that the relationship is linear between the independent variables (Digital Knowledge,

Digital Skills, Digital Attitude) and the dependent variable (Digital Transformation), fulfilling a key assumption necessary for regression analysis.

4.4.1.1 Simple Linear Regression of Employees Digital Competency

A simple linear regression analysis was performed with an aim to evaluate the influence of employees' digital competency on the digital transformation of banks.

Table 10: Model Summary for Digital Competency

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Dig. Comp.	0.468	0.219	0.217	0.5425

Table 11: ANOVA Results for Digital Competency

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	29.274	1	29.274	99.467	0.000
Residual	104.479	355	0.294		
Total	133.753	356			

Table 12: Coefficients for Digital Competency

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.171	0.259		4.515	0.000
Employees Dig. Comp.	0.629	0.063	0.468	9.973	0.000

Based on the tables above, the simple linearity model significantly indicated 21.9% of the variance in digital transformation outcomes, as shown by an R-square value of 0.219.

Also, The F-statistic of 99.467 ($p < 0.001$) validated the predictive power of digital competency in influencing digital transformation. Therefore, having digitally competent employees is crucial for achieving success in the digital transformation journey.

Furthermore, the regression coefficient for employees' digital competency was 0.629, with a standard error of 0.063, showing a significant positive effect (t-value = 9.973, p-value < 0.001) on digital transformation. This suggests that higher levels of employees' digital competency are associated with better digital transformation outcomes.

4.4.1.2 Multiple Linear Regression

A multiple linear regression analysis was conducted to assess the combined impact of Digital Knowledge, Digital Skills, and Digital Attitude on Digital Transformation, including a summary table of the regression model. This test explains how these variables together influence the dependent variable.

The summary of the multiple linear regression analysis, which includes Digital Knowledge, Digital Skills, and Digital Attitude as independent variables, provided these insights:

Table 13: Model Summary for Digital Knowledge, Skills, and Attitude

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Dig. Comp.	0.503	0.253	0.246	0.5321

Table 14: ANOVA Results for Digital Knowledge, Skills, and Attitude

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	33.805	3	11.268	39.797	0.000
Residual	99.949	353	0.283		
Total	133.753	356			

Table 15: Coefficients for Digital Knowledge, Skills, and Attitude

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.120	0.256		4.376	0.000
Dig. Know.	0.394	0.76	0.344	5.185	0.000
Dig. Skills	-0.064	0.71	-0.056	-0.892	0.373
Dig. Attitude	0.305	0.070	0.258	4.370	0.000

R-squared was 0.253, suggesting that the model explains about 25.3% of the variability in Digital Transformation. This is slightly higher than the R-squared values from the simple linear regression models, suggesting that combining these variables offers a marginally better explanation of Digital Transformation. Also, the F-statistic of 39.797 ($p < 0.001$) supported the significance influence of these variables on digital transformation.

The constant coefficient was 1.120, demonstrating the baseline level of digital transformation when all independent variables are zero. Digital Knowledge coefficient was 0.394, indicating a positive impact on Digital Transformation. This variable is statistically significant ($p < 0.001$), suggesting a strong association with Digital Transformation.

As for Digital Skills, the coefficient was -0.064, and with a p-value of 0.373, which is not statistically significant at the 0.05 level. This proposed that, within the context of this model, Digital Skills may not have a significant impact on Digital Transformation in the presence of the other variables.

On the contrary, Digital Attitude coefficient was 0.305 with a p-value < 0.001, representing a significant impact on Digital Transformation.

To summarize, the multiple linear regression analysis explored the combined effects of Digital Knowledge, Skills, and Attitude on Digital Transformation, revealing several key findings. It was noted that in this analysis a continued significance of Digital Knowledge and Digital Attitude was found, emphasizing its important role in influencing Digital Transformation. Conversely, Digital Skills did not emerge as significant factor within this more comprehensive model, hinting that its contribution to Digital Transformation might be more subtle or potentially overshadowed by the more pronounced influence of Digital Knowledge.

Following these two analysis models, the hypothesis can be translated as follows.
H1: There is no statistically significant impact of employees' digital knowledge on the digital transformation of local Palestinian banks.

The multiple linear regression test demonstrated the significant impact of employees' digital knowledge on the digital transformation of local Palestinian banks. As the coefficient was 0.394, the standard error = 0.076, the t-value = 5.185, and p-value < 0.001. Therefore, this null hypothesis is rejected.

H2: There is no statistically significant impact of employees' digital skills on the digital transformation of local Palestinian banks.

Digital Skills coefficient was 0.064, standard error = 0.071, t-value = -0.892, p-value = 0.373. These statistical indications support the null hypothesis, taking into consideration the complex nature and the different factors which affects the digital transformation journey in the local Palestinian banks.

H3: There is no statistically significant impact of employees' digital attitude on the digital transformation of local Palestinian banks.

The statistical tests reject this null hypothesis, where digital attitude coefficient= 0.305, standard error = 0.070, t-value = 4.370, and p-value < 0.001. This presents its significant impact on the digital transformation of local Palestinian banks.

In conclusion, the linearity tests and regression analyses provided a comprehensive evaluation of the hypotheses. The significant impacts of Digital Knowledge and Attitude on Digital Transformation, supported by statistical evidence, lead to the rejection of the null hypotheses for H1 and H3. For H2, Digital skills did not present a significant effect. The multiple regression analysis further underscores the importance of Digital Knowledge and Attitude while indicating the complex interaction of Digital Skills in the context of other variables. These findings offer valuable insights into the factors driving digital transformation in Palestinian local banks, highlighting the critical role of digital competence among employees.

H4: There is no statistically significant impact of employees' demographic variables (Gender, Age, Academic Qualifications, Job Level, Years of Experience) on local Palestinian banks employees' digital competence.

To test this hypothesis, the researcher used the means test to determine the impact of local Palestinian banks employees’ demographic variables on their digital competencies. The

below tables indicate a detailed analysis for employees' Gender, Age, Academic Qualifications, Job Level, and Years of Experience in the banking sector.

(1) According to Gender

Table 16: Descriptive Statistics for Demographic Variables – Gender

Gender		Digital Knowledge	Digital Skills	Digital Attitude
Male	Variance	.353	.247	.309
	N	186	186	186
	Mean	4.9763	4.0667	4.1516
	Std. Deviation	.59391	.49676	.55568
Female	Variance	.434	.291	.210
	N	171	171	171
	Mean	4.8199	4.0152	4.0363
	Std. Deviation	.65893	.53972	.45848
Total	Variance	.397	.268	.264
	N	357	357	357
	Mean	4.9014	4.0420	4.0964
	Std. Deviation	.62989	.51769	.51398

Table 17: Means Test Results to Indicate the Impact of Local Banks Employees Gender on Their Digital Competencies

			Sum of Squares	Df	Mean Square	F	Sig.
Digital Knowledge, Gender	Between Groups	(Combined)	2.181	1	2.181	5.567	.019
	Within Groups		139.068	355	.392		
	Total		141.249	356			
Digital Skills, Gender	Between Groups	(Combined)	.236	1	.236	.880	.349
	Within Groups		95.174	355	.268		
	Total		95.410	356			
Digital Attitude, Gender	Between Groups	(Combined)	1.186	1	1.186	4.532	.034
	Within Groups		92.860	355	.262		
	Total		94.045	356			

Drawing conclusions from the tables and the results of the analysis of variance (ANOVA) test, several key findings emerge:

- Digital Knowledge:

- There exists a statistically significant difference in digital knowledge between male and female employees.

- Male employees exhibit a higher average level of digital knowledge compared to their female colleagues.

- Digital Skills:

- No statistically significant difference in digital skills is observed between male and female employees.

- This implies a similarity in the level of digital skills between males and females.

- Digital Attitude:

- A statistically significant difference in digital attitudes is identified between male and female employees.

- Male employees demonstrate a higher average digital attitude compared to female employees.

In summary, these results highlight the significant role of gender in influencing the level of digital knowledge and attitudes among employees. While no statistical effect on digital skills is observed, the findings highlight the importance of understanding gender dynamics in the context of enhancing digital competence within banks. This recognition can inform strategies aimed at fostering a balanced and inclusive approach to digital skill development and attitude improvement across diverse gender groups.

(2) According to Age

Table 18: Descriptive Statistics for Demographic Variables – Age

Age		Digital Knowledge	Digital Skills	Digital Attitude
20-30	Variance	.306	.243	.257
	N	188	188	188
	Mean	4.8787	4.0128	4.0777
	Std. Deviation	.55362	.49321	.50678
31-40	Variance	.511	.296	.271
	N	161	161	161
	Mean	4.9180	4.0795	4.1081
	Std. Deviation	.71466	.54373	.52057
41-50	Variance	.251	.314	.320
	N	8	8	8
	Mean	5.1000	3.9750	4.3000
	Std. Deviation	.50143	.55997	.56569
Total	Variance	.397	.268	.264
	N	357	357	357
	Mean	4.9014	4.0420	4.0964
	Std. Deviation	.62989	.51769	.51398

Table 19: Means Test Results to Indicate the Impact of Local Banks Employees Age on Their Digital Competencies

			Sum of Squares	df	Mean Square	F	Sig.
Digital Knowledge, Age	Between Groups	(Combined)	.457	2	.228	.574	.564
		Linearity	.325	1	.325	.818	.366
		Deviation from Linearity	.131	1	.131	.330	.566
	Within Groups		140.793	354	.398		
	Total		141.249	356			
Digital Skills, Age	Between Groups	(Combined)	.423	2	.212	.788	.455
		Linearity	.234	1	.234	.872	.351
		Deviation from Linearity	.189	1	.189	.704	.402
	Within Groups		94.987	354	.268		
	Total		95.410	356			
Digital Attitude, Age	Between Groups	(Combined)	.420	2	.210	.793	.453
		Linearity	.251	1	.251	.951	.330
		Deviation from Linearity	.168	1	.168	.636	.426
	Within Groups		93.626	354	.264		

	Total	94.045	356			

Analyzing the tables and outcomes of the analysis of variance (ANOVA) test concerning age, the following conclusions can be drawn:

- Digital Knowledge:

- No statistically significant difference in digital knowledge is observed among different age groups (20-30, 31-40, 41-50).

