Fintech Adoption in Palestine: Bank Customers' Perspectives

Bahaa Sobhi Awwad

1 Introduction

One of the key characteristics of the human mind is creativity and innovation. A mind whose owner does not look for everything new, or at least deal with scientific progress positively, is considered by people as a negative mind, or that its owner is not qualified to live in an advanced society, on the one hand, and is unable to keep pace with the development that the world is experiencing every day, on the other hand. The world of today is experiencing a tremendous technological revolution that is developing constantly with an amazing speed; this revolution has affected almost all aspects of everyday life, including financial institutions, in general, and the banking sector, in particular (Bomod et al., 2020; Derbali, 2021).

One of the most important outputs of the current technology revolution is the concept of Fintech, which resonated and spread quickly at the global level until it swept over the Arab world. Fintech has originated in China, New York, London, Singapore, and Hong Kong. It provides various, useful services to many individuals and companies in rapid, easy, safe, and less expensive ways compared to the traditional financial services. Fintech paves the way to achieving the desired level of efficiency in different sectors (Bin Fadda & Bin Hassan, 2020).

In general, Al-Hafiz (2019) has postulated that Fintech is any technological invention and/or innovations that are employed in the financial services and banking industry; these innovations are used in this vital sector and have developed a serious technology that competes with traditional financial markets. It is worth noting that a lot of emerging companies have had a major role in the process of creating new technologies. Abdul Aziz (2017) has added that Fintech represents a set of supply and demand markets for goods and services through which companies use electronic

B. S. Awwad (✉)
Palestine Technical University – Kadoorie, Tulkarm, Palestine

M. Al Mubarak, A. Hamdan (eds.), *Technological Sustainability and Business Competitive Advantage*, Internet of Things,
https://doi.org/10.1007/978-3-031-35525-7_10

applications and digital platforms to achieve communication between providers of goods and services and their consumers and thus support trade based on demand. According to the Reserve Bank of India (2017), Fintech is a set of financial innovations that can produce new business models, applications, processes, or products that directly affect financial markets, institutions, and the provision of financial services. Fintech has created a new field that has attracted banks that sought to increase their profits and achieve an economic position within a new world of competing banking systems; most of these banks have extensive experience in this field; they constantly try to create a business plan that combines software and technology to provide a distinct variety of financial services (Abdul Rahim & Bin Kaddour, 2018; Adeosun et al., 2023).

Among the most important sectors that financial institutions adopt in the field of Fintech are payments and money transfers, insurance, digital financing, lending, wealth management, and block chains and cryptocurrencies; it is worth saying that the payments sector is the most significant sector that uses Fintech the most within global markets.

Based on the foregoing, the technological revolution witnessed by all economic sectors, in general, and the banking sector, in particular, has made the necessity employing or even dealing with technology the cornerstone of all transactions in a way that contributes to survival, growth, and continuity. The current study tries to identify the barriers, advantages, components, and dangers or risks of adopting Fintech in Palestine from the perspective of bank customers (Razzaque & Hamdan, 2020). This study constitutes a strong scientific basis for potential, prospective, or future research because there is a noticeable shortage or lack of similar studies in the Palestinian field; consequently, the current study is meant to contribute to guide decision-makers toward the risks and barriers of Fintech in the Palestinian banking sector from the point of view of customers.

2 Literature Review

Abad-Segura et al. (2020) conducted a study to analyze the productivity of scientific research on Fintech worldwide during the period 1975–2019; the study findings revealed a growing and dynamic international interest and care in scientific research activity in the subject of financial technology at the global level. These findings were confirmed by Sanjiv R. Das (2019) who stated that the growing field of Fintech and various Fintech models and technologies is currently acquiring a high and advanced position scientific research domains at the international level. Schindler (2017) tried to answer two significant questions related to Fintech; the first question relates to the reason for using financial technology now. In his attempt to answer this question, Schindler stated that a lot of the technologies that support financial technology as innovations are not new, but financial institutions and entrepreneurs are now applying them only to improve and develop financial products and services. The reason could be related to the tendency to analyze the rapidly moving supply

and demand factors; furthermore, the "traditional" financial innovation stresses its need for a set of factors that require a large amount of cooperation. The second question was an attempt to find out why is Fintech getting more attention than traditional innovation. Schindler argued that this could be linked with the necessity of activating the "depth" of innovation for financial technology. The deeper the innovation, the greater its ability to transform and change financial services for the better (Razzaque et al., 2020).

