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Factors Affecting Electronic Payment from the Point of View of Customers in Jordanian Commercial Banks

العوامل المؤثرة على الدفع الإلكتروني من وجهة نظر العملاء في البنوك التجارية الأردنية

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Abstract:

Objectives: This study aimed to identify the factors affecting electronic payment in Jordanian commercial banks from the point of view of customers.

Methods: To achieve the goal of the study, the study followed the descriptive approach, and a questionnaire was developed and distributed to a sample of (233) customers in Jordanian commercial banks, and after conducting statistical analysis from During the (SPSS) program and using the multiple regression equation.

Results: The results showed that means of protection and security are among the most influential factors on electronic payment from the customers' point of view, followed by awareness and culture in second place, and finally in third place were human resources.

Conclusion: In light of the results, the study provided a set of recommendations, most notably: the need to focus on facilitating work procedures and reducing the time taken to provide services to clients by motivating employees and granting them the necessary empowerment to perform their tasks with quality. Additionally, it emphasized the importance of directing all bank employees to ensure that they treat clients with respect.

Keywords: *electronic payment; Jordanian commercial banks; customers; protection and security, awareness and culture; human resources.*

الملخص:

الأهداف: هدفت هذه الدراسة إلى التعرف على العوامل المؤثرة على الدفع الإلكتروني في البنوك التجارية الأردنية من وجهة نظر العملاء.

المنهجية: لتحقيق هدف الدراسة اتبعت الدراسة المنهج الوصفي، وتم تطوير استبانة وتوزيعها على عينة مكونة من (233) عميل في البنوك التجارية الأردنية، وبعد إجراء التحليل الإحصائي من خلال برنامج (SPSS) وباستخدام معادلة الانحدار المتعدد.

النتائج: أظهرت النتائج وسائل الحماية والأمان من أكثر العوامل تأثيرًا على الدفع الالكتروني من وجهة نظر العملاء، تلاه الوعي والثقافة بالمرتبة الثانية، وأخيرًا جاء بالمرتبة الثالثة الكوادر البشرية.

الخلاصة: في ضوء النتائج، قدمت الدراسة مجموعة من التوصيات، أبرزها: ضرورة التركيز على تسهيل إجراءات العمل وتقليل الوقت المستغرق لتقديم الخدمات للعملاء من خلال تحفيز الموظفين ومنحهم التمكين اللازم لأداء مهامهم بجودة. بالإضافة إلى ذلك، أكدت الدراسة على أهمية توجيه جميع موظفي البنوك لضمان معاملة العملاء باحترام.

الكلمات المفتاحية: *الدفع الالكتروني؛ البنوك التجارية الأردنية؛ العملاء؛ الحماية والأمان؛ الوعي والثقافة؛الكوادر البشرية.*

1 Introduction

The advancements observed globally in the realm of economics have led to a resurgence in economic activities and a progression in information and communication technology, positioning it as a more pivotal asset in comparison to traditional resources. Moreover, the focus on this domain has become the primary preoccupation of any organization, given its significance as a cornerstone of competitiveness in an age characterized by information technology.

The past ten years have seen a surge in technological advancements across various sectors such as information technology and industrial technology. These advancements have played a crucial role in the development of sophisticated digital financial services utilizing platforms like Baas. Baas refers to customer service platforms enabling the operation and administration of applications without the necessity of constructing and upholding the application infrastructure. Financial technology firms like Treezor and Solaris Bank, headquartered in Berlin, offer banking services through a service platform leveraging their banking licenses. The progression has reached a stage where we now encounter digital currencies, known as Crypto Currencies, utilizing Blockchain technology on mobile devices as the foundation for accessing financial services (Alajlouni and Ac-hakim, 2018).

Payment methods are the methods used to pay for goods and services. These methods evolved over time in response to economic changes, market conditions, and technological advancements. They started with the barter system, and then commodity money like gold and silver emerged. Then paper money became popular, and its value stemmed from governments' obligation to use it. Then plastic cards appeared, replacing paper money, and they quickly spread due to the benefits they provide, whether for the cardholder, the banks that issue them, or the merchants who accept them (Shaheen, 2013).