- Employees in distinct age categories exhibit similar levels of digital knowledge.

- Digital Skills:

- No statistically significant difference in digital skills is found across age groups.

- The findings suggest uniform levels of digital skills among employees in various age brackets.

- Digital Attitudes:

- No statistically significant difference in digital attitudes is identified between age groups.

- Employees belonging to different age brackets demonstrate comparable averages in digital attitudes.

In summary, the results indicate that age does not carry a statistically significant influence on the levels of digital knowledge, skills, and attitudes among employees in local Palestinian banks.

(3) According to Academic Qualifications

Table 20: Descriptive Statistics for Demographic Variables – Academic Qualifications

Academic Qualification		Digital Knowledge	Digital Skills	Digital Attitude
Diploma	Variance	.152	.128	.152
	N	5	5	5
	Mean	4.6800	3.8400	3.8800
	Std. Deviation	.38987	.35777	.38987
Bachelor	Variance	.362	.275	.257
	N	286	286	286
	Mean	4.9084	4.0434	4.0930
	Std. Deviation	.60163	.52430	.50668
Masters	Variance	.572	.251	.307
	N	66	66	66
	Mean	4.8879	4.0515	4.1273
	Std. Deviation	.75661	.50146	.55430
Total	Variance	.397	.268	.264
	N	357	357	357
	Mean	4.9014	4.0420	4.0964
	Std. Deviation	.62989	.51769	.51398

Table 21: Means Test Results to Indicate the Impact of Local Banks Employees Academic Qualifications on Their Digital Competencies

			Sum of Squares	df	Mean Square	F	Sig.
Digital Knowledge, Academic Qualification	Between Groups	(Combined)	.271	2	.136	.340	.712
		Linearity	.001	1	.001	.002	.965
		Deviation from Linearity	.270	1	.270	.679	.411
	Within Groups		140.978	354	.398		
	Total		141.249	356			
Digital Skills, Academic Qualification	Between Groups	(Combined)	.211	2	.105	.391	.676
		Linearity	.044	1	.044	.164	.685
		Deviation from Linearity	.166	1	.166	.618	.432
	Within Groups		95.199	354	.269		
	Total		95.410	356			
Digital Attitude, Academic Qualification	Between Groups	(Combined)	.300	2	.150	.567	.568
		Linearity	.161	1	.161	.608	.436
		Deviation from Linearity	.139	1	.139	.527	.469
	Within Groups		93.745	354	.265		

	Total	94.045	356			

Examining the outcomes of the analysis of variance (ANOVA) test for academic qualification, the following conclusions can be drawn:

- Digital Knowledge:

- No statistically significant difference in digital knowledge is observed among diploma, bachelor's, and master's degree holders.

- Academic qualification does not significantly impact the level of employees' digital knowledge.

- Digital Skills:

- No statistically significant difference in digital skills is found between diploma, bachelor's, and master's degree holders.

- The results suggest that academic qualification does not have a statistical effect on the level of digital skills among employees.

- Digital Attitudes:

- No statistically significant difference in digital attitudes is identified between diploma, bachelor's, and master's degree holders.

- It is evident from the results that academic qualification does not play a statistical role in determining the level of employees' digital attitudes.

In summary, the academic qualifications of employees in local Palestinian banks do not demonstrate a statistical impact on digital knowledge, digital skills, and digital attitudes. These findings emphasize the notion that, regardless of educational background,

employees demonstrate similar levels of digital competence in the context of the studied variables.

(4) According to Job Title/Level

Table 22: Descriptive Statistics for Demographic Variables – Job Level

Job Level		Digital Knowledge	Digital Skills	Digital Attitude
Officer	Variance	.395	.263	.255
	N	262	262	262
	Mean	4.8313	4.0015	4.0450
	Std. Deviation	.62839	.51312	.50525
Supervisor/ Head of Section	Variance	.294	.255	.293
	N	51	51	51
	Mean	5.0471	4.0941	4.1725
	Std. Deviation	.54198	.50494	.54114
Deputy Manager	Variance	.618	.163	.261
	N	14	14	14
	Mean	5.0571	4.2571	4.3857
	Std. Deviation	.78614	.40328	.51119
Manager/Head of Department	Variance	.351	.337	.199
	N	28	28	28
	Mean	5.1571	4.1714	4.2357
	Std. Deviation	.59219	.58046	.44573
Senior Manager	Variance	.180	.180	.020
	N	2	2	2
	Mean	5.7000	4.7000	4.9000
	Std. Deviation	.42426	.42426	.14142
Total	Variance	.397	.268	.264
	N	357	357	357
	Mean	4.9014	4.0420	4.0964
	Std. Deviation	.62989	.51769	.51398

Table 23: Means Test Results to Indicate the Impact of Local Banks Employees Job Level on Their Digital Competencies

	Sum of Squares	df	Mean Square	F	Sig.

Digital Knowledge, Job Level	Between Groups	(Combined)	5.816	4	1.454	3.779	.005
		Linearity	5.089	1	5.089	13.227	.000
		Deviation from Linearity	.727	3	.242	.630	.596
	Within Groups		135.433	352	.385		
	Total		141.249	356			
Digital Skills, Job Level	Between Groups	(Combined)	2.551	4	.638	2.417	.048
		Linearity	1.992	1	1.992	7.552	.006
		Deviation from Linearity	.558	3	.186	.706	.549
	Within Groups		92.859	352	.264		
	Total		95.410	356			
Digital Attitude, Job Level	Between Groups	(Combined)	3.994	4	.998	3.903	.004
		Linearity	2.936	1	2.936	11.475	.001
		Deviation from Linearity	1.058	3	.353	1.379	.249
	Within Groups		90.052	352	.256		
	Total		94.045	356			

Analyzing the outcomes of the analysis of variance (ANOVA) test for the job level in the bank, the following conclusions can be drawn:

- Digital Knowledge:

- A statistically significant difference is observed in digital knowledge between levels of employees in the bank.

- Linearity analysis reveals a positive and significant association between digital knowledge and job level.

- Digital Skills:

- A statistically significant difference is identified in digital skills between levels of employees in the bank.

- Linearity analysis demonstrates a positive and significant association between digital skills and job level.

- Digital Attitudes:

- A statistically significant difference is noted in digital attitudes between levels of employees in the bank.

- Linearity analysis indicates a positive and significant association between digital attitudes and job level.

In summary, the analysis underlines a statistically significant effect of job level on the digital knowledge, digital skills, and digital attitudes of employees in the bank. This suggests that the hierarchical position within the organizational structure plays a pivotal role in determining employees' preparedness for digital transformation.

(5) According to years of experience in the Banking Sector

Table 24: Descriptive Statistics for Demographic Variables – Years of Experience in the Banking Sector

Years of Experience		Digital Knowledge	Digital Skills	Digital Attitude
Less than a year	Variance	.355	.282	.222
	N	33	33	33
	Mean	4.8788	3.9879	4.1758
	Std. Deviation	.59569	.53136	.47106
1-5 years	Variance	.285	.248	.279
	N	115	115	115
	Mean	4.9252	4.0748	4.1217
	Std. Deviation	.53342	.49804	.52828
6-10 years	Variance	.512	.270	.223
	N	123	123	123
	Mean	4.8390	3.9870	4.0195
	Std. Deviation	.71548	.51961	.47177
11-20 years	Variance	.408	.292	.320
	N	75	75	75
	Mean	4.9707	4.1227	4.1333
	Std. Deviation	.63900	.54016	.56600

More than 20 years	Variance	.385	.234	.304
	N	11	11	11
	Mean	4.9455	3.9273	4.2000
	Std. Deviation	.62026	.48392	.55136
Total	Variance	.397	.268	.264
	N	357	357	357
	Mean	4.9014	4.0420	4.0964
	Std. Deviation	.62989	.51769	.51398

Table 25: Means Test Results to Indicate the Impact of Local Banks Employees Years of Experience on Their Digital Competencies

			Sum of Squares	df	Mean Square	F	Sig.
Digital Knowledge, Years of Experience	Between Groups	(Combined)	.942	4	.235	.591	.670
		Linearity	.070	1	.070	.175	.676
		Deviation from Linearity	.872	3	.291	.729	.535
	Within Groups		140.307	352	.399		
	Total		141.249	356			
Digital Skills, Years of Experience	Between Groups	(Combined)	1.225	4	.306	1.145	.335
		Linearity	.032	1	.032	.120	.730
		Deviation from Linearity	1.193	3	.398	1.487	.218
	Within Groups		94.184	352	.268		
	Total		95.410	356			
Digital Attitude, Years of Experience	Between Groups	(Combined)	1.229	4	.307	1.165	.326
		Linearity	.028	1	.028	.106	.745
		Deviation from Linearity	1.201	3	.400	1.519	.209
	Within Groups		92.816	352	.264		
	Total		94.045	356			

Drawing conclusions from the analysis of variance (ANOVA) test for years of experience in the banking sector, the following summarization can be made:

- Digital Knowledge:

- No statistically significant difference is observed in digital knowledge based on years of experience in the banking sector.

- The results imply an absence of a substantial correlation between digital knowledge and the years of experience, suggesting that longer experience may not necessarily lead to increased digital knowledge.

