

# The Role of Digital Technology in Improving Performance of Employees in the Palestinian Banking Sector

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**Abstract:** Digital technology is considered one of the most important developments in our current era, playing a vital role in various sectors worldwide, particularly in the financial and banking sectors. Digital technology serves as a key criterion for evaluating both employees and institutions. The banking sector is one of the vital sectors in Palestine, contributing significantly to supporting the national economy and efficiently meeting customer needs. Hence, this study titled "The Role of Digital Technology in Improving Performance of Employees in the Palestinian Banking Sector" was conducted. The study aims to identify the extent of Palestinian banks' use of digital technology and its impact on employee performance and enhancing performance quality. To achieve this goal, the researcher designed a questionnaire consisting of two main sections: the first section containing demographic information, and the second section comprising two axes. The questionnaire was distributed among a stratified random sample of 350 individuals, from which 320 questionnaires were retrieved, yielding a response rate of 91%. The SPSS program was utilized to process and analyze the data. The study resulted in several findings, most notably that Palestinian banks utilize digital technology to a great extent, and the level of employee performance was high. There exists a positive correlation between the use of digital technology and the increase in effectiveness and quality of performance among employees in the banking sector, where digital technology use explained 33.6% of the variance in employee performance. Based on these results, the researcher recommends the necessity of keeping pace with rapid technological developments to develop human resources and enhance their capabilities. Continuous and systematic training of human resources is also advised to enable them to deal with these rapid changes and enhance their skills and capabilities.

**Keywords:** Digital technology, Digital transformation, Performance, Palestinian banking sector.

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## I. Introduction

Our current era is characterized by intense competition to acquire the latest and best technological advancements. Nearly every sector undergoes rapid changes and seeks to embrace the latest scientific breakthroughs. Among the most sought-after changes are advancements in digital technology, which have become ubiquitous, accessible to all, and cost-effective (Abu al-Rab & Shalal, 2020).

Digital technology has multiple benefits and uses, most notably its beneficial influence on employee performance across various industries, particularly in Palestine's banking industry. This contributes to enhancing performance efficiency and increasing productivity, as employee performance and competence levels are fundamental to the success of institutions (Al-Rifai & Akko, 2014).

Employee performance across various institutions is an important indicator that can be used to determine and classify an institution's position in the market (Noor & Limakrisna, 2019).

Digital technology contributes to the growth of sectors in general, particularly the banking sector. Optimal use of this technology ensures efficient execution of customer-specific operations. It enables customers to conduct their transactions at the right time and place by providing multiple digital platforms, such as account opening services, financing requests, issuance of debit cards, completing purchasing transactions, bill payments, online and mobile transfers, updating customer data, and other services (Islamic Bank of Safwa, 2020).

The digital transformation of banks is now undergoing a real revolution with the use of robots to automate many daily operations and steps. This leads to the utilization of human resources towards more important tasks and

solving other problems, thus saving time and effort for them. Through artificial intelligence, data analysis and support for appropriate decision-making can be leveraged, providing an opportunity to predict customer behaviour.

In addition to this direction, it will contribute to further integration in digital banking services and create more advanced business models and services, enhancing the banking sector, improving employee performance, and fostering economic growth. This integration with customers' lives, whether by banking institutions or the customers themselves, will form the basis for future value-added growth for all stakeholders.

The younger generation is more likely to adopt digital technology since it is thought to be the most user-friendly and to offer the best speed, efficiency, security, and information protection (Islamic Bank of Safwa).

### **1.1 Problem Statement:**

The banking sector in Palestine continuously and rapidly seeks to achieve its goals and increase profitability and productivity efficiently through various available means. Digital technology is considered one of the most important means to achieve these goals. In order to achieve objectives, increase profits, and enhance productivity, bank performance is the main axis through which this can be achieved, and employee performance directly impacts the institution's position and its ability to achieve its goals. As a result, the primary objective of this study is to investigate the link between the two variables: employee performance, which is a dependent variable, and digital technology, which is an independent variable. Through studying this relationship, the study aims to identify the best ways to enhance and maximize employee performance in the Palestinian banking sector. Thus, the problem statement of the study is formulated through the following questions:

What is the level of digital technology usage in Palestinian banks from the perspective of their employees?

What is the level of employee performance in Palestinian banks from their perspective?

Is there a role for the use of digital technology in improving employee performance in Palestinian banks?

Are there statistically significant differences at the significance level ( $\alpha \leq 0.05$ ) between the means of the study sample's individuals' scores on the study axes (use of digital technology and employee performance) in Palestinian banks based on variables (gender, age, educational qualification, years of service)?

### **1.2 Study Objectives:**

The study aims to investigate the level at which digital technology influences employee performance in the Palestinian banking sector and the extent of its impact on achieving the banks' objectives. To achieve this main goal, the following sub-objectives must be attained:

- 1- Identify the level of digital technology usage in operating banks in Palestine.
- 2- Determine the level of employee performance in Palestinian banks from their perspective.
- 3- Uncover the role of digital technology usage in improving employee performance in Palestinian banks.
- 4- Identify the nature of differences between the means of the study sample's individuals' scores on the study axes (use of digital technology and employee performance) in Palestinian banks based on variables (gender, age, educational qualification, years of service).

### **1.3 Study Significance:**

This study addresses the increasing importance of digital technology in improving employee performance in the Palestinian banking sector. The study will focus on exploring the role of digital technology in various aspects of banking operations and identifying the benefits and challenges associated with this technological advancement.