Accordingly, many recent studies have emerged that dealt with the merits of Fintech from a general perspective. Hussein (2020), for example, carried out a study which aimed to measure the impact of Fintech on economic justice. The study found that Fintech positively affects economic growth and the process of financial inclusion and supports and affects it whereas the principles of the liberal growth theory negatively impact the economic justice; the study recommended the need for governments and international organizations to focus on the appropriate use of technology by the poorest and most marginalized people in order to achieve the goals of economic development. Another study was conducted by Bin Fadda and Bin Hassan (2020) to investigate and scrutinize the reality and challenges of the use of technology in the Arab world in order to propose some solutions and suggestions that will contribute to activating its use. The researchers concluded that the countries of the world, such as America and China, have made great strides in this field despite its modernity while the Arab world is still behind despite the efforts made to expand its use. This could be attributed to the inadequacy of the economic and legal climate and the resistance of the financial system to the changes resulting from the use of Fintech. Therefore, Arab countries are supposed to provide the appropriate environment to benefit from the advantages of this field.

With regard to financial institutions, the study of Purnomo and Khalda (2019) aimed to analyze whether the impact of Fintech is good or bad on national financial and banking institutions. The study concluded that Fintech may hinder the development of banking business, but it may also be an opportunity that can be exploited by the banking sector itself. It can digitize banks and encourage engagement with Fintech. This is due to the fact that Fintech has captured a large part of the market share of the banking industry. Another study conducted by Ngari and Muiruri (2014) showed the extent to which the banking industry in Kenya during the past ten years participated in financial innovations, and its transition from traditional banking services to Fintech technologies to better meet the increasingly complex needs of its customers. The study was guided by the following specific objectives to determine whether credit card and banking operations, mobile phone, and Internet banking affect the financial performance of commercial banks in Kenya. The study results showed that financial innovations had significant impacts on the financial performance of banks. Furthermore, Hasan (2019) carried out a study in Sudan and sought to identify the uses of electronic banking, the reasons for its non-proliferation, and the failure to meet the needs of customers in obtaining electronic banking services with the required efficiency; the researcher also meant to find out the most important barriers and risks they face. The study concluded that banks should update and expand their electronic services and identify and prioritize

the wishes as well as ambitions of customers to achieve them in order for the bank to obtain customer satisfaction; these banks are also required to conduct marketing campaigns to increase banking awareness with the need to focus on the security and confidentiality elements in electronic banking services.

On the other hand, Jerene and Sharma (2020) showed that developing countries such as Ethiopia are striving to adopt Fintech in order to modernize the financial system. However, the acceptance of Fintech by consumers faces many challenges. Fintech includes electronic platforms designed by bankers to allow their customers to access financial services, mobile banking, and bank cards. The study revealed the intent of bank customers to positively adopt Fintech; it also revealed customers' awareness toward subjective standards and the perceived usefulness of these technologies. Purba et al. (2019) also attempted to develop a framework for assessing Fintech adoption in a number of Indonesian companies and banks. The study emphasized that the emergence of technology-assisted innovations in financial services has resulted from the confluence of ambitions and customer preferences, particularly among millennials and digital native citizens regarding the convenience, speed, and cost of increasingly needed financial services. The results indicate that Fintech represented by modern technologies, especially those related to the Internet, large data, mobile technology, and computing power, has become the engine of innovations in financial services. There are also many business opportunities that have allowed new entrants in the financial sectors to use IT collaboration systems.