1.1 Study Problem

Commercial banks face challenges that may limit their success in providing electronic services in a business environment where changes and transformations are accelerating and competition is increasing. Customers' interaction with the bank electronically has become an urgent requirement; as the degree of customer satisfaction with their electronic interaction with the bank's services affects their loyalty to the bank and makes them promote it more. Therefore, banks adopt modern methods in providing services to increase their interaction with customers. Fintech has proven its importance in overcoming the obstacles and difficulties faced by the banking sector; electronic payment is affected by a number of factors, most notably employee resistance to change, poor coordination in banks, lack of accountability, technical issues related to management and knowledge of technology, and the inability of employees to deal with electronic payment. In the e-business environment, it is possible to hack the organization's information system and access beneficiary information through hidden software and exploit system loopholes, in addition to customers' lack of knowledge and awareness of dealing with electronic payment.

From this perspective, we can define the study problem as **the following main question**: **What factors influence electronic payment from the perspective of customers in Jordanian commercial banks?** The following sub-questions stem from it:

- **The first sub-question**: How do protection and security methods affect electronic payments from the perspective of customers in Jordanian commercial banks?
- **The second sub-question**: How do awareness and culture affect electronic payment among Jordanian commercial bank customers?
- **The third sub-question**: Do human cadres affect electronic payment from the point of view of customers in Jordanian commercial banks?

1.2 Significance of the Study

The significance of this study is divided into two parts, practical and theoretical, explained as follows:

1.2.1 Practical Significance

- The first is demonstrating the importance of enhancing technological readiness and increasing attention to financial technology in commercial banks, especially in light of the growing need for financial technology due to the increased focus on digital transformation.

- The second is providing the study's results to give a clear vision to decision-makers in commercial banks to identify strengths and weaknesses related to financial technology, and highlighting the key procedures and developmental mechanisms used by banks to enhance financial technology.
- The third is offering potential recommendations based on the extracted results, which could benefit the commercial banks under study, other organizations, and future research.

1.2.2 Theoretical Significance

The theoretical significance of this study lies in providing a modern and specialized framework that could enrich the Arabic library through access to peer-reviewed scientific research, books, master's theses, and websites related to factors affecting electronic payment.

1.3 Applied Importance

The practical application importance resides in:

- Explaining the significance of increasing technological readiness and fostering interest in financial technology in commercial banks, particularly in light of the growing need for financial technology and interest in digital transformation.
- The study's findings should provide a clear vision for commercial bank officials in terms of identifying financial technology strengths and weaknesses, as well as indicating the most important development procedures and mechanisms used by banks in the development of financial technology.
- The possibility of making some recommendations based on the extracted results, which can be used in the commercial banks that are the subject of the study, as well as other organizations, as well as in future research.

1.4 Study Model

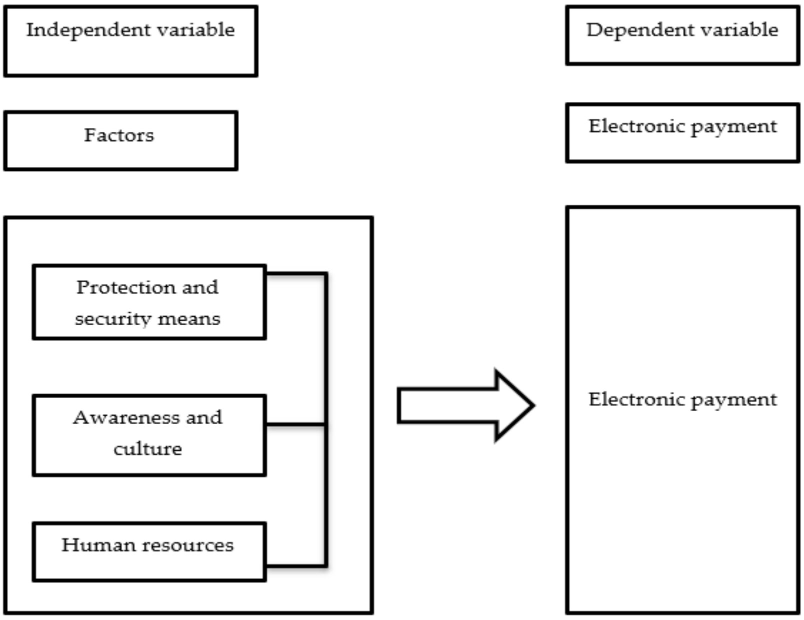

Figure 1: Study design model

1.5 Study Hypotheses

To answer the study questions and achieve the objectives, the following hypotheses were developed:
The main hypothesis is that the factors (security and protection methods, awareness and culture, and human cadres) combined do not have a statistically significant effect on electronic payment in Jordanian commercial banks ($\alpha \leq 0.05$). The following hypotheses emerge from it:

- **The first sub-hypothesis** suggests that security and protection methods have no significant effect on electronic payment in Jordanian commercial banks ($\alpha \leq 0.05$).