This study will significantly contribute to a deeper understanding of the role of digital technology in enhancing employee performance in the Palestinian banking sector. The results and recommendations will enable better utilization of this technology and support sustainable growth of the banking sector in Palestine.

The significance can be divided into:

#### **1.3.1. Scientific Significance:**

- 1- Maximizing the banks' position in the market and increasing their competitiveness.
- 2- Increasing investments and achieving security in various directions.
- 3- Facilitating customers' access to various banking services with minimal effort and cost.
- 4- Enhancing our understanding of how digital technology can improve employee performance and banking services in Palestine.

### **1.3.2. Practical Significance:**

- 1- Banking administrations continuously strive to increase employee performance and attract new customers, maximizing their competitive position in the market.
- 2- For the establishment of a strong and effective banking sector that attracts new investments through the adoption of digital technology.
- 3- Banks seek to provide the most comprehensive digital programs for customers to save time and effort for both customers and employees alike.
- 4- Supporting the banking sector in Palestine to face the changing challenges in the market and better meet customer needs.
- 5- Providing information and recommendations that contribute to the development of banking strategies and policies in the country.

### **1.4 Study Limitations:**

Temporal Boundaries: This study was conducted in 2023.

Spatial Boundaries: Palestinian banks operating within Palestine.

Scientific Boundaries: All employees within the banking sector operating in Palestine.

## **II. Literature review**

### **2.1. Concept of Digital Technology:**

Digital technology refers to electronic tools, systems, devices, and resources that create, store, or process data. It includes well-known examples such as social media, multimedia, and mobile phones.

Digital technology is a concept that involves the use of electronic and computational technologies and tools to process and transmit information digitally. This entails a transformation from analogue data (which takes continuous values) to digital data (which consists of numbers and digits). Below is a simplified definition of digital technology (Muhammad & Zabid, 2018):

Digital technology is the use of electronic devices, software, and computing to generate, transmit, and process information in a digital format (i.e., as numbers and characters). This includes computers, the internet, smart devices, networks, and specialized software that assist in executing a variety of tasks efficiently and effectively. According to (Abdel Razek, 2019), it is the process of companies transitioning to digital technology-based business models to support the development and innovation of products and services, as well as providing new marketing channels and job opportunities to enhance the value of their products, whether goods or services.

By utilizing digital technology, the efficiency of workers can be improved, and time and effort can be saved, enhancing the quality of services provided to customers and facilitating access to them. Additionally, through the proliferation of digital technology, banks can reach a larger customer base with minimal effort and cost (Abdel Razek, 2019).

Digital technology is distinguished by its ease of storage, which allows enormous amounts of data and information to be saved quickly and affordably using digital storage devices. Digital technology is flexible and has the ability to process and analyze data and information in multiple, flexible, and customizable ways. Among the benefits of digital technology applications are easy and fast communication and connectivity, enabling individuals and institutions to communicate and share information quickly and easily through the internet and digital communication channels. These technologies also feature security and protection, as technical security measures can be implemented to protect digital data from hacking and theft. Digital technology enables the automation of many processes and systems, increasing efficiency and accuracy. Continuous improvement is possible as software and digital systems can be updated and developed easily to meet changing and diverse needs. Through the use of digital technology, time and effort can be saved, and digital technology relies on smart systems and artificial intelligence to process data and make decisions (Muhammad & Zabid, 2018).

Digital technology plays a crucial role in transforming many aspects of our daily lives and developing businesses and industries, making it a fundamental concept in the modern age (Barasa, E. O., 2020).

### **2.2 Requirements for Digital Transformation**

Digital transformation is a comprehensive and strategic change aimed at adopting digital technologies to improve operations and gain a competitive advantage. It begins by building an integrated and strategic digital system and taking all necessary measures to enhance the current situation. To achieve this, it is essential to understand the available digital technological capabilities. To determine the most effective methods and means for digital transformation in the institution, requirements must be determined, and appropriate investment strategies must be devised to propel the digital transformation ahead and accomplish strategic objectives. To ensure the success of the digital transformation process, there must be several fundamental pillars or foundations:

**Vision and Strong Leadership:** There must be a clear vision for digital transformation and strong support from top leadership in the institution. The leadership must commit to change and be prepared to support and guide it (Anna Omarini, 2018).

**Robust Strategy:** Comprehensive plans and strategies for digital transformation should be developed, aligned with the institution's objectives, and the steps and resources required for implementation. This strategy should be robust and executable.

**Transformation Culture:** A culture that promotes openness to change and innovation within the institution must be fostered. Employees should be motivated and trained to embrace digital technology, develop their skills and capabilities, and enhance their confidence in the importance of this technology, assuring them that it does not pose a threat to their security and career future.

**Suitable Technology and Tools:** Appropriate digital technology and tools should be selected and implemented to meet the institution's needs. These technologies should be capable of achieving the specified objectives.

**Data Analysis and Artificial Intelligence:** Data analysis and artificial intelligence should be used to extract value from data and make informed decisions based on the data (Al-Bar, Al-Marhabi, 2018).

**Training and Skill Development:** Employees should be provided with appropriate training and development to understand and effectively use digital technology.

**Security and Protection:** Strong security and protection strategies should be developed to safeguard sensitive data and information.

**Evaluation and Performance Measurement:** Tools and indicators should be developed to measure the progress of the digital transformation process and assess its impact on both employee and institutional performance.

**Encouraging Innovation:** Continuous innovation should be encouraged and supported, and new ideas that leverage digital technology should be implemented.

