

FINTECH AND FINANCIAL INCLUSION: THE MEDIATING ROLE OF DIGITAL MARKETING

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Abstract. This study aims to test the role of digital marketing as a mediating variable in the relationship between financial technology and financial inclusion. The researcher applied the descriptive analytical approach to the data collected by developing a questionnaire distributed to 375 employees in the Jordanian banking sector. The researcher also used structural equation modeling to test the study hypotheses through SmartPLS software 3. One of the study's most important findings is that digital marketing partially mediates the relationship between financial technology and financial inclusion. The study recommends that the Jordanian commercial banking sector should use advanced strategies that enhance technological innovation and digital marketing through the existence of an evolved environment for financial technology that is optimally exploited.

Keywords: digital marketing, financial technology, financial inclusion.

JEL Classification: F65, G21, G32.

Introduction

The tremendous developments in financial technology (fintech) and competition at the local and international levels led to a major qualitative shift in the banking industry. It shifts from traditional banking, which prevailed for long periods, to digital banking, which relies heavily on fintech, which provides a digital system for traditional banking requirements at low costs and prices (Abu Karsh & Abufara, 2020; Kurmanova et al., 2020). Wang et al. (2020) indicated that the digital transformation strategy positively impacts financial performance in the short and medium terms. The banking sector aspires to provide its services and financial products through techniques characterized by ease of use and low cost. Thus, it strives to include all members of society with these services, which is positively reflected in reducing the disparity of financial inclusion (FI) in banking services and products.

FI is regarded as an activity that links individuals who cannot access and use financial services to banks in proportion to their financial capabilities and thus access to a financial system that enables economically excluded individuals to integrate into the economy and contribute to its development (Banerjee et al., 2020). Hence, fintech can be harnessed to achieve FI (Asian Development Bank, 2014)

by accelerating access to banking financial services, and products by all segments of society, particularly the poor classes or those that do not deal with banks. For instance, Kemal (2019) found that suppose mobile banking services enabled women in society to obtain the total value of the grants provided to them safely and comfortably by agents. In this case, the banking sector should use marketing methods that help persuade society groups to deal with banking through fintech channels, which should be characterized by ease of use and low costs.

Moreover, in light of the digital age that the world is witnessing today, the marketing function in any institution is one of the essential functions for its success. Therefore, relying on the latest technologies in line with the fintech used is necessary to implement this function and reach the largest segment of customers, particularly in the banking sector. Users of technological tools increase, specifically in banking services. Hence, relying on digital marketing (DM) methods as one of the quick and low-cost methods to provide these services becomes necessary, as well as helping these customers carry out their transactions and activities with ease and safety. Daud et al. (2022) indicated that the digitization of marketing is one of the means used by business entities to follow the flow of digitization. The reason is that many companies, including the

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banking sector, have started to shift from traditional to digital business to reach all parts of the world.

The current research derives its importance from the vast developments in fintech and whether the Jordanian commercial banking sector depends on fintech to enhance FI and reach all segments of society. At the level of the Jordanian environment, Jordan has witnessed a significant development in the field of fintech owing to its possession of an investment environment. This investment environment encourages innovation in conjunction with the support of the Central Bank of Jordan for initiatives and innovations that use fintech easily, efficiently, and safely, with the need to enhance cyber security for these services. Notably, the Central Bank of Jordan continued to develop the payment and settlement system in partnership with the banking sector, as follows (Central Bank of Jordan, 2020):

1. Providing the service of displaying and collecting invoices electronically through the e-fawateercom system.
2. The regulatory guide for the Regulatory FinTech Innovation Lab was launched to find entrepreneurs and encourage innovation and development in the fintech field to enhance digital financial services and access them efficiently, effectively, and safely.
3. Issuing a document regulating digital banks in the Hashemite Kingdom of Jordan, aiming to maintain development and innovation to achieve the targeted growth in the banking sector and transform the economy into a comprehensive digital economy.
4. Using digital financial services, including asset tokenization through blockchain technology, and working on creating the infrastructure necessary to implement this technology.

Recent developments have indicated that technology has an essential role in improving FI owing to its ability to reduce transaction and product costs, enhance product quality, increase choices and flexibility for customers, and thus increase the benefit of the financial product (Damodaran, 2013).

The Central Bank of Jordan also launched the national strategy for FI by defining five axes: financial culture, financial consumer protection, financing for small and medium-sized companies, microfinance services, and digital financial services. This strategy aims to achieve two main goals:

1. Raising the level of FI, as measured by the number of adults who own accounts in financial institutions.
2. Reducing the financial access gap between sexes (Central Bank of Jordan, 2020, 2021).