- **The second sub-hypothesis** suggests that awareness and culture have no significant effect on electronic payment in Jordanian commercial banks ($\alpha \leq 0.05$).
- **The third sub-hypothesis** states that human cadres have no statistically significant effect on electronic payment in Jordanian commercial banks ($\alpha \leq 0.05$).

1.6 Study Limitations and Boundaries

The study limits are as follows:

- **Spatial boundaries:** This study applies to Jordanian commercial banks.
- **Scientific (objective) boundaries:** This study examines the factors that influence electronic payments.
- **Time limits:** This study was carried out in the year 2024.

1.7 Study Terminology

For the purposes of this study, the operational definitions of all study variables will be as follows:

- **Electronic Payment:** refers to the process where the taxpayer fulfills their financial obligations to the Income and Sales Tax Department using the electronic payment system on the website and pays the due taxes owed (Al-Ba'aj, 2013).
- **Security and protection methods:** the electronic payment application has technical protection that includes dependable mechanisms and provides effective legal guarantees related to reliability and stability against leakage or falsification of data related to account creation and national number (Fannoush, 2022).
- **Awareness and Culture:** is the level of individuals' interest in relying on electronic payment systems as a fundamental basis for assessing companies, individual clients, and suppliers of these companies and units.
- **Human resources:** developing human resource capacities and qualifications in accordance with electronic payment mechanisms.

2 Theoretical Framework

Electronic payment is the method by which economic value is transferred between the seller and the buyer, and it has numerous advantages over traditional payment, including speed, lower cost, and continuous development. It is the most effective way to shop online (Okeke, 2015).

Al-Naimi (2016) identified several factors that influence electronic payments, including security, ease of use, trust, regulatory issues, and added services. The risks of electronic payment increase for the consumer because there is no face-to-face contact between the seller and the buyer, as well as no hand-to-hand payment at different times and locations.

An electronic payment system is one that enables customers to pay money to merchants or suppliers of goods electronically. A payment gateway is a channel that connects customers and payment processors to ensure the confidential transfer of information. It is important to note that when using an electronic payment system, various tools and systems must be used to protect the customer's payment information, such as debit or credit card information. However, the payment gateway's confidentiality does not fully protect the customer's or consumer's information (Qaoud 2016).

Khair (2017) defines electronic payment as an integrated system of systems and programs offered by the state's e-government with the goal of facilitating secure electronic payment operations. This system operates under a set of rules and laws that ensure the confidentiality of purchase procedures and service access. The electronic payment feature accepts major credit cards as well as electronic cash, ATM cards, and direct debit from the account. In light of the foregoing, the study's problem is to determine the role played by Jordanian banks in developing and advancing e-commerce, as well as the extent to which electronic banking components work in Jordanian banks to enable them to play their desired role in improving the electronic payment system. As a result, this study poses the research problem as the following main question: What factors influence electronic payment from the perspective of customers in Jordanian commercial banks?

2.1 Types and Methods of Electronic Banking Payment Systems

Electronic banking payment systems are a collection of electronic tools and transfers issued by banks and other financial institutions as a means of payment. They include bank cards, electronic money, electronic checks, smart cards, and other types of electronic payment cards that make it easier to pay the value of a commercial transaction. The following are some of the means (Al-Shaheen, 2013).

2.1.1 Loyalty and credit cards

Loyalty and credit cards are the most common electronic payment methods that eliminate the need to carry and handle cash. These cards are issued by an institution or bank for the benefit of its customers. They allow customers to transact and purchase their needs without using cash. It is sufficient to present this card, which is accepted in these stores, and sign receipts or invoices for the value of the purchased goods. These cards allow their holders to make withdrawals from ATMs. They also allow for financial transactions to be conducted via the Internet, followed by payment of the resulting financial obligations.

2.1.2 ATM

These are machines that can be installed in various locations and are linked to the bank's computer network. Individuals rely on these devices on a daily basis to conduct modern banking transactions. The ATM can be used in many traditional and non-traditional banking operations such as withdrawal, cash deposit, balance inquiry, obtaining a short account statement, transferring money between accounts for the same person or another beneficiary, making transfers, paying loan installments, paying telephone and electricity bills, paying purchase bills, depositing checks in the account and requesting a chequebook, giving specific instructions to the bank, knowing interest rates.