- Digital Skills:

- No statistically significant difference in digital skills is found based on years of experience in the banking sector.

- The results also indicate a lack of a significant correlation between digital skills and years of experience.

- Digital Attitudes:

- No statistically significant difference is identified in digital attitudes based on years of experience in the banking sector.

- The findings suggest no correlation between digital attitudes and years of experience, indicating that long experience may not significantly contribute to the development of positive digital attitudes.

In conclusion, the analysis highlights that years of experience in the banking sector do not appear to be a critical factor in determining the level of digital knowledge, digital skills, and digital attitudes among employees. However, it's crucial to note that the overall analysis reveals a statistically significant impact of employee demographic variables (gender, age, academic qualifications, job level, years of experience) on the digital competence of local Palestinian bank employees.

H5: There is no statistically significant impact of employees' demographic variables (Gender, Age, Academic Qualifications, Job Level, Years of Experience) on the digital transformation of local Palestinian banks.

To test this hypothesis, the researcher used the means test to determine the impact of local Palestinian banks employees' demographic variables on banks digital transformation. The below tables indicate a detailed analysis for employees' Gender, Age, Academic Qualifications, Job Level, and Years of Experience in the banking sector.

(1) According to Gender

Table 26: Descriptive Statistics for Demographic Variables – Gender

Digital Transformation Assessment (Digital Orientation, Digital Maturity, Digital Intensity)				
Gender	Variance	N	Mean	Std. Deviation
Male	.340	186	3.8867	.58352
Female	.330	171	3.8495	.57423
Total	.335	357	3.8689	.57858

Table 27: Means Test Results to Indicate the Impact of Local Banks Employees Gender on Banks Digital Transformation

			Sum of Squares	Df	Mean Square	F	Sig.
Digital Transformation Assessment (Digital Orientation, Digital Maturity, Digital Intensity), Gender	Between Groups	(Combined)	.123	1	.123	.368	.544
	Within Groups		119.048	355	.335		
	Total		119.172	356			

The ANOVA table reveals a p-value of 0.544. This result suggests a lack of statistical significance in the effect of gender on digital transformation. Therefore, based on this

analysis, it can be concluded that gender does not apply a statistically significant influence on digital transformation in local Palestinian banks. This finding aligns with the fifth hypothesis suggesting that demographic variables, including gender, do not have a statistically significant effect on digital transformation.

(2) According to Age

Table 28: Descriptive Statistics for Demographic Variables – Age

Digital Transformation Assessment (Digital Orientation, Digital Maturity, Digital Intensity)				
Age	Variance	N	Mean	Std. Deviation
20-30	.274	188	3.8578	.52388
31-40	.409	161	3.8762	.63983
50-41	.316	8	3.9833	.56203
Total	.335	357	3.8689	.57858

Table 29: Means Test Results to Indicate the Impact of Local Banks Employees Age on Banks Digital Transformation

			Sum of Squares	df	Mean Square	F	Sig.
Digital Transformation Assessment (Digital Orientation, Digital Maturity, Digital Intensity), Age	Between Groups	(Combined)	.136	2	.068	.203	.816
		Linearity	.086	1	.086	.255	.614
		Deviation from Linearity	.051	1	.051	.151	.698
	Within Groups		119.035	354	.336		
	Total		119.172	356			

The results derived from the ANOVA table, investigated the impact of age on digital transformation in local Palestinian banks, revealing a p-value of 0.816. This outcome implies a lack of statistical significance in the effect of age on digital transformation. Consequently, this result provides further backing for the fifth hypothesis, asserting that demographic variables, including age, do not have a statistically significant influence on digital transformation in local Palestinian banks.

(3) According to Academic Qualifications

Table 30: Descriptive Statistics for Demographic Variables – Academic Qualifications

Digital Transformation Assessment (Digital Orientation, Digital Maturity, Digital Intensity)				
Academic Qualifications	Variance	N	Mean	Std. Deviation
Diploma	.154	5	4.4800	.39271
Bachelor	.321	286	3.8583	.56617
Masters	.389	66	3.8687	.62385
Total	.335	357	3.8689	.57858

Table 31: Means Test Results to Indicate the Impact of Local Banks Employees Academic Qualifications on Banks Digital Transformation

			Sum of Squares	Df	Mean Square	F	Sig.
Digital Transformation Assessment (Digital Orientation, Digital Maturity, Digital Intensity), Academic Qualifications	Between Groups	(Combined)	1.900	2	.950	2.867	.058
		Linearity	.156	1	.156	.470	.494
		Deviation from Linearity	1.744	1	1.744	5.264	.022
	Within Groups		117.272	354	.331		
	Total		119.172	356			

The findings extracted from the ANOVA table examining the influence of academic qualification on digital transformation in local Palestinian banks present a p-value of 0.058. While this value falls slightly below the conventional significance level of 0.05, it remains in proximity to it. Given the calculated p-value, it can be tentatively concluded that there exists a likelihood of an effect of educational qualification on digital transformation. With the probability value being marginally less than 0.05 (5%), the hypothesis suggesting an impact of educational qualification on digital transformation is statistically acceptable.

(4) According to Job Title/Level

Table 32: Descriptive Statistics for Demographic Variables – Job Level

Digital Transformation Assessment (Digital Orientation, Digital Maturity, Digital Intensity)				
Job Level	Variance	N	Mean	Std. Deviation
Officer	.314	262	3.8122	.56035
Supervisor/ Head of Section	.205	51	4.0575	.45255
Deputy Manager	.445	14	4.0286	.66703
Manager/Head of Department	.613	28	3.9167	.78308
Senior Manager	.180	2	4.7000	.42426
Total	.335	357	3.8689	.57858

Table 33: Means Test Results to Indicate the Impact of Local Banks Employees Job Level on Banks Digital Transformation

			Sum of Squares	df	Mean Square	F	Sig.
Digital Transformation Assessment (Digital Orientation, Digital Maturity, Digital Intensity), Job Level	Between Groups	(Combined)	4.459	4	1.115	3.420	.009
		Linearity	1.982	1	1.982	6.081	.014
		Deviation from Linearity	2.477	3	.826	2.533	.057
	Within Groups		114.713	352	.326		
	Total		119.172	356			

The ANOVA table indicates a statistically significant correlation between Digital Transformation and Job Level ($p = 0.009$) which is less than 0.05 (5%). The results highlight a statistically significant association between Digital Transformation and Job Level in local Palestinian banks.

(5) According to years of experience in the Banking Sector

Table 34: Descriptive Statistics for Demographic Variables – Years of Experience in the Banking Sector

Digital Transformation Assessment (Digital Orientation, Digital Maturity, Digital Intensity)				
Years of Experience	Variance	N	Mean	Std. Deviation
Less than a year	.361	33	3.7818	.60053
1-5 years	.290	115	3.9241	.53849
6-10 years	.312	123	3.8558	.55839

11-20 years	.446	75	3.8418	.66809
More than 20 years	.283	11	3.8848	.53174
Total	.335	357	3.8689	.57858

Table 35: Means Test Results to Indicate the Impact of Local Banks Employees Years of Experience on Banks Digital Transformation

			Sum of Squares	df	Mean Square	F	Sig.
Digital Transformation Assessment (Digital Orientation, Digital Maturity, Digital Intensity), Years of Experience	Between Groups	(Combined)	.679	4	.170	.504	.733
		Linearity	.015	1	.015	.045	.833
		Deviation from Linearity	.664	3	.221	.658	.579
	Within Groups		118.492	352	.337		
	Total		119.172	356			

The ANOVA table's results for the impact of years of experience in the banking sector on digital transformation in local Palestinian banks reveal a high p value of 0.733, surpassing the 0.05 significance level. This indicates a lack of statistically significant influence of years of experience on the digital transformation of local Palestinian banks. Consequently, the hypothesis claiming no significant effect of years of experience in the banking sector on digital transformation is supported by these findings.

In conclusion, the mean test results assessing the impact of employee demographic variables on digital transformation in local Palestinian banks lead to the following;

- Gender: No statistically significant differences exist in the evaluation of digital transformation between male and female employees, with a p-value of 0.544, surpassing the 0.05 threshold.
- Age: No statistical significance exists while evaluating digital transformation among various age groups, as indicated by a p-value of 0.816, exceeding 0.05.

- Academic Qualification: A statistically significant difference in evaluating digital transformation emerges between educational qualification groups, with an overall p-value of 0.058 (less than 0.05). However, it's important to approach this result with caution due to a secondary consideration. The p-value for the error of deviation from linearity is 0.022. This suggests that there might be a difference in the deviation from linearity between levels of educational qualification.
- Job Level: Significant differences in evaluating digital transformation are observed across job levels, supported by an overall p-value of 0.009 (less than 0.05).
- Years of Experience: No statistically significant differences are identified in assessing digital transformation based on years of experience, with a p-value of 0.733, surpassing 0.05.

In summary, the hypothesis that there is no statistically significant effect of most employee demographic variables (except job level) on digital transformation in local Palestinian banks can be accepted based on the general results.

4.4.2 Hypotheses Concluded Results

The overall findings from the analysis lead to the following summary of the hypotheses:

H1: The hypothesis stating that there is no statistically significant impact of employees' digital knowledge on digital transformation in local Palestinian banks is rejected.

H2: The hypothesis stating that there is no statistically significant impact of employees' digital skills on digital transformation in local Palestinian banks is approved.

H3: The hypothesis stating that there is no statistically significant impact of employees' digital orientation on digital transformation in local Palestinian banks is rejected.

H4: The hypothesis stating that there is no statistically significant effect of employee demographic variables on the digital competence of local Palestinian bank employees is partially approved.