Within the Islamic banking domain, Bomod et al. (2020) meant to shed some light on the positive impact of Fintech innovations on developing the performance of Arab Islamic banks; Fintech technologies and innovations enable banks to easily introduce their financial products and provide their services with efficiency and high quality, which is positively reflected on their competitiveness in various financial markets. The study concluded that Arab Islamic banks have gained great achievements especially those which relate to the wide spread of these banks in various Arab countries, the continuous development in their work, and their tireless quest to avoid past mistakes, look forward to future developments, as well as face the challenge of applying Fintech innovations due to the specificity of these Islamic banks as they are supposed to handle or deal with their customers in accordance with the Islamic laws. In another study carried out by Al-Amrawi (2019), the researcher aimed to find out the extent to which Fintech platforms can be used as a means to promote the growth of the Islamic financial industry; the researcher conducted a case study of the Nasdaq Dubai CSD Murabaha platform with the aim of demonstrating its importance in promoting Islamic finance through managing the liquidity of Islamic banks and promoting the growth of the Islamic Sukuk market on Nasdaq Dubai. The study concluded that the Nasdaq Dubai Murabaha platform efficiently manages the liquidity of Islamic banks while enhancing the activity of listing sukuk on the Nasdaq Dubai stock exchange, which led to an increase in demand from local and international investors and consequently the growth of the size of the sukuk market. The study recommended Islamic banks to manage their liquidity through the Nasdaq Dubai Murabaha platform to take advantage of its components, on the one hand, and to avoid legal violations of transactions on the

London Metal Exchange, on the other hand. It also took up a study by Bilal Khan, M., Ahmad Ghafoorzai, S., Patel, I., and Mohammed Shehbaz, D. (2021) that addresses major challenges and financial problems faced by Indonesian farmers. Inadequate level of working capital and inability to access funding sources constitute major constraints to the agricultural sector. It proposes a new financing solution: the waqf-based Islamic Fintech model to fund farmers' long-term and short-term projects. The study is based on a qualitative approach. The study concludes to important recommendations. The adoption of an integrated Waqf-based Islamic Fintech model, which provides halal financing alleviates Indonesian farmers' problems in rural areas.

With regard to emerging companies, Abdul Rahim's study (2018) presented a modern concept related to the field of Fintech that attracts emerging companies, which are now competing with other financial institutions and banks especially by adopting software and technology to provide a distinguished variety of financial services. The study findings showed that the emerging companies face a number of barriers and difficulties such as the security and confidentiality of information and deceptive electronic transactions, in addition to legalizing and diverting the loyal customer's behavior to traditional institutions and trying to attract him. The researcher also found that despite the failure of all emerging companies to replace banks, they still posed a threat to the existence of a segment of customers who long for technology and digital use, especially after they have gained a lot of support by the largest universal institutions around the world such as Facebook.

In light of the growing interest in Fintech and its technical applications, it was necessary to address the barriers, advantages, components, and risks of adopting Fintech in Palestine from the perspective of bank customers in order to try to come up with appropriate recommendations that support the decisions of these banks.

3 Study Methodology

3.1 Study Population and Sample

The researcher of the current study adopted the descriptive approach to describe the study sample and its variables, in addition to the analytical approach in order to identify the barriers, advantages, components, and risks of adopting Fintech in Palestine from the perspective of bank customers. The study population consisted of customers of the largest Palestinian banks including the Arab Bank, Bank of Palestine, and Palestine Islamic Bank. The study was conducted on a random sample of (500) customers of commercial and Islamic banks that make up the study population. Table 1 below shows the distribution of the study sample based on the various study demographic variables.

Table 1 Distribution of the study sample based on demographic variables

Sample distribution based on demographic variable		
Variable	Frequency	Percentage
Distribution based on gender		
Male	356	71%
Female	144	29%
Distribution based on age		
Less than 30 years	91	18.20%
Between 30–40 years	289	57.80%
More than 40 years	120	24.00%
Distribution based on city		
Tulkarm	125	25%
Nablus	125	25%
Ramallah	125	25%
Qalqilyah	125	25%
Distribution based on bank		
Arab Bank	125	25%
Bank of Palestine	125	25%
Arab Islamic Bank	125	25%
Palestine Islamic Bank	125	25%
Distribution based on educational level		
Diploma or less	81	16%
Bachelor degree	297	59%
Higher Studies	122	24%
Total	500	100%

3.2 Study Questions

The current study aimed to identify the adoption of Fintech in Palestine from the perspective of bank customers. To achieve this goal, the main question of the study can be formulated as follows:

What are the dimensions of Fintech adoption in Palestine from the perspective of bank customers?