According to the researcher's deep knowledge, this study is among the first to deal with the relationship between fintech and FI through the impact of DM as a mediating variable on this relationship. Thus, this study contributes to bridging the gap in the previous literature, particularly when introducing the mediating variable (DM). This study also opens future horizons for researchers and enriches the library, specifically when discussing the Jordanian environment.

Through the preceding, the current study seeks to research a topic that has increased competition in the banking sector, resulting from the tremendous developments in fintech. The study focuses on the field of providing banking financial services and products and access to FI. Hence, this study aims to test the mediating role of DM in the relationship between fintech and FI in the Jordanian commercial banking sector.

1. Literature review and hypothesis development

1.1. Fintech

Developments in the field of fintech are not limited to one country or one currency. Therefore, these developments must be monitored very carefully by the authorities to prevent loopholes in fintech (Hollanders, 2020).

The increasing use of the Internet and smart devices is one of the reasons that led to an increase in interest in fintech, particularly in the banking sector, which is witnessing a major technological revolution in banking operations. Hassan (2022), Liu et al. (2021), and Subanidja et al. (2021) indicated that investing in electronic devices, software, technical systems, and the number of ATMs (fintech) has a positive impact on the financial performance and the sustainable performance of the financial and banking sectors and companies in general. This notion was confirmed by Tan et al. (2018) and Li et al. (2021) that advanced technologies, particularly those related to the Internet, big data, and mobile phones, greatly enhance technological innovation, specifically in the field of financial services.

The banking sector aims to use fintech to reduce costs, improve the security of financial transactions, and keep pace with the continuous development in society, which enables them to establish and develop different types of banking businesses, such as artificial intelligence, open banks, blockchain, and mobile services (Kovalchuk, 2020). However, this case increases banks' operational and long-term risks (Saksonova & Kuzmina-Merlino, 2017).

Fintech refers to the use of digital technologies in the banking industry, which leads to the creation of new products in the financial markets (Liu et al., 2020; Milian et al., 2019).

Research showed that fintech is a set of new digital services that consist of one or more financial services (Rainer et al., 2018; Tapanainen, 2020; Khurana, 2018; Phimolsathien, 2021; Al Ajlouni & Al-hakim, 2018; Bi et al., 2020; Zaghlool et al., 2021; AlMomani & Alomari, 2021; Leong & Sung, 2018). Examples of such services include ATM service, mobile and Internet services, financial payments, financing and investment, lending and insurance services, digital financial advisory, electronic money transfer, and lending support operations between lenders and borrowers through online asset and property management. Alternatively, the so-called digital finance aims to achieve low cost, high efficiency, and free time and space constraints (Li, 2021). That is, digital finance is a process

represented in providing financial solutions through technology (Buckley et al., 2016). On the contrary, Schueffel (2016) indicated that digital finance is a new financial industry that applies fintech to improve financial activities. Alkhazaleh and Haddad (2021) stressed that the availability of these services, ease of access, and security use have a positive and important impact on customer satisfaction in the banking sector.

Fintech brings many benefits to customers, players, and the economy as follows: customers: more product choices, lower prices, and quality in services; players: supporting FI, facilitating the flow of information, shortening the chain of transactions, capital efficiency, and operational flexibility. As for the economy, fintech supports the transmission of monetary policy, supports economic growth, and increases the speed of money (Khaerunnisa, 2018). Moreover, Saraswati et al. (2021) and Wardhani (2021) found that fintech touches all aspects of life and brings with it speed and efficiency, thereby positively affecting household consumption in the short and long terms. Therefore, the nature of the banking business is changed dramatically (Quddus, 2020).

Iskandar (2020) concluded that the following areas of application of fintech have a positive impact on enhancing the effectiveness of FI (Anyfantaki, 2016):

1. Technology lending: the process of providing money to individuals through technology lending, characterized by low cost, appropriate interest rate, and speed of implementation.
2. Technological payment: an electronic payment process made by individuals at any time and at the lowest possible cost.
3. Blockchain: an encrypted and distributed database to record data for any transaction or contracts (Kapadia, 2020). This chain allows control of transactions without the need for intermediaries and is characterized by security as it performs a series of algorithms to evaluate the accuracy of the transaction, verify it, and use it by the real person.
4. Technology investment and savings: automated procedures that provide advice and financial guidance in the field of profits and financial planning, which is reflected in the correct selection of investments, savings, and financial portfolios in line with the desires of investors.
5. Technology financing: the process of obtaining funds through social media platforms, such as buying stakes in certain projects or marketing products easily and at a lower cost.
6. Technological financial control: controls financial performance according to regulations and instructions and knowledge of strengths and weaknesses, which helps reduce bank account penetrations and combat money laundering.