2.1.3 Electronic points of sale

These are machines that are commonly used in a variety of commercial and service establishments. Customers can use plastic cards or smart cards to make payments by debiting their accounts electronically and swiping the card inside machines that are electronically linked to their bank accounts. They offer a variety of financial services for automatic payment in commercial stores, including cheque guarantees, payment, and direct recording via electronic transfer from the buyer's account to the merchant's account using the merchant's device.

2.1.4 Home or office banks

It is a personal account located at home, work, or anywhere that is linked to a bank account and allows you to complete banking transactions using a password, secret number, or both. According to it, the customer obtains banking services while at home or at work via a personal computer that is linked to the bank computer. The customer obtains information from the database via the information screen and sends instructions to the bank computer to view his accounts or transfer funds from one account to another (Shaheen 2013).

2.1.5 Mobile or telephone banks

These are banking services that are accessible via a mobile phone or telephone using a secret number, relying on the Internet network linked to the bank's branches to facilitate the management of customers' banking transactions and thus avoid waiting lines for customers to enquire about their accounts or obtain other services by entering their secret number. This service operates 24 hours a day, including official holidays and vacations. Phone or mobile banking services include transferring funds from the customer's bank account to pay some of his obligations, such as the telephone bill or the mobile electricity bill, as well as the financial transfer service from the customer's account to pay bills, contracting to obtain a loan or opening documentary credits, and so on (Al-Taie 2010).

2.2 Previous Studies

This section presents previous studies on the subject of the study that the researcher was able to find after reviewing numerous scientific and cognitive websites. They have been presented in the chronological order from oldest to newest as follows:

- **The study (Nguyen & Kim-Duc, & Freiburghaus, 2021)** sought to investigate customer experience (CE) and its relationship with mediating variables in order to assess the impact of digital banking (DB) on bank financial performance (FP) prior to Covid-19 and during the Vietnamese lockdown. To achieve the study's objectives, research data were gathered from a survey of Vietnamese customers. The survey was emailed to 238 and 218 customers from 20 Vietnamese commercial banks in Q4 2018 and Q2 2020, respectively. FP is calculated using the banks' quarterly financial statements prior to Covid-19 and during the lockdown. The findings revealed that CE and DB had a significant and positive impact on FP via customer satisfaction prior to Covid-19, while the other two mediating variables (word of mouth [WoM] and trust) had no significant effect. During the lockdown, only WoM improved FP. These findings indicate that prior to Covid-19, when customers could easily interact with their bank via multiple touchpoints, customer satisfaction with DB services resulted in higher FP for the bank. However, during the lockdown, DB became the primary point of contact for the customer, while WoM mediated the CE-FP relationship.
- **Al-Qatawneh's (2018)** study sought to identify the criminal protections established by Jordan's criminal legislator for electronic payment cards. The study employed the descriptive, analytical, and comparative legal approaches. The crimes committed with electronic payment cards have been identified, both by the cardholder and by others. In addition to the foregoing, the legal and criminal protections afforded to electronic payment cards were identified. Following the statistical analysis, the study concluded that Jordan's criminal legislation did not provide adequate protection for electronic payment cards.
- **The study (Hashim, Hamid, & Rashid, 2018)** sought to identify the factors that influence tax agents' job performance when preparing taxes using an electronic filing system. Tax employees play an important role in ensuring taxpayer compliance, and they rely heavily on the electronic filing system to perform their duties because they use it frequently. Despite the advantages of using an electronic filing system, the study discovered that there are some drawbacks that are considered an impediment to tax employees and job performance, including functions, information quality, and infrastructure issues. This study proposed a framework that combines the theories of information system success and planned behaviour. This framework is useful for identifying areas for improvement in the electronic filing system, which leads to improved job performance among tax agents.
- **The study of Jaafar (2017)** sought to identify and evaluate the factors influencing Jordanian commercial bank customers' intention to use (Fawateercom). The second goal is to propose a model that can accurately predict how customers will use (Fawateercom). The study population consisted of Jordanian commercial bank customers, with a suitable sample size of 392 individuals tested. After gathering the data, a series of statistical analyses were performed to explain the results of a working model for future research. The study found that performance expectations, expected effort, social influence, facilitating conditions, trust, and perceived security are key indicators of behavioural intentions to use Fawateercom. This study also found that age and gender have no effect on the above-mentioned elements' behavioural intention.
- **Abbas's (2016)** study sought to determine the impact of the electronic payment system on the performance of Sudan's Electricity Distribution Company. The descriptive and historical approach was used in the research to collect data and information from secondary sources such as all paper documents and the Internet, as well as primary sources such as the interview, governorate and questionnaire. The research then used an analytical and inductive approach to analyse the data and reach its conclusions. The study found a statistically significant relationship between the electronic payment system and the level of performance. There is also a statistically significant link between electronic payment systems and improved performance. There is also a statistically significant link between the electronic payment system and operational efficiency. There is a statistically significant link between the electronic payment system and performance effectiveness.
- **Thalji (2015)** investigated the relationship between electronic payment methods and e-commerce management indicators. Banknotes are no longer useful, so we must consider modern methods that are compatible with the tremendous growth in the use of e-commerce by identifying the following issues: Identifying the effectiveness of electronic payment methods in developing e-commerce management indicators in Saudi organisations, as well as analysing the effectiveness of Saudi e-commerce