H5: The hypothesis stating that there is no statistically significant effect of employee demographic variables on digital transformation in local Palestinian banks is partially approved.

Table 36: Hypotheses Concluded Results

Hypotheses	Result
H1: There is no statistically significant impact of employees' digital knowledge on the digital transformation of local Palestinian banks.	Rejected
H2: There is no statistically significant impact of employees' digital skills on the digital transformation of local Palestinian banks.	Approved
H3: There is no statistically significant impact of employees' digital attitude on the digital transformation of local Palestinian banks.	Rejected
H4: There is no statistically significant impact of employees' demographic variables (Gender, Age, Academic Qualifications, Job Level, Years of Experience) on local Palestinian banks employees' digital competence.	Partially Approved
H5: There is no statistically significant impact of employees' demographic variables (Gender, Age, Academic Qualifications, Job Level, Years of Experience) on the digital transformation of local Palestinian banks.	Partially Approved

Hypothesis 4 (H4) was partially approved, with exceptions noted for gender and job level, where significant impacts on digital competence among local Palestinian bank employees were observed. Statistical analyses indicated that gender differences exist in digital knowledge and attitudes, with males displaying higher levels in these areas compared to females. Furthermore, job level emerged as a significant factor influencing digital competence, with higher-ranking employees demonstrating superior digital knowledge, skills, and attitudes. These findings highlight the significant influence of specific

demographic factors, particularly gender and job level, on the digital competencies of bank employees, suggesting a partial approval of the null hypothesis with noted exceptions.

As for Hypothesis 5 (H5), the analysis led to partial approval, with the exception being the job level's significant impact on digital transformation. This finding points to the critical role of an employee's position within the bank in shaping their engagement with digital transformation efforts. While the null hypothesis was partially approved for other demographic factors such as age, academic qualifications (although there was a borderline significance), and years of experience, due to their non-significant impact on digital transformation, the job level's influence highlights the complexity of how demographic factors interaction with digital transformation processes within the banking sector.

In summary, the study partially supports three out of the five hypotheses, specifically the second, fourth and fifth hypotheses, while rejecting the other two hypotheses.

4.5 Chapter Summary

This Chapter provided a thorough analysis for the details obtained from the distributed questionnaire and the analysis of the research hypotheses, in addition to summarizing the main results from the interview, which provided the researcher with an in-depth understanding of the digital transformation landscape in Palestine.

The analysis of hypotheses explains the pivotal role played by employees' digital competencies—encompassing knowledge, skills, and attitudes—in steering the ongoing digital transformation within local Palestinian banks. The rejection of the first three hypotheses stresses the undeniable impact of digital skills and attitudes on the evolution

of the banking sector. However, the impact of digital skills appears less straightforward in the multiple regression analysis, hinting at a more complicated relationship with digital transformation that may be shaped by additional, unaccounted variables.

Furthermore, when considering the hypotheses presented in the thesis, the findings highlight digital knowledge and digital attitude significance in digital transformation efforts. However, they also indicate that the complexities of digital transformation within Palestinian local banks extend beyond the scope of digital competencies alone, suggesting that a more comprehensive investigation into other influencing factors and the application of more sophisticated models could yield a better understanding of the underlying mechanisms influencing this transformation.

Additionally, insights garnered from the interview held with the Palestinian Monetary Authority, particularly Mr. Amer Jaber, provide a broader understanding of strategic initiatives, existing challenges, and future expectations from the banking sector, in terms of digital transformation. This comprehensive exploration not only contributes valuable insights for policymakers and banks navigating the details of digital transformation but also lays the groundwork for future research in the dynamic landscape of the Palestinian banking sector.

Chapter Five

5.1 Introduction to Discussion

In this chapter, the researcher explained the outcomes drawn from both the systematically distributed questionnaires and the insightful interview with the Palestinian Monetary Authority (PMA). It thoroughly investigated the impact of employees' digital competence and the ongoing digital transformation within the local banking sector in Palestine. Through a detailed analysis of the findings, the chapter offered an exhaustive understanding of the challenges and opportunities influencing banks in this transformative journey. It extended beyond immediate results, proposing strategic recommendations to enhance digital competencies among banking employees, thereby influencing the course of digital transformation. Additionally, the chapter set the stage for future research by highlighting potential topics for further exploration in the dynamic landscape of digital transformation in the Palestinian banking sector.

5.2 Research Questions Discussion

Based on the previous chapter, the researcher was able to summarize proper and detailed answers for the research proposed questions.

Q1: What influence does employees' digital knowledge have on the digital transformation of local Palestinian banks?

The investigation into the influence of employees' digital knowledge on the digital transformation of local Palestinian banks yielded compelling results. Contrary to the initial hypothesis (H1) positing no statistically significant impact, the findings emphasize a substantial correlation between employees' digital knowledge and the advancements in digital transformation within the banks. The statistical analysis reveals a very high degree of digital knowledge among employees, indicating that a knowledgeable workforce is a

driving force behind the successful implementation of digital initiatives. This aligns with contemporary perspectives emphasizing the pivotal role of a technologically literate workforce in navigating and fostering digital evolution in the banking sector.

Q2: What roles do employees' digital skills play in shaping the digital transformation of local Palestinian banks?

The research findings confirmed the null hypothesis (H2), indicating no significant direct impact of employees' digital skills on the digital transformation of local Palestinian banks. While digital skills alone may not directly drive transformation, they could play a crucial role alongside other unmeasured factors. Skilled employees are key for managing technological complexities and driving innovation, highlighting the need for further research to explore the broader ecosystem of factors influencing digital transformation.

Moreover, the outcomes suggest that digital skills, while valuable for operational proficiency, have a complex and less distinct impact on broader digital transformation initiatives than anticipated. The success of these initiatives likely involves a complicated integration of multiple factors, where digital skills are one of many components. The alignment of digital skills with strategic objectives, organizational culture, and leadership vision may significantly influence digital transformation outcomes.

Furthermore, the findings necessitate a re-evaluation of the assumption that digital skills alone can drive significant change. For digital skills to effectively contribute to transformation, they must be integrated within a framework that includes supportive leadership, a culture of innovation, and strategic alignment with the bank's goals. Thus, the impact of digital skills on transformation may depend on their strategic deployment within a broader organizational context.

Q3: What is the impact of employees' digital attitude on the digital transformation of local Palestinian banks?

In opposing the assumption (H3) of no statistically significant impact, the results reveal a pronounced influence of employees' digital attitudes on the digital transformation of local Palestinian banks. The positive correlation suggests that employees who embrace positive attitudes toward technology contribute significantly to the ongoing digital transformation processes. Their openness and enthusiasm for embracing technological advancements play a vital role in fostering a culture of innovation and adaptability, these employees are considered as crucial elements for the success of digital initiatives within the banking sector. This finding highlights the need for cultivating a positive digital culture among employees to enhance the overall effectiveness of digital transformation efforts.

Q4: Are the local Palestinian banks employees' digital competence affected by the employees' demographic variables (Gender, Age, Academic Qualifications, Job Level, Years of Experience)?

This question partially supports the hypothesis (H4), indicating that employees' demographic variables have no statistically significant impact on their digital competence. However, the results pointed out certain situations where job level and gender have an impact on digital competencies. It was observed that male employees generally possess higher digital knowledge and attitudes compared to females, suggesting a gender disparity in digital proficiency. This may be related to gender differences in the use of digital technology or different access levels/ expose rate to digital training.

Furthermore, the analysis revealed that employees at higher job levels acquired noticeable digital competencies, which might be due to the nature of their roles necessitating a deeper engagement with digital tools and strategic decision-making processes. These roles often require a comprehensive understanding of digital systems, leading to enhanced opportunities for developing digital skills. These findings highlighted the need to address gender gaps in digital proficiency and recognized the importance of job level within the bank as a determinant of an employee's digital competence, thereby providing a clear perspective on the relationship between demographic factors and digital competence.

As for the rest of the demographic variables (Age, Academic Qualifications, Years of Experience) the results indicated a no significant impact for them on local Palestinian banks employee’s digital competence, which might be attributed to the fact of having a regulatory authority as the PMA which forms the policies which all employees must adhere to and follow, regarding their age, academic qualification and years off experience.

Q5: Do the employees' demographic variables (Gender, Age, Academic Qualifications, Job Level, Years of Experience) affect the digital transformation of local Palestinian banks?

The research findings, aligned partially with hypothesis H5, where demographic variables as gender, age, academic qualifications, and years of experience had no significant impact on the digital transformation of the local Palestinian banks. The lack of significant impact from these demographic variables indicates that digital transformation efforts are inclusive, neglecting individual differences in age, educational background, and experience, and emphasizing the collective effort towards digital progression within the local Palestinian banking sector.

However, an exception was noted explaining the significant role of job level. The impact of job level on digital transformation proposes that individuals in higher positions, who are often responsible for leading change, have a more direct influence on the adoption and implementation of digital initiatives. Their strategic involvement and decision-making capacity can significantly steer digital transformation efforts. This indicates that the capacity to effect digital change within the bank is closely tied to the hierarchical position, which often comes with a broader understanding of the bank's digital vision and a greater ability to mobilize resources towards achieving digital objectives.

5.3 Recommendations

Referring to the questions discussed above, the researcher developed the following recommendation catered to the local Palestinian banks sector, in addition to some recommendations for the Palestine Monetary Authority of which it might be interested in.

5.3.1 Recommendations for Local Palestinian Banks

1) Invest in Continuous Training

Given the positive correlation between employees' digital competence and digital transformation, local Palestinian banks should invest in continuous training programs. These programs can enhance employees' digital knowledge, skills, and attitudes, ensuring they remain well-equipped to navigate the evolving digital landscape.