Accordingly, the first hypothesis is proposed:

H1: Fintech has a positive effect on FI.

1.2. DM

The tremendous developments in fintech, the Internet, and mobile technology have created new opportunities for companies and consumers to move to DM. Companies in general and the banking sector in particular use DM to promote banking products and services, providing greater access to customers and positively reflecting on the intention to use customers (Manju & Kavitha, 2021; Vidal et al., 2021; Goswami et al., 2022). Sindani et al. (2019) concluded that Internet banking had made the banking industry in Kenya more productive and efficient. They also concluded that ATM services strongly correlate with FI. By contrast, Shen et al. (2020) found that the Internet has no direct impact on FI except by providing digital products to people but rather contributed to the eradication of financial illiteracy; the direct impact was the level of financial culture.

Shin (2021) concluded that the customer experience of digital banking services positively affects the intention to reuse through satisfaction as a mediating variable. In addition, Gautam and Sharma (2017) and Al-Alawi et al. (2021) found significant positive effects of marketing through social media and customer relationships on consumers' buying intentions. Then, Lee (2021) clarified that although digital banking services achieve ease in banking services, one of its defects is technological profiling, which hinders FI.

Studies explained that DM focuses on the customer and answering inquiries through digital platforms to understand customer behavior on time, which helps reach the largest audience (Ištvanic et al., 2017; Kowsalya, 2020; Piñeiro-Otero & Martínez-Rolán, 2016; Mobydeen, 2021; Minculete & Olar, 2018; Blazheska et al., 2020). DM is marketing services or products through digital technologies, primarily through the Internet, mobile phones, displays, ads, e-mail, electronic books, and optical discs, along with digital data about customer characteristics and behavior. Thus, DM creates demand through the close link with new information technology opportunities, and the challenges provided by digital media technology (Internet) (Desai, 2019; Teixeira et al., 2018; Stokes, 2011; Chaffey et al., 2006). Nyimbiri (2021) concluded that transferring funds through mobile technology interests the people who use it (Teutio et al., 2021). Moreover, using mobile money transfers and bank deposit services significantly impacts FI by showing the effect of cost and competitive advantage on the intention to rely on it.

Chaffey et al. (2009) explained that DM has a set of tangible and intangible benefits, where the tangible benefits are increased sales and sales opportunities. These tangible benefits will reflect positively on revenues and more new markets and customers, reduce costs because of reduced service time, and reduce printing and distribution costs. Then, intangible benefits will enhance the brand, improve customer service, meet customer expectations, have better management of marketing and customer-related information, benefit from customer feedback on any

products, and thus continuously improve the future. Jaafar and Khan (2022) emphasized that DM impacts attitude, brand awareness, and trust. In DM, the main advantages of scientific and technological means, such as artificial intelligence and big data analysis appear, which improves marketing communication and thus enhances the social impact of DM. Purba et al. (2020) found that digital financial products provided through fintech achieve happiness for respondents (Li, 2022). As for the banking sector, the authors emphasized (Rullis & Sloka, 2010; Daj & Chirca, 2009; Ebong & George, 2021) that financial institutions must implement new DM techniques (e.g., applications of digital innovations, such as digitizing business) to improve cost and deal with the crisis of confidence and thus promoting FI. This case can also increase marketing efficiency by providing the necessary solutions for marketing within Internet banking services. This notion was reinforced by the finding of Popović-Pantić et al. (2020) that companies that do not use digital technologies in innovation cannot expect an improvement in their performance.

Al-Hakim and Al-Hamami (2017) explained that the dimensions of DM are as follows:

1. Attraction: a method that depends on the interaction between the consumer and the interactive application.
2. Absorption: the users' involvement in participation, interest, interaction, and completion of procedures.
3. Retention: maintaining appropriate and interactive content to develop a relationship with customers and sustainability of the commitment over time.
4. Learning: a method that represents an interactive means to obtain more customer data and information, such as surveys, questionnaires, and registration.
5. Communication: this consists of knowing more about the consumer, providing personal services, and informing him of the availability of more services.