development. The study used a descriptive analytical approach, with logical analysis serving as the theoretical foundation and statistical analysis and inference as the applied foundation. The researcher's study, based on the study hypotheses, revealed a significant relationship between electronic payment methods, the development of e-commerce indicators, and the satisfaction of beneficiaries of these services. There is also a statistically significant link between electronic payments and the evolution of trade indicators.

- **The study (Rouibah, 2015)** sought to assess the level of current use, intention to adopt, and obstacles to existing electronic payment systems. Data were collected from (350) Kuwaiti consumers who use thirteen different types of electronic payment systems. The findings revealed that debit cards and credit cards are the most commonly used systems for delivery.
- **The study (Harris, 2015)** sought to identify companies' perceptions of electronic payment systems in Malaysia. This study investigates the amount of expectations that (122) Malaysian companies have for electronic payment systems, as well as the extent to which banks meet these expectations, thereby facilitating the growth of e-commerce in Malaysia. The results showed that there was a high level of use of electronic checks, smart cards, and electronic cash, but the performance of banks' services was satisfactory. The study's findings also show that the most important factor affecting businesses is payment system flexibility, followed by functional efficiency, data management, privacy, and EPS security.

What distinguishes the current study from previous studies?

The current study stands out from previous research in that it addresses the factors influencing electronic payment from the perspective of customers in Jordanian commercial banks. Additionally, the current study is unique -to the best of the researcher's knowledge- as it examines the factors influencing electronic payment through a set of sub-dimensions (security and protection measures, awareness and culture, human resources, and electronic payment) whereas previous studies have explored different dimensions.

3 Study Methodology

The study used a descriptive analytical approach, which involves collecting data, summarising it, organising it, and clearly presenting it in the form of tables and graphs, as well as calculating various statistical measures.

3.1 Nature and Type of Study

This is a descriptive analytical study that seeks to determine the impact of the independent variable, which are the influencing factors represented by (protection and safety measures, awareness and culture, and human cadres), on the dependent variable, electronic payment. This study was conducted using a descriptive analytical approach, in which the researcher gathered information from administrative literature on the topic of influencing factors and electronic payment, as well as previous studies on the subject. The researcher used the analytical approach to collect data from primary sources by creating a questionnaire that served the study's objectives and distributed it to members of the study sample.

3.2 Study Community and Sample

The study population consisted of all the employees in the accounting and information systems departments of Jordanian commercial banks in the northern region, totaling approximately 600 employees. The study tool was distributed according to the table (Sekaran and Bougie, 2016) to determine the sample size indicated, and the sample of the study comprised 233 employees in the Jordanian commercial banks.

3.3 Study Tool

After reviewing the theoretical literature and previous studies, the researcher designed and constructed the study tool (questionnaire). The questionnaire was designed to meet the goals of the current study. The study tool (questionnaire) was divided into the following sections:

- **The first section:** The independent variable (factors), which consists of twelve paragraphs divided into three sub-dimensions: security and protection methods, awareness and culture, and human cadres.
- **The second section** contains eight paragraphs and is about the dependent variable (electronic payment).

The study used the Likert scale shown in Figure (2), with five points representing a wide range. There is strong agreement on one end of the scale, strong disagreement on the other, and intermediate points in between. Each point on the scale has a score, and the response with the lowest degree of agreement is given a score of (1), the response with the most agreement is given a score of (5), and so on (Kothari, 2013).