2) Encourage a Digital-Friendly Culture

Foster a workplace culture that encourages digital innovation and adaptation. Banks should create an environment where employees feel motivated to contribute actively to digital transformation initiatives. This can be achieved through recognition programs, incentives, and open communication channels.

3) Strategic Planning for Digital Development

Develop a comprehensive and strategic plan for digital development mechanisms. This should include a roadmap for adopting new technologies, utilizing customer data analytics, and being tentative to global developments in digital transformation. A well-defined strategy will guide the bank through the dynamic digital landscape.

4) Collaborate with FinTech Partners

Explore collaborations with FinTech companies to leverage innovative solutions. This can include partnerships for developing and implementing cutting-edge digital products and services. Collaborations will not only enhance the bank's digital offerings but also position it as a leader in the local market.

5) Enhance Information Security Measures

As digital transformation brings new opportunities; it also proposes cybersecurity challenges. Banks should prioritize information security by investing in vigorous cybersecurity measures, conducting regular assessments, and ensuring employees are well-trained to identify and mitigate potential risks.

5.3.2 Recommendations for the Palestinian Monetary Authority (PMA)

1) Facilitate Industry-Wide Digital Competency Assessment

The PMA should consider initiating a comprehensive digital competency assessment across the banking sector. This can provide valuable insights into the overall readiness of employees in local banks, helping tailor training programs and support where needed.

2) Promote Collaborative Initiatives

Actively encourage collaborative initiatives between local banks, the PMA, and other stakeholders. Establishing a collaborative ecosystem can facilitate knowledge sharing,

and the development of standardized practices, promoting a collective approach to digital transformation.

3) Address Technological Infrastructure Challenges

Recognizing the challenges caused by limitations in technological infrastructure, the PMA should collaborate with relevant parties to address these issues. This may involve advocating for improved 4G services, promoting cloud service utilization, and facilitating partnerships to overcome existing constraints.

4) Regularly Update Digital Transformation Strategies

In alignment with global best practices, the PMA should periodically review and update its digital transformation strategy. This ensures that strategies remain relevant, incorporating the latest advancements in technology and addressing emerging challenges in the digital landscape.

5) Promote Financial Inclusion Through Digital Initiatives

Encourage local banks to focus on digital initiatives that promote financial inclusion. This could involve supporting the development of innovative digital products and services targeting underserved populations, thereby fostering a more inclusive and accessible financial ecosystem.

5.4 Limitations

The research encountered several limitations that influenced the depth and scope of the study. Firstly, the secretive nature of some local Palestinian banks posed a significant challenge during the data collection phase. Some banks were resistant to sharing detailed information, particularly concerning their digital transformation initiatives and employees' competencies. This restricted the researcher's ability to dive into the particulars of specific cases, potentially leaving gaps in the analysis.

Secondly, the limited availability of local studies addressing the topic of bank employees' digital competencies proposed a constraint on the exploration of related literature. The absence of existing research in the Palestinian context made it challenging to draw upon comprehensive secondary sources to inform and contextualize the study. This limitation is inherent in the novelty of the research topic, as digital competencies in the banking sector are still emerging areas of investigation in the region.

Additionally, the lack of accessible secondary sources discussing the main question of the thesis underscores the need for further exploration and academic discourse in this specific domain. Future research should aim to contribute to the development of a strong body of literature on digital competencies in the banking sector, particularly in the Palestinian context.

Despite these limitations, the researcher was able to conclude available data and cooperation from participating banks to offer valuable insights. Acknowledging and addressing these challenges can guide future research endeavors to overcome data access issues, encourage collaboration with banking institutions, and foster a more comprehensive understanding of the dynamics of digital competencies in the banking sector.

5.5 Future Studies

The Researcher found several research gaps while conducting this study, therefore, below are some suggestions for future research topics which can be addressed by interested researchers or the stakeholders of this study.

- Impact of Regulatory Frameworks: Investigate the impact of regulatory frameworks on digital transformation. Assess how regulatory policies influence

the adoption of digital technologies in the Palestinian banking sector and explore potential areas for regulatory improvements to foster innovation.

- In-Depth Analysis of Digital Skills: Given the less direct impact of digital skills on digital transformation observed in this study, future research could explore deeper into specific digital skills and their relevance to various aspects of digital transformation. This could help identify which skills are most critical and how they can be effectively developed and leveraged within the banking context.
- Comparison with Global Benchmarks: Compare the digital transformation progress of local Palestinian banks with global benchmarks. This comparative analysis can identify areas where the banking sector excels and areas that may require further attention, allowing for a more subtle understanding of the local landscape.
- Impact of Job Level on Digital Strategy Execution: Given the significant influence of job level on digital transformation, further research could explore how different roles within the bank's hierarchy contribute to shaping and executing digital strategies. This could include case studies or comparative analyses across various levels of bank management.
- Gender Disparity in Digital Competence: With the study highlighting gender differences in digital knowledge and attitudes, future research could explore the underlying causes of this disparity and its implications for digital transformation. This could involve examining recruitment, training, and career development practices within banks.
- Longitudinal Studies on Digital Transformation: Conduct longitudinal studies to track the progression of digital transformation in local Palestinian banks over an

extended period. This will provide insights into the sustainability of digital initiatives, the evolution of employees' digital competencies, and the long-term impact on the banking sector.

- Evaluation of Technological Infrastructure: Assess the existing technological infrastructure in the Palestinian banking sector. Explore the readiness of infrastructure to support advanced digital solutions and recommend enhancements needed for a seamless and secure digital transformation journey.

These topics do not only build on the current study's findings but also address its limitations and the broader context of digital transformation within the banking industry.

5.6 Chapter Summary

In summary, this study provided valuable insights into the impact of employees' digital competence on banking digital transformation in local Palestinian banks. The findings highlighted the significant influence of digital knowledge and attitudes on the transformational processes.

Recommendations emphasize the need for focused skill development and a positive digital culture within banks, promoting collaboration between financial institutions and regulatory bodies like the Palestinian Monetary Authority (PMA). However, challenges were encountered due to the secretive nature of some banks and an absence of local studies on the topic.

By addressing the research challenges and building on the gained insights, researchers can contribute to advancing the understanding of digital competencies in Palestinian banks, nurturing informed strategies for continued digital transformation.

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Appendices

Appendix (A)

English Questionnaire

Dear Employee,

After Greetings;

The researcher is conducting a study with a title “The impact of employees digital competence on banking digital transformation, case study: Local Palestinian Banks”. This study is a completion requirement for obtaining a master’s degree in strategic planning and fundraising at Arab American University.

In this context, it is based on the principle of digital employee skill, which is considered a factor in the digital operation of banks. This includes the employee’s ability to understand many digital technologies, interact effectively with various electronics and software, and analyze modern digital data with strategic significance, as well as familiarity with various innovations and digital developments.

The researcher hopes that you will kindly give a part of your valuable time to answer the paragraphs due to the importance of your opinion in the success of this study, noting that information is the most important for the purpose of scientific research only.

Thank you for your kind cooperation

Supervisor: Dr. Akram Hamdan

Researcher: Tamara AlQubaj

First Section: Demographics

Please put (✓) in the suitable place.

1. **Gender:**

□ Male □ Female

2. Age:

□ 20-30 □ 31-40 □ 41-50 □ More than 50

3. Academic Qualification:

□ Diploma □ Bachelor □ Masters □ Ph.D or Equivelant

4. Job Level/Title at the Bank:

□ Intern □ Officer □ Supervisor/ Head of Section

□ Deputy Manager □ Manager/Head of Department □ Senior Manager

□ Executive Manager

5. Years of Experience in the Banking Sector:

□ Less than a year □ 1-5 years □ 6-10 years

□ 11-20 years □ More than 20 years

6. What is the department your work is affiliated with?

□ Customer Service □ Loan Facilities □ Marketing

□ Business Development □ Information Technology □ Operations

□ Risk Management □ Collection □ Other

7. How long have you been working in your latest job (latest bank)?

□ Less than a year □ 1-5 years □ 6-10 years

□ 11-20 years □ More than 20 years

8. Please Specify the name of the bank (OPTIONAL)

□ Bank of Palestine □ Quds Bank □ Palestine Investment Bank

□ Arab Islamic Bank □ Safa Bank □ Palestine Islamic Bank

□ The National Bank

Second Section:

Please put (✓) in the suitable place.

Number	Paragraphs	Degree				
		Strongly Agree	**Agree**	**Undecided**	**Disagree**	**Strongly Disagree**
The First Section: Digital Competence						
It consists of three areas: digital knowledge, digital skills, and digital attitude. It includes the effective integration of these areas across the technological, cognitive, and social sectors. It expresses the desire, ability, and professional use of digital technology (phones, social networking sites, email, mobile applications,) and the ability to search and evaluate information online.						
The First Dimension: Digital Knowledge						

It refers to the ability to use and understand digital tools and information effectively, including collecting, organizing, and updating information in a digital environment. Examples of digital literacy include; Realizing the importance of creating a distinct and different password for the applications used, distinguishing between different communication channels (email, WhatsApp) and using the correct channel when communicating with customers, he is aware that applications collect his private data and use it to analyze his behavior.						
1	I am aware of current digital trends for bank management that are relevant to my job role.					
2	I keep up with the latest digital developments in the field of digital banking.					
3	I think my digital literacy level is good.					
4	I am confident in my understanding of digital banking terminology.					
5	I am constantly developing my digital knowledge.					
Number	**Paragraphs**	**Degree**				
		Strongly Agree	**Agree**	**Undecided**	**Disagree**	**Strongly Disagree**
The Second Dimension: Digital Skills						
The ability to use and interact with information and communication technologies effectively includes digital problem solving, technical competence, critical thinking, creativity and collaboration. Examples of digital skills include: Ability to fix camera and microphone problems during online meetings. Able to identify suspicious emails. Knows how to open shared links. Uses online forms to collect and analyze data.						
6	I can use digital tools to complete my daily tasks at the bank.					
7	I use data analysis software easily.					