These requirements are essential for ensuring a successful digital transformation journey within institutions, facilitating adaptation to the digital age, and reaping its benefits (Sabha, 2019).

### **2.3. The Relationship Between Digital Technology and Employee Performance in the Palestinian Banking Sector**

Digital technology is considered a powerful tool to enhance employee performance in the Palestinian banking sector. It plays a crucial role in improving efficiency, effectiveness, providing advanced services to customers, enhancing security and compliance, and thus promoting the development and prosperity of this sector. There is a close relationship between digital technology and increased employee performance in Palestinian banks. Here are some aspects that illustrate this relationship: (World Bank, 2020).

#### **2.3.1. Enhancing Efficiency and Effectiveness:**

Smart technology aids in enhancing the efficiency and effectiveness of banking operations, facilitating faster and more accurate transactions, and providing better services. This is achieved through: (Vial, 2019),

**Time and Effort Savings:** With smart technology, banking transactions can be executed swiftly and easily. For example, customers can transfer funds or pay their bills quickly and easily through mobile phone applications without the need to visit a bank branch. This saves time and effort for both customers and employees alike.

**Accuracy and Reliability:** Reducing human error is crucial. By using digital technology in financial transaction processing and data management, higher accuracy can be achieved, avoiding human errors resulting from stress or oversight.

**Better Customer Service:** By providing digital technology tools such as online support chat and Customer Relationship Management (CRM) systems, banks can offer better service to customers by interacting with them better and understanding their needs more deeply.

**Cost Savings:** Despite the costs of developing and implementing digital technology, it often helps reduce overall costs for banks in the long term by improving operational efficiency and reducing the need for human employees in some functions.

**Competitive Advantage:** The banking sector is highly competitive, and banks that invest in digital technology can be more competitive by providing better services and meeting customer expectations better than their competitors.

Through the aforementioned points, efficiency and effectiveness in the banking sector can be improved through digital technology, enhancing the quality, speed, and accuracy of banking services, contributing to customer satisfaction and achieving business goals more effectively.

### **2.3.2 Improving Decision-Making:**

Enhancing decision-making is a crucial aspect of the importance of digital technology in the banking sector. This aspect can be elucidated as follows: (Al-Masry, 2019).

**Big Data Analytics:** Digital technology enables banks to process vast amounts of data quickly and accurately. This allows them to use data analytics to understand trends and patterns in customer behaviour and asset performance. For instance, data analytics can be used to identify which banking services have the highest demand and profits, thus guiding bank investments more effectively.

**Risk Estimation Improvement:** Digital technology can assist banks in analyzing and estimating risks better. By continuously monitoring and analyzing financial and economic data, banks can predict potential risks and take appropriate actions in advance to mitigate their impact.

**Enhancing Customer Experience:** Through digital technology, banks can better tailor services and products to individual customer needs. Analytics can help understand the depth of customer interaction with the bank and provide suggestions and services that better meet their expectations.

**Operational Efficiency Increase:** Digital technology contributes to improving the bank's internal operations management. For example, artificial intelligence can be used to streamline processes such as request processing and loan issuance faster and more accurately, reducing operational costs and increasing the bank's profitability.

**Real-Time Interaction:** Digital technology can help banks interact with customers in real time, whether through online chat or automated responses to inquiries. This can enhance the customer experience and increase satisfaction.

Adopting digital technology enables banks to make informed financial and managerial decisions based on accurate data and advanced analytics, increasing their ability to achieve better performance, meet customer needs, and achieve higher profitability.

### **2.3.3. Improving Employee Conditions:**

Digital technology enables employees to automate routine tasks, allowing them to focus on creative tasks and provide personalized support to customers. This can be clarified as follows:

**Reducing Routine Burdens:** Digital technology enables banks to automate routine operations such as processing simple financial transactions and daily reports. This relieves employees from the burden of routine tasks and allows them to focus on more complex tasks and creative thinking.

**Directing Human Skills:** Instead of performing routine tasks, employees can use their skills and expertise to provide personalized customer support and make exceptional decisions. This raises the level of customer service and enhances interaction between the bank and customers (Suleiman, 2022).

**Improving Satisfaction and Engagement:** When employees are empowered to perform more challenging and creative tasks, they may experience greater job satisfaction and engagement. This can increase their participation and commitment to better performance at work.

**Skill Development:** With the introduction of new tools and systems through digital technology, employees can develop their skills and learn new techniques. This can make them more qualified to deal with future challenges and increase opportunities for career advancement.

**Enhancing Personal Efficiency:** By using digital technology to perform tasks, employees can increase their personal efficiency and productivity. This can lead to better individual performance and overall bank performance.

#### **2.3.4. Economic Infrastructure Development:**

Investing in digital technology can enhance the development of economic infrastructure for banks, bolstering their ability to compete on the global stage (Zaki, 2021). Providing a more accurate elucidation, economic infrastructure development refers to improving and enhancing the fundamental components that support economic activity in a country overall, and in the banking sector specifically. Through the development of digital technology infrastructure, several aspects can be clarified:

**Enhancing Technological Infrastructure:** With digital technology, it is possible to develop a technological infrastructure that supports communications, networks, cloud infrastructure, and information security. This contributes to enhancing communication and data sharing between individuals and institutions, fostering improved collaboration, innovation in business, and increasing the efficiency of economic operations.

**Strengthening Logistic Infrastructure:** By employing digital technology in supply chain management, transportation, distribution systems, and services, costs of logistics can be reduced, and goods and services can be delivered more efficiently.