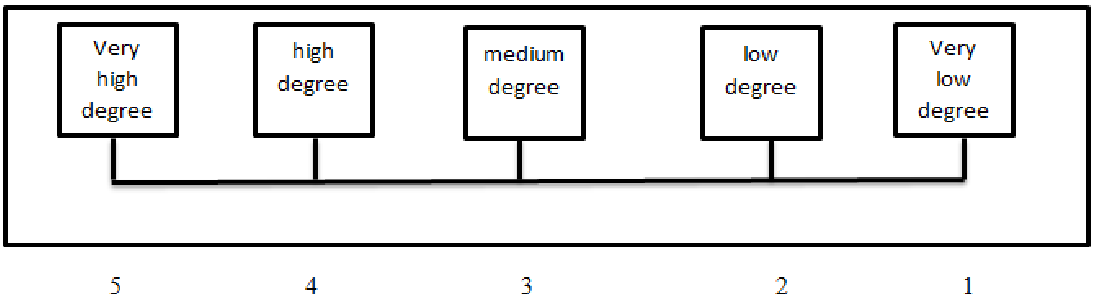

Figure 2: Five-point Likert scale

The Likert scale was processed using the following equation (Subedi, 2016):

Class length = (Upper alternative - Lower alternative) / Number of levels = (5-1)/3 = 1.33.

Thus, arithmetic averages can be divided as follows:

- **First category**: If the arithmetic averages fall between 1 and less than 2.33, the evaluation level is low. (Category length plus lowest weight = 1 + 1.33 = 2.33).
- **Second category**: If the arithmetic averages fall between 2.33 and 3.66, the evaluation level is considered average. (2.33 + 1.33 = 3.66).
- **Third category**: Arithmetic averages ranging from 3.66 to 5.00 indicate a high evaluation level. (3.66+1.33=5.00).

3.4 Collinearity Test

The Variance Inflation Factor and Tolerance values were used to eliminate multicollinearity, which occurs when one independent variable is a function of another, increasing when it increases and decreasing when it decreases. The results are presented in Table 1.

Table 1: Results of the linear correlation test between the study variables

Variable	Allowable variance	Variance inflation factor
Security and protection means	0.343	2.919
Awareness and culture	0.261	3.831
Human resources	0.303	3.303
Electronic payment	0.244	4.092

Table 1 shows that the study model is free of double linearity between the independent and dependent variables. The variance inflation coefficient was less than (5), and the permissible variance met the acceptance criterion of greater than 0.1 (Hair et al., 2011).

3.5 Study Tool Stability

Cronbach's Alpha was used to assess the internal consistency of the questionnaire items as a whole, as it is the most commonly used measure among researchers for this purpose. Cronbach's Alpha for the electronic payment field as a whole reached (0.899), and for the factors field, it reached (0.933), both of which are good ratios because they are greater than (0.70) (Gliem and Gliem, 2003).

3.6 Statistical Data Processing Techniques

The study employed a set of methods to answer its questions and test its hypotheses, relying on the Statistical Package for the Social Sciences (SPSS V25) programming for descriptive and inferential analysis, as well as hypothesis testing by extracting arithmetic means, standard deviations, frequencies, percentages, and multiple regression equations.

4 Display Results Related to Study Areas

4.1 Displaying the results according to the dimensions of the field of factors affecting electronic payment

The arithmetic means and standard deviations of the study sample members' responses to the paragraphs of each factor affecting electronic payment were calculated separately. Table 2 illustrates this.

Table 2: Arithmetic means and standard deviations of sample members' responses to the paragraphs after "Means of Protection and Safety" are organised descending by arithmetic mean.

Rank	Number	Paragraph	Arithmetic average	standard deviation	Evaluation score
1	1	The customer feels safe when using the electronic payment service provided by the bank.	4.80	0.53	High
2	3	The customer trusts that the bank guarantees the confidentiality of electronic transactions.	4.54	0.61	High
3	4	The customer trusts that the electronic payment service provided by the bank does not carry financial risks.	4.22	0.74	High
4	2	The customer trusts that the bank guarantees that his information will be kept completely confidential.	3.24	1.24	Medium
After "safety and protection means" as a whole			**4.20**	**0.56**	**High**

Table 2 shows that the arithmetic averages of the sample members' responses to the paragraphs of the dimension "Means of protection and security when using the electronic payment service provided to me by the bank" had a high evaluation level. While the lowest was for paragraph (2) "The customer trusts that the bank guarantees to keep his private information completely confidential" with a medium evaluation degree, the arithmetic average for the dimension as a whole was (4.20) with a high rating.