8	I see that my digital skills are advanced.					
9	I am confident in my ability to discover technical problems and find a solution or report them correctly.					
10	I use my digital skills to improve business processes iteratively.					
Number	**Paragraphs**	**Degree**				
		Strongly Agree	**Agree**	**Undecided**	**Disagree**	**Strongly Disagree**
The Third Dimension: Digital Attitude						
It refers to an individual's comfort and tendency to adopt and use digital services and channels, influenced by his perceptions of their usefulness and ease of use. Examples of a digital stance include; Exercise caution before clicking on shared links and prioritize safe search tools. Take precautions not to leave computers or mobile devices unattended in public places, especially coworking spaces. Seek guidance and assistance in learning how to use new applications. Maintain a positive mindset regarding the nature of Technological advances are rapidly changing.						
11	I adopt a positive attitude towards digital changes and innovations in the banking sector.					
12	I prefer adopting new digital methods and solutions in the tasks assigned to me.					
13	I have the ability to adapt when it comes to changing work procedures to keep pace with digital developments.					
14	I would like to provide suggestions to improve the digital architecture within the bank.					
15	I am working to develop a positive					

	digital attitude in my current role.					

Number	Paragraphs	Degree				
		Strongly Agree	**Agree**	**Undecided**	**Disagree**	**Strongly Disagree**
The Second Section: The Impact of Digital Competence on Digital Transformation						
Digital transformation in the banking sector includes a shift towards paperless services that do not require the customer to be present in bank branches to receive services, but rather reinforce the idea of utilizing digital technologies to develop customer experiences and operational efficiencies. This transformation includes adopting advanced digital tools and processes that help shift from offline services to online services. This helps the bank adapt to new competitors, and move from focusing on manual work to focusing on automated work.						
The First Dimension: Impact on Digital Orientation						
The digital orientation strategy is the organization's commitment to adopting digital practices and adopting innovative technology. The strategy plays a major role in reshaping banking operations and enhancing innovation, which ultimately leads to comprehensive digital transformation, improving performance, and creating a competitive advantage in the market.						
1	My digital knowledge facilitates the adoption of digital technologies in my job duties.					
2	My digital skills enhance my ability to use software and digital tools to complete banking operations.					
3	My digital attitude influences my colleagues' approach to adapting to digital changes at the bank.					
4	My digital competency supports the bank's overall digital orientation efforts.					
5	I participate in digital initiatives because of my interest in the					

	digital direction of the bank.					
Number	**Paragraphs**	**Degree**				
		Strongly Agree	**Agree**	**Undecided**	**Disagree**	**Strongly Disagree**
The Second Dimension: Impact on Digital Maturity						
The banking sector's digital maturity strategy is the deliberate and continuous process of enhancing a bank's digital competencies and a digital transformation strategy to effectively navigate the uncertain digital landscape.						
6	My digital knowledge contributes to the bank's progress in terms of its digital maturity in the Palestinian market.					
7	My digital skills enable the bank to introduce pioneering digital solutions in the Palestinian market.					
8	My digital attitude reinforces the culture of adaptability and creativity in my department, which in turn supports the maturity of the digital bank in the Palestinian market.					
9	I can provide examples of projects where my digital competency played a role in enhancing the bank's digital maturity.					
10	My digital competency impacts the future growth and maturity of the digital bank.					
Number	**Paragraphs**	**Degree**				
		Strongly Agree	**Agree**	**Undecided**	**Disagree**	**Strongly Disagree**

The Third Dimension: The Impact on Digital Intensity						
Digital intensity, as a strategy in the context of the banking sector, refers to allocating resources to technology-driven initiatives to enable banks to operate more efficiently and embrace digital transformation, ultimately enhancing their competitiveness in the financial sector.						
11	My digital knowledge contributes to enriching the bank's digital work environment and its ability to provide advanced digital services.					
12	I use my digital skills to manage various digital solutions within the bank.					
13	My digital Attitude could encourage the bank to move towards a proactive approach to achieve digital density and innovate modern digital solutions that suit the Palestinian market.					
14	I can provide examples of projects where my digital competency played a role in enhancing the bank's digital intensity.					
15	My digital competence influences the level of digital density of the bank in the local market.					

Number	**Paragraphs**	**Degree**				
		Strongly Agree	**Agree**	**Undecided**	**Disagree**	**Strongly Disagree**
The Third Section: Assessing Digital Transformation (Orientation, Maturity, and Intensity) in Local Palestinian Banks						

1	There is a clear regulatory framework for digital transformation at the bank.					
2	I perceive that the bank is adopting a digital approach in its services and internal operations.					
3	I believe that the bank is considered to be in the stage of full digital maturity in the Palestinian market.					
4	The bank offers extensive digital products and services compared to local competitors in the Palestinian market.					
5	A bank's digital orientation impacts its ability to adapt to changing customer preferences and requirements.					
6	There are examples of the bank's recent initiatives that demonstrate its maturity and digital intensity in the local Palestinian banking sector.					
7	The bank's digital initiatives are in line with practices in the digital banking sector.					
8	The bank relies on customer data analytics to improve its digital services.					
9	The bank encourages its employees to					

	actively participate in digital transformation.					
10	The bank adapts to the dynamic changes in the financial digital space and is able to address cybersecurity challenges.					
11	The bank is adopting a plan for employee development and digital management.					
12	The bank follows global developments in the field of digital transformation.					
13	The bank follows a plan to manage risks resulting from digital transformation.					
14	The bank can completely transform into a digital bank, as it can provide services to the public through intermediaries and transactions, eliminating paper transactions.					
15	There is a sequence and plan for the bank's digital development mechanisms.					

Questionnaire Ended

Thank You

Appendix (B)

Arabic Questionnaire

حضرة الموظف/ة الفاضل/ة

تحية طيبة وبعد؛

تقوم الباحثة بدراسة عنوانها " تأثير كفاءة الموظفين الرقمية على التحول الرقمي للبنوك، حالة دراسة: البنوك الفلسطينية المحلية ". تأتي هذه الدراسة استكمالاً لمتطلبات الحصول على درجة الماجستير في برنامج التخطيط الاستراتيجي وتجنيد الأموال في الجامعة العربية الأمريكية. وفي هذا السياق، وجب توضيح مفهوم كفاءة الموظفين الرقمية، والتي تعتبر عاملاً حيوياً في عملية التحول الرقمي للبنوك. يشمل ذلك القدرة على فهم واستخدام التقنيات الرقمية بكفاءة، والتفاعل الفعّال مع الأنظمة والبرمجيات المختلفة، والقدرة على تحليل البيانات الرقمية لاتخاذ قرارات استراتيجية، بالإضافة إلى الإلمام بالابتكارات التكنولوجية والتطورات الرقمية الحديثة. وتأمل الباحثة من حضرتكم التكرم بتخصيص جزءٍ من وقتكم الثمين للإجابة عن فقرات الاستبانة لما لرأيكم من أهمية في إنجاح هذه الدراسة، علماً بأن المعلومات التي ستحصل عليها الباحثة لأغراض البحث العلمي فقط.

شاكرة لحسن تعاونكم

المشرف: الدكتور أكرم حمدان

الباحثة: تمارا القبج

القسم الأول: المعلومات الشخصية
يرجى وضع إشارة (✓) في المكان المناسب.

1. الجنس:

☐ ذكر ☐ أنثى

2. العمر:

☐ 20-30 ☐ 31-40 ☐ 41-50 ☐ أكثر من 50

3. المؤهل العلمي:

☐ دبلوم ☐ بكالوريوس ☐ ماجستير ☐ دكتوراه أو ما يعادلها

4. المستوى الوظيفي في البنك:

☐ متدرب ☐ موظف ☐ مشرف / مراقب / رئيس قسم

☐ نائب مدير ☐ مدير / رئيس دائرة ☐ مدير أول

☐ الإدارة التنفيذية / الإدارة العليا

5. سنوات الخبرة في القطاع المصرفي:

☐ أقل من سنة ☐ 1-5 سنوات ☐ 6-10 سنوات

☐ 11-20 سنوات ☐ أكثر من 20 سنة

6. ما هي الدائرة التي يرتبط بها عملك بشكل مباشر؟

☐ خدمة العملاء ☐ التسهيلات المصرفية ☐ التسويق

☐ تطوير الأعمال ☐ تكنولوجيا المعلومات ☐ العمليات

☐ إدارة المخاطر ☐ التحصيل ☐ أخرى

7. منذ متى وانت تعمل في آخر وظيفة (آخر بنك)؟

☐ أقل من سنة ☐ 1-5 سنوات ☐ 6-10 سنوات

☐ 11-20 سنوات ☐ أكثر من 20 سنة

8. يرجى تحديد اسم البنك (اختياري)

☐ بنك فلسطين ☐ بنك القدس ☐ بنك الاستثمار الفلسطيني

☐ البنك الإسلامي العربي ☐ مصرف الصفا ☐ البنك الإسلامي الفلسطيني

☐ البنك الوطني

القسم الثاني:
يرجى وضع إشارة (✓) في المكان المناسب.