**Boosting Energy Infrastructure:** Smart control and guidance technologies can improve energy management and reduce losses in electricity, water, and gas networks. This contributes to conserving resources and energy, thereby enhancing the sustainability of infrastructure.

**Developing New Economic Sectors:** Digital technology can stimulate the development of new industries and innovations in various sectors such as information and communication technology, renewable energy, and green industries, thereby contributing to overall economic growth in the country.

**Enhancing International Competitiveness:** By improving economic infrastructure through digital technology, the position of banks can be strengthened, increasing their ability to compete internationally. This contributes to attracting foreign direct investment and promoting economic growth.

Improving economic infrastructure through investment in digital technology enhances the capacity of banks for sustainable development, contributes to the development of multiple economic sectors, and improves the quality of life for citizens.

#### **2.3.5. Enhancing Security and Compliance:**

Digital technology plays a crucial role in the banking sector, and digital technology can enhance the level of security and compliance with financial laws and regulations (Zaki, 2021). This can be clarified as follows:

**Information Security:** Digital technology contributes to enhancing information security by providing solutions to protect financial data and information from unauthorized access and use. These solutions include secure networks, antivirus and malware protection systems, and encryption technologies. This ensures the safety of financial information for both customers and banking institutions.

**Identity Verification:** Digital technology enables banks to improve identity verification processes for both customers and employees. Technologies such as facial recognition and fingerprint recognition can be used to accurately verify the identity of customers, reducing the likelihood of fraudulent activities.

**Financial Regulation Compliance:** Banking institutions face numerous financial laws and regulations that must be complied with. Digital technology facilitates banks in implementing and monitoring compliance with these regulations more effectively through automation systems and precise financial process monitoring.

**Fraud Detection:** Digital technology uses artificial intelligence and machine learning systems to monitor suspicious activities and detect fraud. These systems can analyze customer behaviours and transactions to detect unusual patterns and warning signs of fraud. (Al-Hadad, & . Muhammad. 2021).

**Enhancing Security in Electronic Payments:** Digital technology enables banks to provide secure and user-friendly electronic payment systems. Through encryption techniques and advanced security standards, online payment processes can be secured, providing safe payment methods for customers.

Digital technology enhances the level of security and compliance in the banking sector operating in Palestine by providing modern and effective solutions for data protection, fraud prevention, and ensuring compliance with financial laws and regulations. This increases trust between customers and banks and contributes to the sustainability and success of the banking sector.

A study by Yogi & Frinaldi (2020) aimed to investigate the relationship between integrity, information technology, and their impact on employee performance in the Religious Affairs Office in Sungai Penuh City, Indonesia. The study included all employees in the Religious Affairs Office, with 50 respondents. Data were collected through distributing a questionnaire, and its reliability was verified before distribution. Among the key findings: Trust in work and the technology used positively influence employees' performance. Increased trust and integrity in using technology led to improved performance and productivity among employees. (Khan et al., 2017) study aimed to explore the relationship between information technology and employee efficiency in the Civil Secretariat in Peshawar, Pakistan. The study included all employees across various administrative categories, with a sample of 150 employees. Data were collected through a questionnaire prepared for this purpose, using stratified random sampling. Among the significant findings, there was a positive and significant

inverse relationship between technology usage and increased employee efficiency in the Civil Secretariat in Peshawar, Pakistan. (Abdel-Aal, 2022) study aimed to investigate the relationship between information technology usage and its impact on employee performance in tourism companies in Port Said. The descriptive method was adopted, and a questionnaire was distributed to several companies operating in this sector to measure and understand the extent of technology's impact on enhancing employee performance. Among the key findings, there was a positive impact of technology usage on increasing and enhancing performance. Additionally, technology contributes to improving decision-making ability promptly. (Younis, 2019) study aimed to understand the importance and benefits of digital transformation and its impact on banking performance. The researcher conducted a field study on Al Rajhi Bank in Saudi Arabia to assess the influence of digital transformation on improving banking services and customer satisfaction. Among the key findings, there was a positive relationship between sustainable digital technology adoption and the quality of banking services provided to customers. Additionally, it led to increased customer satisfaction, impacting the utilization of online banking websites. The report advocated a complete digital transformation plan across several industries in Saudi Arabia, highlighting the need of increasing staff efficiency in delivering electronic banking services and teaching them on how to use them in order for Saudi banks to attain digital leadership. (Rizk, 2022) study aimed to review the benefits and importance of digital transformation and ways to support investments across various sectors by adopting supportive strategies for innovation and digital transformation. It also aimed to identify obstacles, confront them, and overcome them. Among the significant findings, there was a need to provide adequate infrastructure to successfully implement and develop digital transformation, ensuring its continuity. Additionally, there was a significant inverse relationship between digital transformation and increasing investments in Egypt.

### **III. Methodology**

This part dealt with a complete and detailed description of the study method and the procedures that the researcher took to implement this study and included a description of the study methodology, the study population, the study sample, the study tool, its validity and reliability, and the study. Procedures and statistical analysis.

#### **3.1. Study Approach:**

The researcher employed a descriptive approach, which is a method used in research focusing on the present. It aims to prepare data to substantiate specific hypotheses in order to accurately answer predefined questions related to current phenomena and events that can be collected during the research period using appropriate tools. The purpose of using the descriptive approach is to understand "the role of digital technology in improving the performance of employees in the Palestinian banking sector.

#### **3.2. Study population**

The study population comprises all employees in Palestinian banks, totalling(7200 ).

#### **3.3. The study sample**

The study was conducted on a sample of (350) employees working in Palestinian banks. They were selected using a stratified random method. (320) valid questionnaires were retrieved for statistical processing. Table (1) shows the demographic characteristics of the study sample members.