Table 3: Arithmetic means and standard deviations of sample members' responses to paragraphs following "Awareness and Culture" arranged in descending order based on the arithmetic mean.

Rank	Number	Paragraph	Arithmetic average	standard deviation	Evaluation score
1	4	It is easy to change the customer culture to accept modern technology to enhance payment systems and e-commerce operations.	4.30	0.51	High
2	3	There is a readiness among the bank's customers to keep pace with the change taking place in electronic banking and the advanced technological revolution.	4.24	0.80	High
3	2	The bank's customers have sufficient skills to deal with the latest technological developments in banking operations.	3.78	0.79	High
4	1	The customer understands that the bank has set the necessary controls within the framework of the electronic services and products it provides for the purpose of facilitating its business and meeting its requirements and needs.	3.54	0.89	Medium
After "awareness and culture" as a whole			**4.20**	**0.56**	**High**

Table 3 shows that the arithmetic averages of the sample members' responses to the paragraphs of the "Awareness and Culture" dimension ranged between (3.54-4.30), with the highest being paragraph (4) "It is easy to change the culture of customers to accept modern technology to enhance payment systems and e-commerce operations" with a high evaluation score. While paragraph (1) "The customer realises that the bank's setting of the necessary controls within the framework of the electronic services and products it provides is for the purpose of facilitating his work and meeting his requirements" had the lowest evaluation score, the arithmetic average for the dimension as a whole was (3.97) with a high evaluation score.

Table 4: Arithmetic means and standard deviations of sample members' responses to paragraphs following "Human Resources" arranged in descending order based on the arithmetic mean.

Rank	Number	Paragraph	Arithmetic average	standard deviation	Evaluation score
1	3	A training plan is available that covers the aspects that human cadres require to handle electronic banking and commerce operations.	4.24	0.87	High
2	1	The bank's management is working to improve human efficiency in keeping up with advanced technological devices.	4.20	0.70	High
3	4	The accumulated experience of bankers and technicians in the field of electronic banking is used, and participants are involved in unifying training and its objectives.	4.04	0.92	High
4	2	Human cadres at various levels receive ongoing training in the field of IT culture.	3.96	0.70	High
After "human cadres" as a whole			**0. 4.11**	**0.64**	**High**

Table 4 displays that the arithmetic averages of the sample members' responses to the paragraphs of the "Human Resources" dimension ranged between (3.96-4.24), with a high evaluation score for all paragraphs, the highest of which was for paragraph (3). "There is a training plan that covers the aspects that human resources need to deal with electronic banking operations and electronic commerce operations" while the lowest was for paragraph (2) "Human resources are trained at different levels on an ongoing basis in the field of information technology culture." The arithmetic average for the dimension as a whole was 4.11, with a high evaluation score.

4.2 Displaying results according to the field of electronic payment

The arithmetic means and standard deviations of the study sample members' answers to the electronic payment field paragraphs were extracted. Table 5 illustrates this.

Table 5: Arithmetic means and standard deviations of sample members' answers to the "electronic payment" field items, arranged in descending order according to the arithmetic mean.

Rank	Number	Paragraph	Arithmetic average	standard deviation	Evaluation score
1	1	The electronic payment service provided by the bank contributed to shortening the waiting period.	4.52	0.65	High
2	5	The bank provides electronic payment service in an easy and understandable language for the customer.	4.48	0.81	High
3	8	The company's website has a variety of services and is easy to use.	4.36	0.66	High
4	6	The bank provides brochures for performing the electronic payment process.	4.30	0.76	High
5	4	Using the electronic payment service allows customers to carry out transactions permanently via the Internet.	4.20	0.93	High
6	7	The customer feels easy to make online payment	4.10	0.84	High
7	2	That the company's official working hours are convenient for the customer.	3.56	1.21	Medium
8	3	Employees have sufficient knowledge to answer customers' questions about electronic payment methods.	3.26	0.83	Medium
The field of "electronic payment" as a whole			**4.10**	**0.53**	**High**

Table No. (5) shows that the arithmetic averages of the sample members' answers to the paragraphs in the field of "electronic payment" ranged between (3.26-4.52), the highest of which was for paragraph (1) "The electronic payment service provided by the bank contributed to shortening the waiting period." with a high evaluation score, while paragraph (3) "The availability of sufficient knowledge among employees to answer customers' questions about the electronic payment method" received a medium evaluation score, and the arithmetic average for the dimension as a whole was (4.10) with a high evaluation score.