الرقم	الفقرات	درجة				
		أوافق بشدة	أوافق	لا رأي	لا أوافق	لا أوافق بشدة
المحور الأول: الكفاءات الرقمية						
وتتكون من ثلاث مجالات وهي: المعرفة الرقمية، المهارات الرقمية، والموقف الرقمي. وتتضمن الدمج الفعّال لهذه المجالات عبر القطاعات التكنولوجية، المعرفية، والاجتماعية. إذ تعبر عن الرغبة، القدرة، والاستخدام الاحترافي للتكنولوجيا الرقمية (الهواتف، مواقع التواصل الاجتماعي، البريد الالكتروني، التطبيقات الهاتفية،...) والقدرة على البحث وتقييم المعلومات عبر الإنترنت.						
المجال الأول: المعرفة الرقمية						
تشير إلى القدرة على استخدام وفهم الأدوات والمعلومات الرقمية بشكل فعّال، بما في ذلك جمع المعلومات وتنظيمها وتحديثها في بيئة رقمية. ومن الأمثلة على المعرفة الرقمية؛ إدراك أهمية انشاء كلمة سر مميزة و مختلفة للتطبيقات المستخدمة، التمييز بين قنوات التواصل المختلفة (ايميل، واتساب) واستخدام القناة الصحيحة عند التواصل مع العملاء، يعّي بأن التطبيقات تقوم بجمع بياناته الخاصة و استخدامها لتحليل سلوكه.						
.1	أطلع على الاتجاهات الرقمية الحالية لإدارة البنك ذات الصلة بدوري الوظيفي.					
.2	أواكب آخر التطورات الرقمية في مجال الخدمات المصرفية الرقمية.					
.3	أرى أن مستوى معرفتي الرقمية جيد.					
.4	أثق من فهمي لمصطلحات الخدمات المصرفية الرقمية.					
.5	أقوم بتطوير معرفتي الرقمية باستمرار.					
الرقم	**الفقرات**	**درجة**				
		أوافق بشدة	**أوافق**	**لا رأي**	**لا أوافق**	**لا أوافق بشدة**
المجال الثاني: المهارة الرقمية						

تشمل القدرة على الاستخدام والتفاعل مع تقنيات المعلومات والاتصالات بشكل فعال، تتضمن حل المشكلات الرقمية والكفاءة التقنية والتفكير النقدي والإبداع والتعاون. ومن الأمثلة على المهارات الرقمية؛ القدرة على إصلاح مشاكل الكاميرا والمايكروفون أثناء الاجتماعات عبر الانترنت، التمكن من تحديد رسائل البريد الاكترونية المشبوهه، يعرف كيفية فتح الروابط المشاركة، يستخدم النماذج عبر الإنترنت لجمع البيانات وتحليلها.						
.6	أستطيع استخدام الأدوات الرقمية لاتمام مهامي اليومية في البنك.						
.7	أقوم باستخدام برامج تحليل البيانات بسهولة.						
.8	أرى أن مستوى مهاراتي الرقمية متقدم.						
.9	أثق من قدرتي على اكتشاف المشكلات التقنية وايجاد حل لها أو التبليغ عنها بشكل صحيح .						
.10	أستخدم مهاراتي الرقمية لتحسين اجراءات العمل بشكل متكرر.						
الرقم	**الفقرات**	**درجة**					
		أوافق بشدة	**أوافق**	**لا رأي**	**لا أوافق**	**لا أوافق بشدة**	
المجال الثالث: الموقف الرقمي							
يشير إلى راحة الفرد وميوله إلى تبني واستخدام الخدمات والقنوات الرقمية، متأثراً بتصوراته عن فائدتها وسهولة استخدامها. ومن الأمثلة على الموقف الرقمي؛ توخي الحذر قبل النقر على الروابط المشتركة وإعطاء الأولوية لأدوات البحث الآمن، اتخاذ الاحتياطات اللازمة لعدم ترك أجهزة الكمبيوتر أو الأجهزة المحمولة دون مراقبة في الأماكن العامة وخاصة أماكن العمل المشتركة، طلب التوجيه والمساعدة في تعلم كيفية استخدام التطبيقات الجديدة، المحافظة على عقلية إيجابية فيما يتعلق بطبيعة التقدم التكنولوجي سريعة التغيير.						
.11	أتبنى موقف إيجابي اتجاه التغييرات و الابتكارات الرقمية في القطاع المصرفي.						
.12	أفضل أتباع أساليب وحلول رقمية جديدة في المهام الموكلة لي.						
.13	لدي قدرة على التكيف عندما يتعلق الأمر بتغيير اجراءات العمل لتواكب التطورات الرقمية.						

14.	أرغب في تقديم اقتراحات لتحسين البنية الرقمية داخل البنك.					
15.	اعمل على تطوير موقف رقمي إيجابي في دوري الحالي.					

الرقم	الفقرات	درجة				
		أوافق بشدة	أوافق	لا رأي	لا أوافق	لا أوافق بشدة
المحور الثاني: تأثير الكفاءات الرقمية على التحول الرقمي						
ويتضمن التحول الرقمي في القطاع المصرفي التحول نحو الخدمات غير الورقية التي لا تستدعي العميل للتواجد في فروع البنك لتلقي الخدمات، ولكن تعزز فكرة الاستفادة من التقنيات الرقمية لتطوير تجارب العملاء والكفاءات التشغيلية. ويشمل هذا التحول اعتماد أدوات وعمليات رقمية متقدمة تساعد على التحول من الخدمات غير المتصلة بالإنترنت إلى الخدمات عبر الإنترنت؛ مما يساعد البنك على التكيف مع المنافسين الجدد، والانتقال من التركيز على الأعمال اليدوية إلى التركيز على الأعمال الآلية. ويتشكل التحول الرقمي كاستراتيجية من ثلاث استراتيجيات سابقة له، وهي: استراتيجية التوجه الرقمي، استراتيجية النضج الرقمي، واستراتيجية الكثافة الرقمية.						
المجال الأول: التأثير على التوجه الرقمي						
تتمثل استراتيجية التوجه الرقمي بالتزام المؤسسة بتبني الممارسات الرقمية وتبني التكنولوجيا المبتكرة. وتلعب الاستراتيجية دوراً رئيسياً في إعادة تشكيل العمليات المصرفية وتعزيز الابتكار، مما يؤدي في النهاية إلى تحول رقمي شامل، تحسين الأداء، وخلق ميزة تنافسية في السوق.						
1.	تسهل معرفتي الرقمية تبني التقنيات الرقمية في مهامي الوظيفية.					
2.	تعزز مهاراتي الرقمية قدرتي على استخدام البرامج والأدوات الرقمية لإنجاز العمليات المصرفية.					
3.	يؤثر موقفي الرقمي على توجه زملائي نحو التكيف مع التغييرات الرقمية في البنك.					
4.	تدّعم كفاءتي الرقمية جهود التوجه الرقمي الشاملة للبنك.					
5.	أشارك في المبادرات الرقمية بسبب اهتمامي بالتوجه الرقمي في البنك.					

الرقم	الفقرات	درجة				
		أوافق بشدة	أوافق	لا رأي	لا أوافق	لا أوافق بشدة
المجال الثاني: التأثير على النضج الرقمي						
تتمثل استراتيجية النضج الرقمي في القطاع المصرفي إلى العملية المتعمدة والمستمرة لتعزيز الكفاءات الرقمية للبنك واستراتيجية التحول الرقمي للتنقل بفعالية في المشهد الرقمي غير المستقر.						
.6	تساهم معرفتي الرقمية في تقدم البنك من ناحية نضجه الرقمي في السوق الفلسطيني.					
.7	تمكن مهاراتي الرقمية البنك من طرح حلول رقمية سباقة في السوق الفلسطيني.					
.8	يعزز موقفي الرقمي من ثقافة القدرة على التكيف والإبداع في دائرتي، و الذي بدوره يدعم نضج البنك الرقمي في السوق الفلسطيني.					
.9	أستطيع تقديم أمثلة على مشاريع لعبت فيها كفاءتي الرقمية دوراً في تعزيز النضج الرقمي للبنك.					
.10	تؤثر كفاءتي الرقمية على النمو المستقبلي ونضج البنك الرقمي.					
الرقم	**الفقرات**	**درجة**				
		أوافق بشدة	**أوافق**	**لا رأي**	**لا أوافق**	**لا أوافق بشدة**
المجال الثالث: التأثير على الكثافة الرقمية						
تشير الكثافة الرقمية، كاستراتيجية في سياق القطاع المصرفي، إلى تخصيص الموارد للمبادرات المعتمدة على التكنولوجيا لتمكين البنوك من العمل بكفاءة أكبر وتبني التحول الرقمي، مما يعزز في نهاية المطاف قدرتها التنافسية في القطاع المالي.						
.11	تساهم معرفتي الرقمية في إثراء بيئة العمل الرقمية في البنك و قدرته في تقديم الخدمات الرقمية المتقدمة.					
.12	أقوم باستغلال مهاراتي الرقمية في إدارة الحلول الرقمية المختلفة داخل البنك.					

13.	من الممكن ان يشجع موقفي الرقمي البنك على الانسياق نحو نهج استباقي لتحقيق الكثافة الرقمية وابتكار حلول رقمية حديثة تلائم السوق الفلسطيني.					
14.	أستطيع تقديم أمثلة على مشاريع لعبت فيها كفاءتي الرقمية دوراً في تعزيز الكثافة الرقمية للبنك.					
15.	تؤثر كفاءتي الرقمية على مستوى الكثافة الرقمية للبنك في السوق المحلي.					