**Table 1: Demographic Characteristics of the Study Sample**

Variable	Variable Levels	Number	Frequency %
Gender	Male	178	55.6
	Female	142	44.4
	Total	320	100.0
Age	Less than 30 years	90	28.1
	Form30-less than 40	142	44.4
	From40-less than 50	64	20.0
	More than 50 years	24	7.5
	Total	320	100.0
Educational Qualification	Diploma	54	16.9
	BA	232	72.5
	MA and more	34	10.6
	Total	320	100.0
years of service	Less than 5 years	69	21.6
	(5-10) years	149	46.6
	More than 10 years	102	31.9
	Total	320	100.0

**3.4 Study tool**

The researcher developed a questionnaire to measure the role of digital technology in improving the performance of employees in the Palestinian banking sector, after reviewing the managerial literature, digital technology scales, and employee performance in several studies, including those by Haider (2020), Bouhadid (2017), and El Masry (2022). The questionnaire consisted of two sections. The first section comprised personal data, while the second section was divided into two axes.

The first axis addressed the use of digital technology in banks, consisting of 18 items, while the second axis focused on employee performance, comprising 8 items. Respondents were required to select their answers on a five-level Likert scale as follows: strongly agree (5 points), agree (4 points), neutral (3 points), disagree (2 points), and strongly disagree (1 point).

**3.4.1. Scale Validity:**

Content Validity: To verify the content validity of the scale, the scale was presented to four experts working in Palestinian universities who have expertise and experience in the field. This was done to establish the apparent validity of the scale.

**3.4.2. Survey Sample:**

The researcher drew a survey sample from the population, consisting of 50 employees (both male and female) working in Palestinian banks. This was done to verify the validity and reliability of the scale through the following validity and reliability verification procedures:

**3.4.3. Construct Validity:**

The validity of the scale was verified by calculating the Pearson correlation coefficient for each item of the scale with the total score of the axis of digital technology usage, as shown in Table (2).

**Table 2: Results of Pearson Correlation Coefficients for the Correlation Matrix of Each Item of the Axis with the Total Score of Digital Technology Usage Axis.**

Paragraph number	Link to the domain	Paragraph number	Link to the domain	Paragraph number	Link to the domain
1	.672**	7	.683**	13	.738**
2	.659**	8	.664**	14	.740**
3	.701**	9	.679**	15	.682**
4	.689**	10	.696**	16	.674**
5	.707**	11	.629**	17	.651**
6	.686**	12	.624**	18	.738**

\*\* Statistically significant at ( $\alpha \leq 0.01$ )



The data in Table (2) indicates that all correlation coefficients between the items of the axis and the total score of digital technology usage axis are statistically significant. This suggests a correlational relationship between each item and the total score of the axis, indicating their shared contribution to measuring the level of digital technology usage in Palestinian banks.

**Table 3: Results of the Pearson correlation coefficient for the correlation matrix of each item of the employee performance axis with the total score of the axis.**

Item	R	Item	R
1	0.632**	5	0.639**
2	0.627**	6	0.631**
3	0.667**	7	0.671**
4	0.681**	8	0.690**

\*\* Statistically significant at ( $\alpha \leq 0.01$ )

The data presented in Table (3) indicate that all values of the correlation matrix of the axis items with the total score of the axis are statistically significant, which indicates the existence of a statistically significant correlation between the axis items and the total score of the axis, and that they share together in measuring the level of performance of employees in Palestinian banks.

### 3.5 Reliability:

Reliability was calculated by the internal consistency method by calculating the Cronbach Alpha reliability equation, and reliability was calculated by the split-half method, as shown in Table (4).

**Table 4: Reliability coefficients for the scale**

Scale	No. of Items	Cronbach alpha	Split Half	
			Person (R)	Spearman Brown (R)
Uses of digital technology	18	0.807	0.577	0.732
Employee performance	8	0.812	0.582	0.736

It indicates in Table (4) that the value of the Cronbach reliability proposal for the college score for the digital technology use axis was good, as the strength of the Cronbach reliability for the college score was (0.807), and the Cronbach reliability for the college score for the work performance axis was equal to (0.812), which indicates Until the scale emerges well from the evidence, this indicates that the scale is indeed valid and intended for study.

### 3.6 Scale correction:

In order to interpret the results, and to distinguish the role of digital technology in enhancing the effectiveness of the Palestinian popular sector, the brand was transformed according to the level that accommodates everyone from (1-5) and the grades were classified into three levels: grade (2.33 and less), average grade (2.34) - 3.67. ), a high score (3.68 or more).

### 3.7 Statistical processing:

The SPSS program was used to perform the statistical treatments necessary for the current study through the use of the following statistical tests: frequencies, percentages, arithmetic means, and standard deviations. Cronbach alpha test to determine the reliability of the study tools items. Spearman-Brown correlation coefficient to ensure the stability of the study tools items. Pearson correlation coefficient to determine the validity of the study tools' items.

Simple regression test to determine the size of the effect of the independent variable on the dependent variable.

## IV. Results

This part included a statistical analysis of the data resulting from the study, in order to answer the study questions.

### Results of the first study question: What is the level of use of digital technology in Palestinian banks from the perspective of their employees?

To answer the first question, arithmetic means, standard deviations, and relative weights were calculated for the level of use of digital technology in Palestinian banks from the point of view of their employees. As shown in Table (5).