4.3 Results related to the hypotheses

The main hypothesis is that the factors (security and protection methods, awareness and culture, and human cadres) combined do not have a statistically significant effect on electronic payment in Jordanian commercial banks ($\alpha \leq 0.05$). The following hypotheses emerge from it:

- **The first sub-hypothesis** suggests that security and protection methods have no significant effect on electronic payment in Jordanian commercial banks ($\alpha \leq 0.05$).
- **The second sub-hypothesis** suggests that awareness and culture have no significant effect on electronic payment in Jordanian commercial banks ($\alpha \leq 0.05$).
- **The third sub-hypothesis**: There is no statistically significant effect at the significance level ($\alpha \leq 0.05$) of human cadres on electronic payment in Jordanian commercial banks.

To test the validity of this hypothesis, the multiple regression equation was used to investigate the impact of the dimensions of the factors on electronic payment from the perspective of commercial bank customers. Table 6 demonstrates this.

Table 6: Results of applying the multiple regression equation to study the impact of the dimensions of factors (security and protection means, awareness and culture, human cadres) on electronic payment in Jordanian commercial banks.

Dimension	β	T	Statistical significance	R	R2	F	Statistical significance
Protection and security means	0.78	4.28	0.00	0.70	0.49	14.97	0.00
Awareness and culture	0.46	3.14	0.00				
Human resources	0.19	1.23	0.22				

Table 6 shows a statistically significant effect at the significance level ($0.05 \geq \alpha$) for the factors affecting electronic payment. The correlation coefficient (R) reached (0.70), which is a statistically insignificant value, indicating a statistically significant degree of correlation between the independent variables and the dependent variable. The value of (R-square) reached (0.49), which is a statistically significant value that explains the effect of the factors on electronic payment, meaning that the influential factors explain (49%) of the change in electronic payment, and the value of the test (F) reached (14.97) with a statistical significance of (0.00), which is a statistically significant value that indicates the existence of a variance in the ability of the independent variables to affect the dependent.

Regarding the sub-hypotheses, the results showed the following:

- The first sub-hypothesis: Protection and security methods have a statistically significant effect on electronic payment at the significance level ($0.05 \geq \alpha$), as indicated by (T, β) values of (0.78, 4.25). As a result, the first sub hypothesis is accepted in its alternative form.
- The second sub-hypothesis: Awareness and culture have a statistically significant effect on electronic payment at the significance level ($0.05 \geq \alpha$), as indicated by (T, β) values of (0.46, 3.14). As a result, the second sub hypothesis is accepted in its alternative form.
- The third sub-hypothesis suggests that human cadres have no significant effect on electronic payment at the significance level ($0.05 \geq \alpha$). The values of (T, β) were (0.19, 1.23), indicating statistical insignificance. As a result, the third sub hypothesis is accepted in its null form.

4.4 Recommendations

Based on the aforementioned, the study suggests the following:

- The importance of relying on and prioritising improving the quality of customer services so that the bank can compete in the future and provide services that meet their expectations.
- Bank management should be concerned with how to simplify work procedures and reduce the time required to provide customer service by motivating employees and providing them with the necessary

empowerment to perform their work with quality, as well as working to ensure that all bank employees respect customers.
- The bank's website with which the customer deals must offer a variety of services and be simple to use.
- The importance of providing employees with sufficient knowledge to answer customer questions about electronic payments.

4.5 Limitations and Proposed Future Studies

- The current study was unable to distribute all the questionnaires in person to the study sample, as the questionnaire was distributed electronically.
- The researcher was unable to conduct interviews to enhance the quantitative aspect of the study.
- Due to time and resource constraints, this study could not cover related and significant areas. Therefore, the researcher sees that there is available research potential in studying electronic payment and its impact on tax evasion variables.
- It is necessary to conduct this study across different sectors, whether governmental or private, such as the Jordanian Income and Sales Tax Department, due to the lack of such studies and the need to employ qualitative and quantitative methodologies.
- Conducting longitudinal studies and comparative studies on commercial banks and Islamic banks to was build more trust in the results of this study.
- One of the limitations that this study faced is the potential for bias due to the study tool, namely the questionnaire, and the surrounding moral conditions, which may contribute to respondents not providing accurate answers that reflect the actual situation.

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