According to Hasbi et al. (2021), DM has four dimensions:

1. Transaction or cost: a promotional technique with high efficiency and low cost.
2. Incentive programs: provide more excellent value to the company.
3. Website design: the attractive appearance in DM media that can provide positive values to the company.
4. Interaction: a relationship between a company and a consumer to give and receive information.

Therefore, the researcher proposed the following hypothesis:

H2: Fintech has a positive effect on DM.

1.3. FI

DM and FI have an important impact on business sustainability in companies, as they help promote and market products and thus increase market share (Lamidi &

Rahadhini, 2021). FI is described as a state in which everyone can access a range of financial services of high quality and reasonable prices in conjunction with the comfort and protection of customers (Korynski, 2019). That is, FI is the means by which financial services are characterized by ease, reduced costs, and available to all companies and individuals, regardless of their net wealth and business size (Demirgüç-Kunt et al., 2015). To access digital financial services, speed, ease, and low costs are necessary for registering and obtaining financial services (Owens, 2013).

FI refers to ensuring that low-income groups have access to appropriate and timely financial and credit services at an affordable cost (Roy, 2015). In confirmation of this, Liu et al. (2021) indicated that the industrial economy and government intervention are common determinants of the development of digital FI in urban and rural areas. Moreover, the delivery, environmental factors, and impact of mobile financial services are still in the research stage. Furthermore, a bias exists in institutional conditions to implement mobile financial services (Kim et al., 2018).

Ozili (2020) and Villarreal (2017) defined FI as providing access to financial services and providing them to all members of society, particularly the poor, with ease. FI is a tool that enhances the ability to achieve development goals. By contrast, Barajas et al. (2020) defined FI as the community's access to financial services, the degree of benefit from them, their quality, and their cost. Zins and Weill (2016) also pointed out that FI refers to a person having an account in a financial institution, allowing him/her to provide and borrow money and use electronic payment services.

Research indicated the importance of FI as follows (Bansal, 2014; Fellag & Charfi, 2020; Bouzana & Hamdouche, 2020):

1. FI is a humanitarian activity and a commercial opportunity that includes the largest segment of society.
2. Owing to the great disparity in benefiting from financial services, FI seeks to reach the largest possible segment and provide comprehensive financial services to them.
3. FI helps achieve financial stability and economic growth.
4. FI enhances competition among financial institutions.
5. FI protects savings and social development.

FI has a set of dimensions (Doeveren, 2017; Damodaran, 2013; Iskandar, 2020): access to financial services, availability of financial services, demand for financial services, effective use, quality of financial services, financial literacy, financing of small and medium enterprises, quality of infrastructure, technological knowledge, barriers, and improving the quality of products and services. Gokilavani and Durgarani (2020) found that convenience, security, and effectiveness in terms of ease of use, cost, and information privacy positively and significantly impact FI. Meanwhile, Kumaran et al. (2019) used four dimensions

to verify the use of mobile banking services for the deaf category: efficiency, effectiveness, satisfaction, and accessibility.

Therefore, the researcher developed the following hypothesis:

H3: DM has a positive effect on FI.

1.4. Impact of DM on the relationship between fintech and FI.

Bongomin and Ntayi (2020) indicated that FI is affected by the adoption and use of money through mobile phones and digital consumer protection. Siddiqui and Siddiqui (2020) revealed that telecommunications have a clear impact on FI and that low-income families suffer from insufficient access to financial services. Moreover, Kurniasari et al. (2021) showed that the growing digital technology factors affect the customers' decision to choose fintech through the knowledge of customers as an interfering variable. Therefore, increasing education and promoting and providing sufficient information are essential to increase knowledge of fintech.

Farida et al. (2021) showed that financial culture does not affect financial behavior. Although the use of fintech affects financial behavior, financial culture and the use of fintech together have an impact on financial satisfaction. Finally, using technology, finance has no impact on financial satisfaction through financial behavior as an intervening variable.

Kumar et al. (2019) showed that digital banking services and channels positively impact FI. Liu et al. (2021) also found that fintech has a significant and positive impact on the return on equity and the nominal interest margin and has a positive but not significant effect on the return on assets. Contrary to their findings, Al-Hawari (2005) noted that the automated banking service failed to obtain an important relationship with customer retention.