To answer the main question, the researcher raised a number of sub-questions which appear as follows:

- What are the barriers the use of Fintech face from the perspective of Palestinian bank customers?
- What are advantages of using Fintech from the perspective of Palestinian bank customers?
- What are components of using Fintech from the perspective of Palestinian bank customers?
- What are the dangers or risks of using Fintech from the perspective of Palestinian bank customers?

– Are there differences in the adoption of Fintech in Palestine from the perspective of bank customers that could be attributed to the demographic variables?

3.3 Study Tool

In this study, the researcher used a questionnaire which was developed to suit the purpose of the study; the five-point Likert scale was used, so that each answer was given relative importance. The validity and reliability of the tool were measured as follows:

3.3.1 Validity of the Tool

The study tool was given to a group of specialized arbitrators. The arbitrators were asked to express their opinion on the paragraphs of the questionnaire in terms of the formulation of the paragraphs, and their suitability for the field in which they were placed, either by approving, modifying their wording, deleting them for lack of importance, or adding new paragraphs. The opinion of the majority of the arbitrators' committee members was taken into consideration in the arbitration process, and thus the validity of the content of the questionnaire was achieved. For more information about the study tool in its final form.

3.3.2 Reliability of the Tool

The reliability coefficient of the tool has been extracted using Cronbach's alpha equation. Table 2 below shows the reliability coefficients of the study tool and its fields.

It is clear from Table 2 that the validity of the various fields of the survey paragraphs ranges between 0.704 and 0.746, where the total stability is 0.718, which makes it suitable and applicable for scientific research purposes as recommended for use by other economic and human studies; this means that the validity of the study tool is universally accepted.

Table 2 Cronbach's alpha coefficient

Variable	Number of paragraphs	Cronbach's alpha coefficient
Barriers of using Fintech	5	0.705
Advantages of using Fintech	5	0.704
Components of using Fintech	5	0.746
Danger or risks of using Fintech	5	0.719
Adoption of Fintech	20	0.718

4 Analysis of the Study Questions

To determine the paragraphs, arithmetic means and standard deviations were calculated, and consequently, the total score was determined; the results in the subsequent tables will show this. In order to interpret the results, means were calculated as follows:

Relative importance	Mean
High degree	3.67–5
Medium degree	2.34–3.66
Low degree	1–2.33

4.1 Analysis of the Relative Importance of the Dimensions of Using Fintech

Table 3 shows the relative importance of the paragraphs/items of barriers of financial technology were high as the arithmetic mean was 3.686; the paragraph that relates to " A preference for traditional banking operations over the use of electronic services" got the highest rank with an arithmetic mean of 3.79 and a standard deviation of 0.809. The paragraph "One feels lack of confidence in electronic banking transactions or operations" got the lowest rank with an arithmetic mean of 3.41 and a standard deviation of 0.931. This indicates that there were real barriers that hinder the use and the adoption of financial technology in Palestine.

Table 4 shows the relative importance of the paragraphs related to the advantages of using Fintech. It is clear from the table that the score was low as the mean is 2.22;

Table 3 Mean, standard deviation, and the relative importance of the barriers of using Fintech

Paragraph No.	Paragraph	Means	Standard deviations	Rank	Relative importance
1	One feels lack of confidence in electronic banking transactions and operations	3.41	0.931	5	High
2	The cost of electronic banking services is considerably high	3.69	1. 0.683	2. 3	Medium
3	There is not enough technical infrastructure in Palestine	3.76	3. 0.695	4. 4	High
4	A preference for traditional banking operations over the use of electronic services	5. 3.79	6. 0.809	7. 1	High
5	There is a slowdown in Internet services by providers, which affects use of financial technology	8. 3.78	9. 0.912	10. 2	High
Barriers of using Fintech		3.686	0.432	High	

Table 4 Mean, standard deviation, and the relative importance of the advantages of Fintech

Paragraph no.	Paragraph	Means	Standard deviations	Rank	Relative importance
6	There is ease in using electronic banking services	2.21	0.961	2	Low
7	There is speed in obtaining the electronic banking service	2.1	0.878	3	Low
8	The electronic banking service is available around the clock	2.07	0.889	4	Low
9	The electronic banking service is implemented anywhere	1.97	1.134	5	Low
10	The electronic banking service reduces transaction costs	3.92	1.021	1	Low
Advantages of using Fintech		2.22	0.769	High	