الرقم	الفقرات	درجة				
		أوافق بشدة	أوافق	لا رأي	لا أوافق	لا أوافق بشدة
المحور الثالث: تقييم التحول الرقمي (التوجه، النضج، والكثافة) في البنوك المحلية الفلسطينية						
1.	يوجد إطار تنظيمي واضح للتحول الرقمي في البنك.					
2.	أرى أن البنك يتبنى توجهاً رقمياً في خدماته و عملياته الداخلية.					
3.	أرى أن البنك يعتبر في مرحلة النضج الرقمي الكامل في السوق الفلسطيني.					
4.	يقدم البنك منتجات وخدمات رقمية مكثفة مقارنة بالمنافسين المحليين في السوق الفلسطيني.					
5.	يؤثر التوجه الرقمي للبنك على قدرته على التكيف مع تفضيلات ومتطلبات العملاء المتغيرة.					
6.	يوجد أمثلة على مبادرات البنك الأخيرة التي تظهر نضجه و كثافته الرقمية في القطاع المصرفي الفلسطيني المحلي.					
7.	تتماشى مبادرات البنك الرقمية مع الممارسات في القطاع المصرفي الرقمي.					

.8	يرتكز البنك على تحليلات بيانات العملاء لتحسين خدماته الرقمية.					
.9	يشجع البنك موظفيه على المشاركة الفعّاله في التحول الرقمي.					
.10	يتكيف البنك مع التغيرات الديناميكية في المجال الرقمي المالي وهو قادر على مواجهة تحديات الأمن السيبراني.					
.11	يتبنى البنك خطة لتطوير الموظفين و الإدارة الرقمية.					
.12	يتابع البنك التطورات العالمية في مجال التحول الرقمي.					
.13	يتبع البنك خطة لإدارة المخاطر الناتجة عن التحول الرقمي.					
.14	بإمكان البنك أن يتحول بشكل كامل إلى بنك رقمي، إذ يمكنه تقديم خدمات للجمهور عبر وسطاء و معاملات و تخليه عن المعاملات الورقية.					
.15	يوجد تسلسل و خطة لآليات التطوير الرقمي لدى البنك.					

انتهت الاستبانة

شكراً لكم

Appendix (C)

Interview Questions

Digital Transformation in the Palestinian Banking Sector

1. Can you describe the current state of digital transformation in the Palestinian banking sector?
2. What are the primary digital initiatives or projects that have been undertaken by banks in Palestine in recent years?
3. How do these digital initiatives align with the strategic goals of the Palestinian Monetary Authority and the banking sector in Palestine?
4. What are the key challenges that the Palestinian banking sector faces in its digital transformation journey?

Digital Competencies of Employees

5. How do you assess the digital skills of employees in the Palestinian banking sector?
6. What kind of training and development programs are in place to enhance digital skills among bank employees?
7. How do you measure the digital knowledge of employees in this sector?
8. What role does the Palestinian Monetary Authority play in promoting digital competencies among bank employees?

9. Can you describe the current digital attitudes among employees in the Palestinian banking sector?
10. Are there specific incentives or policies in place to encourage a positive digital attitude among bank employees?

Digital Orientation of Palestinian Monetary Authority

11. How would you describe the digital orientation and strategic focus of the PMA in the context of the banking sector?
12. What kind of regulatory framework does the PMA provide to facilitate digital transformation in banks?
13. How does the PMA collaborate with banks to support their digital initiatives and regulatory compliance?
14. What role does the PMA play in promoting innovation and digital adoption within the banking sector?

Digital Maturity Assessment

15. Can you assess the digital maturity of the Palestinian banking sector as a whole?
16. What are the key indicators or criteria used to measure digital maturity in Palestinian banks?
17. How has the maturity level evolved over the past few years, and what are the driving factors behind these changes?

18. Are there benchmarks or best practices that the banking sector in Palestine looks up to for digital maturity?

Digital Intensity Evaluation

19. How would you measure the digital intensity of the Palestinian banking sector in terms of its digital investments and resources?
20. Can you provide insights into the level of digital intensity in customer-facing services, such as mobile banking and online transactions?
21. How does digital intensity vary among different banks operating in Palestine, and what are the reasons behind these differences?
22. What are the expectations and strategies for enhancing digital intensity in the future?

Appendix (D)

Arabic Interview Questions

اسئلة المقابلة

التحول الرقمي في القطاع المصرفي الفلسطيني

1. هل يمكنك وصف الوضع الحالي للتحول الرقمي في القطاع المصرفي الفلسطيني؟
2. ما هي أبرز المبادرات أو المشاريع الرقمية التي قامت بها البنوك في فلسطين خلال السنوات الأخيرة؟
3. كيف تتوافق هذه المبادرات الرقمية مع الأهداف الإستراتيجية لسلطة النقد الفلسطينية والقطاع المصرفي في فلسطين؟
4. ما هي التحديات الرئيسية التي يواجهها القطاع المصرفي الفلسطيني في رحلة التحول الرقمي؟

الكفاءات الرقمية للموظفين

5. كيف تقيم المهارات الرقمية للعاملين في القطاع المصرفي الفلسطيني؟
6. ما هي نوعية برامج التدريب والتطوير المطبقة لتعزيز المهارات الرقمية بين موظفي البنك؟
7. كيف يتم قياس المعرفة الرقمية للموظفين في هذا القطاع؟
8. ما هو الدور الذي تلعبه سلطة النقد الفلسطينية في تعزيز الكفاءات الرقمية لدى موظفي البنوك؟
9. هل يمكنك وصف الاتجاهات الرقمية الحالية لدى العاملين في القطاع المصرفي الفلسطيني؟

10. هل توجد حوافز أو سياسات محددة لتشجيع السلوك الرقمي الإيجابي بين موظفي البنك؟

التوجه الرقمي لسلطة النقد الفلسطينية

11. كيف تصف التوجه الرقمي والتركيز الاستراتيجي لسلطة النقد الفلسطينية في سياق القطاع المصرفي؟
12. ما هو نوع الإطار التنظيمي الذي توفره سلطة النقد الفلسطينية لتسهيل التحول الرقمي في البنوك؟
13. كيف تتعاون سلطة النقد الفلسطينية مع البنوك لدعم مبادراتها الرقمية وامتثالها التنظيمي؟
14. ما هو الدور الذي تلعبه سلطة النقد الفلسطينية في تعزيز الابتكار والاعتماد الرقمي في القطاع المصرفي؟

تقييم النضج الرقمي

15. هل يمكنك تقييم النضج الرقمي للقطاع المصرفي الفلسطيني ككل؟
16. ما هي المؤشرات أو المعايير الرئيسية المستخدمة لقياس النضج الرقمي في البنوك الفلسطينية؟
17. كيف تطور مستوى النضج خلال السنوات القليلة الماضية، وما هي العوامل الدافعة وراء هذه التغييرات؟
18. هل هناك معايير أو أفضل الممارسات التي يتطلع إليها القطاع المصرفي في فلسطين للنضج الرقمي؟

تقييم الكثافة الرقمية

19. كيف يمكنك قياس الكثافة الرقمية للقطاع المصرفي الفلسطيني من حيث استثماراته وموارده الرقمية؟

20. هل يمكنك تقديم رؤى حول مستوى الكثافة الرقمية في الخدمات التي تواجه العملاء، مثل الخدمات المصرفية عبر الهاتف المحمول والمعاملات عبر الإنترنت؟

21. كيف تختلف الكثافة الرقمية بين البنوك المختلفة العاملة في فلسطين، وما أسباب هذه الاختلافات؟

22. ما هي التوقعات والاستراتيجيات لتعزيز الكثافة الرقمية في المستقبل؟

Appendix (E)

Evaluators List

Name	Academic Rank	Affiliation
Dr. Amal Nazzal	Associate Professor	Birzeit University
Dr. Riyad Jaddal	Assistant Professor	Go Global Co.
Dr. Abdulrahman Tamimi	Associate Professor	Arab American University
Dr. Majeed Mansour	Associate Professor	Arab American University

المخلص

هدفت هذه الدراسة إلى استكشاف أثر الكفاءة الرقمية للموظفين على التحول الرقمي في البنوك المحلية الفلسطينية، باستخدام نهج الأساليب المختلطة. وشمل المجتمع الدراسي موظفي البنوك الفلسطينية المحلية الراغبين في المشاركة، حيث بلغ حجم العينة 357 مشاركاً تم اختيارهم كعينة عشوائية طبقية. وتم جمع البيانات من خلال استبيان وزع بشكلٍ إلكتروني ويدوي، بالإضافة إلى إجراء مقابلة شبه منظمة مع سلطة النقد الفلسطينية. أظهرت النتائج وجود مستوى عالٍ من الكفاءة الرقمية بين موظفي البنوك الفلسطينية المحلية. مع تميز المعرفة الرقمية و الموقف الرقمي كعوامل رئيسية في دفع عجلة التحول الرقمي. أسهمت المهارات الرقمية أيضاً في هذا التحول، لكن بتأثير أقل وضوحاً، مما يشير إلى وجود عوامل تنظيمية واستراتيجية أخرى مؤثرة. لم تظهر المتغيرات الديموغرافية مثل الجنس والعمر والمؤهلات الأكاديمية والخبرة تأثيراً ملحوظاً على الكفاءة الرقمية أو التحول الرقمي، مما يعزز وجود ثقافةٍ رقميةٍ شاملة في البنوك الفلسطينية المحلية. بينما كان للمستوى الوظيفي تأثير معتبر، والذي يُعزى على الأرجح إلى مشاركة الموظفين الأعلى مرتبة في عمليات اتخاذ القرارات الاستراتيجي. وتُختتم الدراسة بتوصيات شاملة للباحثين والسلطات المسؤولة، مشيرة إلى المجالات المحتملة لمزيد من البحث والتحقيق.

الكلمات الدالة:
الكفاءة الرقمية، المعرفة الرقمية، المهارات الرقمية، الموقف الرقمي، التحول الرقمي، التوجه الرقمي، الكثافة الرقمية، النضج الرقمي، البنوك الفلسطينية المحلية.