Vyas and Jain (2021) found that a complete mediation of the technology acceptance model exists in the relationship between the digital economy and FI. Bongomin and Munene (2019) also showed an important and positive mediating role for cultural norms in the relationship between the adoption and use of money through mobile phones and FI in small and micro enterprises in developing countries. In addition, Bongomin et al. (2018) found that social capital predominantly mediates the relationship between financial intermediation and FI and that social capital among the poor plays an important role in promoting financial intermediation to improve FI. Moreover, Bongomin et al. (2021) found that adopting the Internet luxury doctrine leads to improving and using money through mobile phones, affecting FI. Al-Dmour et al. (2022) also showed that marketing knowledge management positively impacts business performance and that technological financial innovation partially mediates the relationship between them. Accordingly, the following hypothesis is developed:

H4: DM has a mediating effect on the relationship between fintech and FI.

2. Study model and methodology

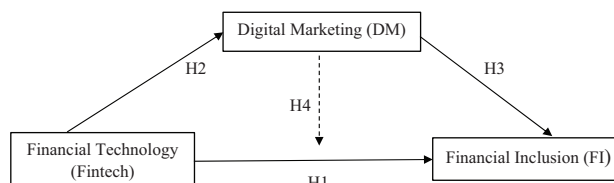


Figure 1. The research model Figure 1 illustrates the proposed study model, which explains the impact of DM on the relationship between fintech and FI

2.1. Method and design

The present study relied on quantitative and qualitative methods. More specifically, the researcher used structural equation modeling to test the study hypotheses through SmartPLS software 3.

2.2. Study population and sample

The study population consists of all employees in the Jordanian commercial banking sector, numbering 15644 employees (Association of Banks in Jordan, 2021) who were selected from 13 commercial banks operating in Jordan. The study sample comprised 375 employees working in the Jordanian commercial banking sector; they were selected using the random sampling method by referring to the table of random numbers (Krejcie & Morgan, 1970). The analysis unit consisted of managers, department heads, tellers, and customer service. A total of 358 questionnaires were retrieved, whereas eight were excluded because they were invalid for analysis. Therefore, the valid questionnaires for analysis were 350 or 93% of the total number of distributed questionnaires.

2.3. Measurements

The questionnaire was developed and divided into four sections. The first section includes the respondents' demographic data. The second section included questions related to fintech and was measured through 10 questions that were instructed by a study (Iskandar, 2020; Goswami et al., 2022). Then, the third section consists of 9 questions to measure DM, which were adopted from the study (Al-Hakim & Al-Hamami, 2017; Mobydeen, 2021; Jar Allah, 2017). The fourth section includes questions related to measuring FI, which was measured through 8 questions developed from the study (Iskandar, 2020; Kurniasari et al., 2021; George, 2020; Bongomin & Ntayi, 2020). Moreover, the five-point Likert scale was used to classify the answers of the study sample members (strongly agree, agree, neutral, disagree, and strongly disagree). Table 1 shows the demographic characteristics of the study sample.

Table 1. Demographic characteristics of the study sample

Variables	Category	Frequency	Percentage (%)	
Gender	Male	232	66.3	
	Female	118	33.7	
	Total	350	100%	
Age	30 years or Less	70	20	
	31–40	149	42.6	
	41–50	104	29.7	
	Over 50 years old	27	7.7	
	Total	350	100%	
Education Level	Diploma or Less	64	18.3	
	Bachelor	233	66.6	
	Master	47	13.4	
	PHD	6	1.7	
	Total	350	100%	
	Experience	5 years or Less	63	18
		6–10	139	39.7
11–15		113	32.3	
15 years and above		35	10	
Total		350	100%	
Position	Manager	20	5.7	
	Head of the Department	34	9.7	
	Teller	171	48.9	
	Customers Service	125	35.7	
	Total	350	100%	

2.4. Validity and reliability

To verify the tool’s validity, the questionnaire was presented to a group of arbitrators specialized in the field of the current study to obtain observations and suggestions and to come up with the questionnaire in its final form. Thus, the questionnaire is considered valid to achieve the study’s objective. In addition, the researcher used Structural Equations Modeling–Least Squares Technology through SmartPLS.3 software to analyze the data and verify its validity.

Table 2 and Figure 2 shows the loading factors, all of which are greater than 0.70, which is within the acceptable limits for this test. The table also indicates the extracted average variance values, where all of which are acceptable, as they are greater than 0.50. Moreover, the researcher used Cronbach’s alpha and composite reliability values to ensure internal consistency in the questionnaire items. As Hair et al. (2010) posited, Cronbach’s alpha values for all variables are acceptable if they are greater than 70%, as shown in Table 2. Finally, HTMT values show that they do not include 1, which indicates the validity of the indicators.