Table 5 Mean, standard deviation, and the relative importance of the components of Fintech

Paragraph no.	Paragraph	Means	Standard deviations	Rank	Relative importance
11	Government and financial institutions seek to provide basic infrastructure	2.15	0.894	2	Low
12	There are videos and brochures guiding customers on how to use electronic banking services	2.11	0.894	3	Low
13	There must be exemptions for electronic banking services from any fees so that they become free	3.12	0.826	1	Medium
14	Your bank's website is constantly improving	1.87	0.979	4	Low
15	There are laws and legislations that promote working in electronic banking services	1.69	1.07	5	Low
Components of using Fintech		2.188	0.730	Low	

and the paragraph "The electronic banking service reduces transaction costs" was considered the first and its mean is 3.92 and standard deviation is 1.021. As for the paragraph "The electronic banking service is implemented anywhere," it got the last rank with a mean as 1.97 and a standard deviation as 1.134.

Table 5 shows the relative importance of the paragraphs that relate to the components of financial technology; it had a low score with a mean of 1.69. The paragraph that states "There must be exemptions for electronic banking services from any fees so that they become free" was ranked first with an arithmetic mean of 3.12 and a standard deviation of 0.826. As for the paragraph "there are laws and legislations that promote working in electronic banking services," it got the last rank with an arithmetic mean of 1.69 and standard deviation of 1.07.

Table 6 shows the relative importance of the paragraphs that relate to the risks and dangers of using financial technology; it was high with a mean of 3.74. The

Table 6 Mean, standard deviation, and the relative importance of the dangers and risks of Fintech

Paragraph no.	Paragraph	Means	Standard deviations	Rank	Relative importance
16	The risks of dealing with electronic banking services are high	3.57	0.891	5	High
17	The degree of security in electronic banking services is low	3.77	0.882	3	High
18	There is a possibility that the privacy of the bank's customers may be breached by a third party	3.78	0.862	2	High
19	There are no clear laws to protect banking dealings with electronic services	3.89	0.997	1	High
20	There is a fear that the bank will take advantage of the lack of paper copies and deduct commission amounts from customers	3.69	1.11	4	High
Dangers and risks of using Fintech		3.74	0.739	High	

Table 7 Mean, standard deviation, and the relative importance of adopting financial technology

Dimension	Mean	Standard deviation	Rank	Relative importance
Barriers to using Fintech	3.68	0.432	2	High
Advantages of using Fintech	2.22	0.769	3	Low
Components of using Fintech	2.18	0.730	4	Low
Dangers and risks of using Fintech	3.74	0.739	1	High
Using or adopting Fintech	2.95	0.557	Medium	

paragraph "There are no clear laws to protect banking dealings with electronic services" was ranked first with an arithmetic mean of 3.89 and a standard deviation of 0.997. The paragraph "The risks of dealing with electronic banking services are high" got the last rank with an arithmetic mean of 3.57 and a standard deviation of 0.891.

Table 7 shows the relative importance of the dimensions of adopting and using financial technology in Palestine. All of them came in a medium degree with a mean of 2.95 and a standard deviation of 0.557. The results show that the financial technology risk dimension was in the first place with an arithmetic mean of 3.74 and a standard deviation of 0.739, while the components of financial technology dimension was ranked last with a mean of 2.18 and a standard deviation of 0.730.

To answer the question: Are there differences in the adoption of financial technology in Palestine from the perspective of bank customers based on demographic variables? The following tables show the results of the t-test and one-way analysis of variance (ANOVA) to indicate the adoption of financial technology according to the demographic variable (gender, age, city, bank, and educational level).