**Table 5: Arithmetic means, standard deviations, and relative weights for the level of use of digital technology in Palestinian banks from the perspective of their employees, ranked in descending order.**

Item No.	Item	Mean	St. Deviation	Relative Weight	Approval
6	The bank uses some ready-made software to perform its work	4.03	0.87	80.6	High
5	Through its organizational culture, the bank reinforces the importance of using smart technology	4.01	0.92	80.2	High
13	The bank uses various means to train on the use of information technology (hardware, equipment, software, communication networks).	4.01	0.88	80.2	High
7	The bank uses high-tech devices to benefit from information and work in the most accurate ways	4.00	0.88	80.0	High
1	Digital technology contributes to improving communication and information exchange	3.99	0.94	79.8	High
15	The use of digital technology reduces the level of errors in work	3.98	0.87	79.6	High
14	Digital technology contributes to reducing the turnover rate	3.98	0.88	79.6	High
9	Digital technology helps increase accuracy in identifying training needs	3.97	0.84	79.4	High
3	The data can be accessed at the appropriate time by bank employees	3.96	0.87	79.2	High
8	Digital technology increases flexibility at work	3.96	0.88	79.2	High
2	The necessary equipment is available to confront emergency crises related to information security	3.95	0.91	79.0	High
18	The software used in the bank helps in performing the tasks	3.95	0.85	79.0	High
16	The use of digital technology helps facilitate the oversight process and increase transparency	3.92	0.92	78.4	High
12	The bank provides sufficient financial resources for training in the use of digital technology	3.92	0.90	78.4	High
10	The bank is interested in training and qualifying employees to enable them to use the latest digital software	3.90	0.87	78.0	High
17	Digital technology helps senior management quickly obtain information about employees	3.87	0.80	77.4	High
4	The available network suits the bank's business needs	3.85	0.95	77.0	High
11	The bank organizes special training courses for the use of smart technology	3.81	0.88	76.2	High
The total degree of the level of use of digital technology in banks		3.95	0.43	79.0	Moderate

The data presented in Table (5) indicate that the level of use of digital technology in Palestinian banks from the point of view of their employees was with a high degree of agreement, as the arithmetic average of the total score for the level of use of digital technology in Palestinian banks was (3.95), with a percentage reaching (79.0%).

It is clear from Table (5) that the paragraphs: “The bank uses some ready-made software to perform its work,” and “The bank, through its organizational culture, enhances the importance of using smart technology,” received the highest degree of approval regarding the level of use of digital technology in Palestinian banks from the point of view of its employees.

While the paragraphs: “The bank organizes special training courses for the use of smart technology,” and “The available network suits the work needs of the bank,” obtained the lowest degrees of approval regarding the level of use of digital technology in Palestinian banks from the point of view of their employees.

**The researcher attributes** the high level of use of digital technology in Palestinian banks from the point of view of their employees to the presence of a high organizational culture among employees in the banking sector. It also indicates the importance and necessity of the presence of digital technology because of its positive effects in improving the quality and quantity of services provided by banks and the necessity of developing all Aspects

that will enhance the effective performance of employees including developing and increasing interest and training of employees and demonstrating the importance of digital technology in this sector. This result is consistent with the study of (Rashwan, .& Qasim, 2020).

**Results of the second study question: What is the level of performance of employees in Palestinian banks from their point of view?**

To answer the second question, arithmetic means, standard deviations, and relative weights were calculated for the level of performance of employees in Palestinian banks from their point of view. This is as shown in Table (6).

**Table 6: Arithmetic means, standard deviations, and relative weights for the level of performance of employees in Palestinian banks from their point of view, arranged in descending order.**

Item No.	Item	Mean	St. Deviation	Relative Weight	Approval
5	Digital technology contributes to enhancing creativity and innovation	4.00	0.87	80.0	High
7	The use of digital technology increases trust between different functional levels	3.97	0.91	79.4	High
6	The use of digital technology increases employee satisfaction.	3.97	0.91	79.4	High
3	The use of digital technology contributes to increasing the speed and effectiveness of decision-making	3.97	0.91	79.4	High
4	Using digital technology helps them save time performing routine tasks	3.96	0.89	79.2	High
2	Digital technology contributes to improving communication and information exchange	3.95	0.92	79.0	High
8	Digital technology contributes to improving work efficiency and productivity	3.92	0.87	78.4	High
1	Digital technology helps increase accuracy and transparency in the performance evaluation process	3.68	1.34	73.6	High
The total degree for the level of performance of employees in Palestinian banks		3.93	0.56	78.6	High

The data presented in Table (6) indicate that the level of performance of employees in Palestinian banks, from their point of view, was great, as the arithmetic average of the total score for the level of performance of employees in Palestinian banks reached (3.93) and a percentage of (78.6%).

It is clear from Table (6) that the paragraphs: “Digital technology contributes to enhancing creativity and innovation,” and “Using digital technology increases the state of trust between various job levels,” obtained the highest degree of approval regarding the level of performance of employees in Palestinian banks from their point of view.

While the paragraphs: “Digital technology helps increase accuracy and transparency in the performance evaluation process,” and “Digital technology contributes to improving business efficiency and productivity,” received the lowest degrees of approval regarding the level of performance of employees in Palestinian banks from their point of view.