Table 8 T-test results for adopting and using Fintech based on gender variable

Male (n = 365)		Female (n = 144)		t.	p.
Mean	Standard deviation	Mean	Standard deviation	1.087	0.844
3.79	0.214	3.72	0.297		

Table 9 Numbers, means, and standard deviations for the adoption of financial technology in Palestine based on the age variable

Age	Number	Means	Standard deviations
Less than 30 years	91	3.79	0.239
Between 30–40 years	289	3.79	0.156
More than 40 years	120	3.71	0.177

Table 10 One-way analysis of variance (ANOVA) for the adoption of financial technology in Palestine based on the age variable

Source of variance	Df	Mean square	SS	F	P
Between groups	2	0.138	0.069	0.290	0.748
Among groups	484	115.15	0.238		
Total	486	115.288			

Table 11 Numbers, means, and standard deviations for the adoption of financial technology in Palestine based on the city variable

City	Number	Means	Standard deviations
Tulkarm	125	3.78	0.179
Nablus	125	3.61	0.393
Ramallah	125	3.86	0.242
Qalqilyah	125	3.69	0.652

It is evident from Table 8 that there are no statistical differences for the adoption of financial technology in Palestine based on the gender variable, because the total degree of the calculated significance level (p = 0.844) is higher than 0.05 (Table 9).

It is clear from Table 10 that there are no differences for the adoption of financial technology in Palestine based on the age variable because the significance level is 0.748.

It is clear based on the results shown in Table 11 above that there are differences among respondents' perspectives toward adopting Fintech in Palestine based on the city variable. To find out whether these differences were significant or not, ANOVA was carried out.

It is clear from Table 12 that there are statistically significant differences at the significance level ($a \leq 0.05$) in the averages of financial technology adoption in Palestine based on the city variable. This is because the significance level is 0.018.

It is evident from Table 13 that there is a difference in the averages of financial technology adoption in Palestine, in favor of the city of Ramallah compared to other cities in the overall field (Table 14).

Table 12 One-way analysis of variance (ANOVA) for the adoption of financial technology in Palestine based on the city variable

Source of variance	Df	Mean square	SS	*F*	*P*
Between groups	3	3.135	1.045	7.987	0.018
Among groups	492	269.402	0.546		
Total	495	272.536			

Table 13 LSD dimensional comparison analysis

	Tulkarm	Nablus	Ramallah	Qalqilyah
Tulkarm		0.16	−0.08	0.02
Nablus	−0.16		−0.25*	0.13
Ramallah	0.08	0.25		0.09
Qalqilyah	0.02	0.13	0.09	

*Means significant at the level ($a \leq 0.05$)

Table 14 Numbers, means, and standard deviations for the adoption of financial technology in Palestine based on the bank variable

Bank	Number	Means	Standard deviations
Arab Bank	125	3.25	0.178
Bank of Palestine	125	3.88	0.168
Arab Islamic Bank	125	3.18	0.198
Palestine Islamic Bank	125	3.87	0.173

Table 15 One-way analysis of variance (ANOVA) for the adoption of financial technology in Palestine based on the bank variable

Source of variance	Df	Mean square	SS	*F*	*P*
Between groups	3	0.114	0.038	0.160	0.923
Among groups	483	115.174	0.238		
Total	486	115.288			

It is clear from Table 15 that there are no differences for the adoption of financial technology in Palestine based on the bank variable because the significance level is 0.923.

It is clear based on the results shown in Table 16 above that there are differences among respondents' perspectives toward adopting Fintech in Palestine based on the educational level variable. To find out whether these differences were significant or not, ANOVA was carried out.

It is clear from Table 17 that there are statistically significant differences at the significance level ($a \leq 0.05$) in the averages of financial technology adoption in Palestine based on the educational level variable. This is because the significance level is (0.007).

It is evident from Table 18 that there is a difference in the averages of financial technology adoption in Palestine, in favor of holders of the bachelor degree compared to other educational levels in the overall field of the study.

Table 16 Numbers, means, and standard deviations for the adoption of financial technology in Palestine based on educational level variable

Bank	Number	Means	Standard deviations
Diploma or less	81	3.81	0.211
Bachelor degree	297	3.69	0.286
Higher studies	122	3.74	0.165

Table 17 One-way analysis of variance (ANOVA) for the adoption of financial technology in Palestine based on the educational level variable

Source of variance	Df	Mean square	SS	*F*	*P*
Between groups	2	0.233	0.116	9.876	0.007
Among groups	484	115.055	0.238		
Total	486	115.288			

Table 18 LSD dimensional comparison analysis

	Diploma or less	Bachelor degree	Higher studies
Diploma or less		0.12	0
Bachelor degree	−0.12		0
Higher studies	0	0	

*Means significant at the level ($a \leq 0.05$)

5 Discussion, Recommendations, and Future Studies

The aim of the study was to show the extent to which financial technology is adopted in Palestine from the perspective of bank customers; the researcher meant to do so by analyzing the dimensions represented by barriers or obstacles, advantages, components, and risks of adopting Fintech from the perspective of the customers of the four most important commercial and Islamic banks in Palestine. The results concluded that the level of total adoption of financial technology in Palestine is medium; furthermore, the results showed a high relative importance of two dimensions, i.e., barriers and risks especially with regard to the preference of traditional banking operations and transactions over the use of electronic services, due to the fact that there are no clear laws that help to protect banking dealings with electronic services. The researcher believes that the risks and the general culture of not accepting everything that is new, especially in an environment characterized by instability such as the Palestinian environment, may be reflected in the adoption of financial technology (Fintech). The researcher also noticed that the relative importance of the two dimensions of the advantages and components of financial technology was low despite the reduction in transaction costs by exempting electronic banking services from any commissions and/or fees. The researcher believes that the average/medium level of financial technology adoption in Palestine could be attributed to the balance between barriers and risks, on the one hand, and the advantages and components, on the other hand.

With regard to demographic variables, the study found that there are no differences in the adoption of financial technology in Palestine that could be attributed to the variables of gender, age, and bank, while there are differences attributed to the city and educational level variables. The researcher believes that the competitive banking environment in Palestine worked to create a general convergence in electronic services between banks for the two genders irrespective of their ages, while the large cities that have strong and large commercial and financial influence have sought to adopt financial technology in banking transactions due to its low costs and high speed. Furthermore, the high educational level of the study respondents reflects a greater level of knowledge of the Fintech system used in the banking industry; it also helps keep pace with the rapid developments.

Based on the foregoing results, the study recommends that banks should enhance the confidence of their customers in electronic banking services by providing an adequate technical infrastructure to motivate and hasten the adoption of financial technology in Palestine. In addition, the various bank managements are required to set and develop strategic plans that aim to educate customers about financial technology and electronic banking services. There is also an urgent need to develop laws and legislations that contribute to strengthening the legal process of electronic transactions while working to provide high levels of security in electronic banking services.

Finally, this study presented a general picture of the adoption of financial technology in Palestine from the perspective of bank customers. Since financial technology has become of increasing global interest, future studies – especially those that may be conducted in the Palestinian arena – should deepen the research about the various aspects of Fintech by focusing on electronic service providers in financial institutions, other sectors, and emerging companies in the field of financial technology. Finally, future studies are likely to discuss the major challenges that may hinder the complete adoption as well as implementation of Fintech in Palestine.

Acknowledgements The author is thankful to Palestine Technical University—Kadoorie for funding this research.

References

Abad-Segura, E., González-Zamar, M.-D., López-Meneses, E., & Vázquez-Cano, E. (2020). Financial technology: Review of trends, approaches and management. *Mathematics, 8*(6), 951. https://doi.org/10.3390/math8060951

Abdul Aziz, S. (2017). The growing economy of sharing via digital platforms. *Itijahat Al-Ahdaath: Future for Studies and Advanced Research, 1*(19), 66–69. Retrieved from: https://futureuae.com//media/gigeconomy_cf8f1148-2670-4d38-b87e-1d2d1adc9ddb.pdf

Abdul Rahim, W., & Bin Kaddour, A. (2018). The trends of financial technology in the light of successful companies' experiences. *Al-Ijtihad for Economic and Legal Studies Review, 7*(3), 11–35. Retrieved from: https://www.asjp.cerist.dz/en/article/59854

Adeosun, O. T., Shittu, A. I., & Ugbede, D. (2023). "Disruptive financial innovations: the case of Nigerian microentrepreneurs", *Journal of Business and Socio-economic Development, 3*(1). 17–35. https://doi.org/10.1108/JBSED-01-2021-0006