The researcher attributes this result to the fact that employees trust that digital technology contributes to enhancing and effective performance and increasing their level of satisfaction. Despite this, some challenges may face the use of digital technology in operations that require bank management to pay more attention to it to enhance creativity and productivity and increase the state of trust. Among employees, this result is consistent with the study of (Anna Omarini, 2018)

**Results of the third study question: Is there a role for using digital technology in improving the performance of employees in Palestinian banks?**

To answer the third question, simple regression analysis was used as shown in Tables (7):

**Table 7: Results of simple regression analysis of the role of using digital technology in improving the performance of employees in Palestinian banks**

IV Variable	B	SE	Beta	t	P Value	F
Constant	0.946	0.235		4.016	0.001*	162.07
Use of technology (X)	0.755	0.059	0.581	12.731	0.001*	0.001*
R=0.581	R <sup>2</sup> =338		Adj. R <sup>2</sup> =336			

\*Statistically significant at ( $\alpha \leq 0.05$ ). Y: Employee performance

From the results presented in Table (7), it is clear that the validity of the model is stable, as the calculated F value reached (162.07) with a probability value of (0.001), which is less than the significance level (0.05), and indicates a high predictive ability.

Table (7) shows that there is a positive, direct relationship between the use of digital technology and the performance of employees in Palestinian banks, as the correlation coefficient between them reached (0.581). It was also shown that the independent variable (use of digital technology) has an impact on (employees' performance), based on the values of The calculated (t) amounted to (12.731), which is greater than the tabulated (t) value (1.96) at the significance level (0.05).

It is also clear from Table (7) that the independent variables (use of digital technology) explained (33.6%) of the change in (employees' performance) (the dependent variable), and this means that (33.6%) of the change in (employees' performance) was It can be interpreted through the following linear relationship:

$$Y = (0.946) + (0.755) X \dots\dots\dots (1)$$

From equation (1), it is clear that an increase in the use of digital technology by one integer amount leads to an improvement in the performance of employees in Palestinian banks by an amount of (0.755).

The researcher attributes this to the fact that although many different factors contribute to increasing the effectiveness of performance, the use of digital technology contributes significantly to increasing the effectiveness and efficiency of workers in Palestinian banks. This can be due to the ability to streamline processes, increase productivity, improve the quality of work, and make faster and better decisions. Therefore, banks should invest in developing and adopting digital technology further to enhance the performance of their employees.

**Results of the fourth question: Are there statistically significant differences at the significance level ( $\alpha \leq 0.05$ ) between the average scores of the study sample members on the study axes (use of digital technology and employee performance) in Palestinian banks according to the variables (gender, age, educational qualification, years of service)?.**

To answer the fourth question, multiple analysis of variance (MANOVA) tests were used to examine the differences in the average scores of the study sample members on the study axes (use of digital technology and employee performance) in Palestinian banks according to the variables (gender, age, educational qualification, years of service), as well as Table (8) indicates:

**Table 8: Results of multiple analysis of variance (MANOVA) for differences in the average scores of the study sample members' axes of the study (use of digital technology and employee performance) in Palestinian banks according to the variables (gender, age, educational qualification, years of service).**

Source	Dependent Variables	Type III Sum of Squares	df	Mean Square	F	Sig.
Gender	Use of digital technology	0.19	1	0.189	1.160	0.282
	Employee performance	0.00	1	0.000	0.000	0.994
Age	Use of digital technology	3.38	3	1.126	6.908	0.001**
	Employee performance	1.28	3	0.427	1.406	0.241
Educational Qualification	Use of digital technology	1.23	2	0.616	3.782	0.024*
	Employee performance	1.69	2	0.844	2.781	0.064
years of service	Use of digital technology	1.41	2	0.705	4.324	0.014*
	Employee performance	0.22	2	0.111	0.365	0.694
Error	Use of digital technology	50.67	311	0.163		
	Employee performance	94.44	311	0.304		
Total	Use of digital technology	5044.88	320			
	Employee performance	5031.05	320			

\*\* Statistically significant at the significance level (0.01) / \* Statistically significant at the significance level (0.05)

It is clear from the results presented in Table (8) that:

**First:** Differences in the scores of the study sample members on the study axes (use of digital technology and employee performance) in Palestinian banks according to the gender variable.

The results showed that there were no statistically significant differences in the scores of the study sample members regarding the use of digital technology in Palestinian banks from the point of view of employees according to the gender variable, as the calculated statistical significance value was (0.282), which is greater than (0.05) and not statistically significant.

The results showed that there were no statistically significant differences in the scores of the study sample members regarding the performance of employees in Palestinian banks according to the gender variable, as the calculated statistical significance reached (0.994), which is greater than (0.05) and not statistically significant.

The researcher attributes this to the fact that the use of digital technology and the effectiveness of the performance of workers in this sector are not affected by the gender variable, but rather that training, experience, corporate culture, motivation, leadership, and other things contribute to strengthening the positive relationship between the performance of workers and digital technology in the banking sector. This result is consistent with the study of (Barasa, 2020).

**Second:** Differences in the scores of the study sample members on the study axes (use of digital technology and employee performance) in Palestinian banks according to the age variable.

The results showed that there were statistically significant differences in the scores of the study sample members regarding the use of digital technology in Palestinian banks from the point of view of employees according to the age variable, where the calculated statistical significance reached (0.001), which is smaller than (0.05) and statistically significant.

To find the source of the differences, the Scheffe test was used for two-dimensional comparisons of the differences in the scores of the study sample members on the use of digital technology in Palestinian banks from the employees' point of view according to the age variable, as is clear from Table (9).

**Table 9: Scheffe test results for two-dimensional comparisons of the differences in the means of the study sample members regarding the use of digital technology in Palestinian banks from the employees' point of view according to the age variable**

Variable	Comparisons	Mean	Form30-less than 40	From40-less than 50	More than 50 years
Use of digital technology	Less than 30 years	3.93	0.04	0.11	0.35*
	Form30-less than 40	3.97	-----	0.15*	0.39*
	From40-less than 50	3.82	-----	-----	0.24*
	More than 50 years	3.58	-----	-----	-----

\*The difference in means is statistically significant at the level (0.05)

It is clear from Table (9) that the differences in the scores of the study sample members regarding the use of digital technology in Palestinian banks from the employees' point of view according to the age variable were between those who were (less than 50 years old) on the one hand and those who were (more than 50 years old) on the other hand. Others were in favour of those aged (under 50 years) whose use of digital technology was higher.

**The researcher attributes** this result to the recent use of digital technology. This gives younger age groups a more flexible ability to use this technology because they arose in the era of the use of digital technology and are accustomed to using it on an almost daily basis in various fields. Therefore, decision-makers must rely on flexible strategies that meet the needs of Different age groups.

The results showed that there were no statistically significant differences in the scores of the study sample members regarding the performance of employees in Palestinian banks from the employees' point of view according to the age variable, as the calculated statistical significance value was (0.241), which is greater than (0.05) and not statistically significant.

**Third:** Differences in the scores of the study sample members on the study axes (use of digital technology and employee performance) in Palestinian banks according to the academic qualification variable.

The results showed that there were statistically significant differences in the scores of the study sample members regarding the use of digital technology in Palestinian banks from the point of view of employees according to the academic qualification variable, where the calculated statistical significance reached (0.024), which is smaller than (0.05) and statistically significant.

To find the source of the differences, the Scheffe test was used for two-dimensional comparisons of the differences in the scores of the study sample members on the use of digital technology in Palestinian banks from the point of view of the employees according to the academic qualification variable, as is clear from Table (10).

**Table 10: Scheffe test results for two-dimensional comparisons of the differences in the means of the study sample members regarding the use of digital technology in Palestinian banks from the employees' point of view according to the educational qualification variable**

Variable	Comparisons	Mean	BA	MA and more
Use of digital technology	Diploma	3.79	0.13*	0.03
	BA	3.92	-----	0.16*
	MA and more	3.76	-----	-----

\*The difference in means is statistically significant at the level (0.05)

It is clear from Table (10) that the differences in the scores of the study sample members regarding the use of digital technology in Palestinian banks from the point of view of employees according to the academic qualification variable were between those whose academic qualifications are (diploma) and (master's and above) on the one hand, and those whose academic qualifications are (bachelor's) On the other hand, in favour of those with an educational qualification (Bachelor's degree) whose use of digital technology was higher.

**The researcher attributes** this result to the fact that holders of a bachelor's degree represent 72.5% of the total number of workers in this sector, and this percentage indicates that their level of influence and interest in digital technology must be the greatest despite the degree of convergence between the backward levels of education.

The results showed that there were no statistically significant differences in the scores of the study sample members regarding the performance of employees in Palestinian banks from the employees' point of view according to the academic qualification variable, as the calculated statistical significance value was (0.064), which is greater than (0.05) and not statistically significant.

**Fourth:** Differences in the scores of the study sample members on the study axes (use of digital technology and employee performance) in Palestinian banks according to the variable number of years of service.

- The results showed that there were statistically significant differences in the scores of the study sample members on the use of digital technology in Palestinian banks from the employees' point of view according to the variable number of years of service, where the calculated statistical significance reached (0.014), which is smaller than (0.05) and statistically significant.

To find the source of the differences, the Scheffe test was used for two-dimensional comparisons of the differences in the scores of the study sample members on the use of digital technology in Palestinian banks from the point of view of the employees according to the variable number of years of service, as is clear from Table (11).

**Table 11: Scheffe test results for two-dimensional comparisons of the differences in the means of the study sample members on the use of digital technology in Palestinian banks from the employees' point of view according to the variable number of years of service**

Variable	Comparisons	Mean	(5-10) years	More than 10 years
Use of digital technology	Less than 5 years	3.84	0.10	0.05
	(5-10) years	3.74	-----	0.15*
	More than 10 years	3.89	-----	-----

\*The difference in means is statistically significant at the level (0.05)

It is clear from Table (11) that the differences in the scores of the study sample members regarding the use of digital technology in Palestinian banks from the employees' point of view according to the variable number of years of service were between those whose number of years of service was (5-10 years) on the one hand and those whose number of years of service was ( More than 10 years) On the other hand, in favour of those whose number of years of service (more than 10 years) and whose use of digital technology was higher.

**The researcher attributes** this result to the fact that practical experience has a positive effect on increasing the effectiveness of performance. If this experience is combined with the adoption of policies for using digital technology, this will contribute to increasing the effectiveness of using digital technology and its positive effects on increasing performance. This result is consistent with the study by (Abdel-Al, Mona, 2022).

The results showed that there were no statistically significant differences in the scores of the study sample members regarding the performance of employees in Palestinian banks from the employees' point of view according to the variable number of years of service, as the calculated statistical significance value was (0.694), which is greater than (0.05) and not statistically significant.

### **Recommendations:**

Based on the results of the study, the researcher recommends the following:

- 1- Working to enhance the use of digital technology in Palestinian banks by enhancing organizational culture.
- 2- Adopting strategies for continuous training and development to maintain the effectiveness of employee performance.
- 3- Developing the infrastructure for digital technology to keep pace with all developments and meet challenges.
- 4- The researcher recommends conducting future studies on the use of digital technology in the banking sector and its relationship with other variables.

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