Al-Amrawi, H. (2019). The financial technology platforms as a mechanism to enhance the growth of Islamic financial industry: A case study: NASDAQ Dubai Murabaha platform. *Journal of Investment and Strategy, 9*(3), 343–363. Retrieved from: https://search.emarefa.net/detail/BIM-903552

Al-Hafiz, H. (2019). What is Financial Technology? *The Arab Academy for Banking and Financial Sciences, 26*(1), 58–59. Retrieved from: https://search.emarefa.net/detail/BIM-883810

Bin Fadda, W., & Bin Hassan, H. (2020). The reality of using Fintech in the Arab World. *The Journal of Administrative and Financial Sciences, 4*(3), 111–130. Retrieved from: https://www.asjp.cerist.dz/en/article/140111

Bomod, I., Awatif, M., & Shafyeh, S. (2020). The positive impact of financial technology innovations in the development of Arab Islamic bank. *Roa Iktissadia Review Algeria, 10*(1), 333–384. Retrieved from: https://www.asjp.cerist.dz/en/article/129915

Das, S. R. (2019). The future of fintech. *Financial Management Association International, 48*(4), 981–1007. https://doi.org/10.1111/fima.12297

Derbali, A. (2021). "Determinants of the performance of Moroccan banks", *Journal of Business and Socioeconomic Development, 1*(1). 102–117. https://doi.org/10.1108/JBSED-01-2021-0003

Hasan, A. F. A. (2019). Banking and financial technology: A case study of Sudanese banks for the period 2000-2018. *The Arab Academy for Banking and Financial Sciences, 26*(1), 44–51. Retrieved from: https://search.emarefa.net/detail/BIM-883809

Hussein, R. A. M. (2020). The impact of financial technology on economic justice. *Scientific Journal of Economy and Trade, Ain Shams University, Egypt, 8*(4), 473–522. Retrieved from: https://jsec.journals.ekb.eg/article_132296_a65ed067ebdfe09460a2e7a334f9399c.pdf

Jerene, W., & Sharma, D. (2020). The adoption of financial technology in Ethiopia: A study of bank customers' perspective. *Journal of Banking and Financial Technology, 4*(1), 53–63. Retrieved from:. https://doi.org/10.1007/s42786-020-00015-0

Ngari, J., & Muiruri, J. (2014). Effects of financial innovations on the financial performance of commercial banks in Kenya. *International Journal of Humanities and Social Science, 4*(7), 51–57. Retrieved from: http://www.ijhssnet.com/journals/Vol_4_No_7_May_2014/7.pdf

Purba, J. T., Tan, J. D., & Widjaya, A. E. (2019). Financial technology as an innovation strategy for digital payment services in the millenial generation. *Education and Humanities Research, 292*(1), 364–373. https://doi.org/10.2991/agc-18.2019.58

Purnomo, H., & Khalda, S. (2019). *Influence of Financial Technology on National Financial Institutions*. IOP Publishing, *662*(2), pp. 1–7. Retrieved from: https://iopscience.iop.org/article/10.1088/1757-899X/662/2/022037/pdf

Razzaque, A., Hamdan, A. (2020). Role of financial technology FinTech: A survey. In: Hassanien, A. E., Azar, A., Gaber, T., Oliva, D., Tolba, F. (eds) Proceedings of the International Conference on Artificial Intelligence and Computer Vision (AICV2020). AICV 2020. Advances in Intelligent Systems and Computing, vol 1153. Springer, Cham. https://doi.org/10.1007/978-3-030-44289-7_11

Razzaque, A., Cummings, R., Karolak, M., & Hamdan, A. (2020). The Propensity to Use FinTech: Input from Bankers in the Kingdom of Bahrain. *Journal of Information & Knowledge Management, 19*(01), 2040025.

Reserve Bank of India. (2017). *Group on fintech and digital banking Reserve Bank of India*. Report of the Working. Retrieved from: https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/WGFR68AA1890D7334D8F8F72.

Schindler, J. (2017). Fintech and financial innovation: Drivers and depth. Finance and economics discussion series. : Board of Governors of the Federal Reserve System, pp. 1–16. Retrieved from: https://www.federalreserve.gov/econres/feds/files/2017081pap.pdf