Table 2. Factor loadings, validity and reliability of the questionnaire

Variables	Indicators	Convergent Validity		Internal Consistency Reliability		Discriminant validity
		Loadings > 0.70	Average Variance Extracted > 0.50	Cronbach’s Alpha	Composite Reliability	
Financial Technology (Fin-tech) (FT)	FT1	0.709	0.588	0.922	0.934	Yes
	FT2	0.725				
	FT3	0.806				
	FT4	0.794				
	FT5	0.800				
	FT6	0.771				
	FT7	0.737				
	FT8	0.732				
	FT9	0.816				
	FT10	0.773				
Digital Market (DM)	DM1	0.716	0.585	0.914	0.927	Yes
	DM2	0.753				
	DM3	0.819				
	DM4	0.754				
	DM5	0.755				
	DM6	0.821				
	DM7	0.728				
	DM8	0.769				
	DM9	0.763				
Financial Inclusion (FI)	FI1	0.779	0.687	0.936	0.946	Yes
	FI2	0.874				
	FI3	0.815				
	FI4	0.805				
	FI5	0.874				
	FI6	0.785				
	FI7	0.817				
	FI8	0.874				

Note: Output: smart PLS According to Hair et al. (2014).

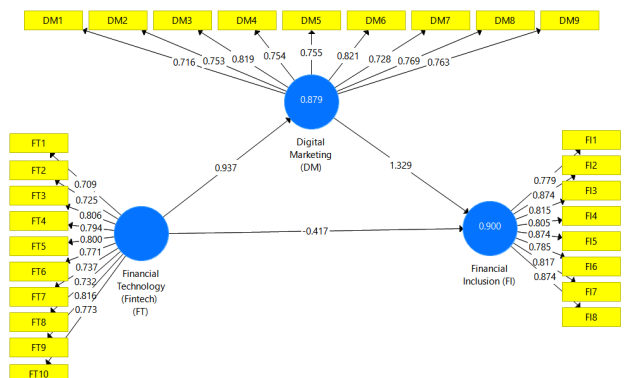


Figure 2. Structural model

3. Data analysis and hypothesis testing

3.1. Descriptive analysis

Table 3. Descriptive statistics

Variable	Mean	Standard Deviations	Level
Financial Technology	2.473	0.957	Moderate
Digital Marketing	2.490	0.936	Moderate
Financial Inclusion	2.450	0.907	Moderate

Table 3 shows the values of the arithmetic means and standard deviation of the study variables, where the results indicate a moderation in all study variables. Thus, participants indicate that the Jordanian commercial banking sector has a moderate level of fintech, DM, and FI.

3.2. Hypothesis testing

Table 4 shows the results of the analysis of the study’s hypotheses. Fintech has a significant and positive impact on FI, with an interpretation level of 71.4%. The t-test value was 45.891 with a significance level of 0.000; therefore, the first study’s hypothesis is accepted. Fintech also has a significant and positive impact on DM, with an interpretation level of 89.6%. This result is reinforced by the t-test value of 128.49 with a significance level of 0.000 and accepts the hypothesis of the second study. The results also show a significant and positive impact of DM on FI, with an explanation rate of 91.3% and a t-test value of 273.49 with a significance level of 0.000. Therefore, the third study hypothesis is accepted.

To test the hypothesis of the fourth study, the researcher relied on the methodology of Preacher and Hayes (2008). The results of analyzing the mediating effect of DM on the relationship between fintech and FI results are evident in Tables 4 and 5. Table 4 shows that the strength of the interpretation of fintech on FI was 87.8%, with the presence of the mediating variable DM, an increase of 16.4% over the direct effect of the first hypothesis.

The results presented in Table 5 reinforce this finding, where it becomes clear that the lower confidence interval levels reached 1.128, and the upper confidence interval levels reached 1.364, and that zero does not cut them. Consequently, we found that DM partially mediates the relationship between fintech and FI at a significance level of 0.000.

4. Results and discussion

The study’s results indicate there is a positive impact of fintech on FI, as this result is consistent with the study’s results (Iskandar, 2020; Kemal, 2019). The study also found that fintech has a positive impact on DM, and this result agrees in terms of the study content (Sindani et al., 2019; Shin, 2021; Al-Alawi et al., 2021; Gautam & Sharma, 2017). This result was confirmed by some researchers (e.g., Saraswati et al., 2021; Wardhani, 2021) that fintech touches all aspects of life and thus affects all financial activities in a way that enhances financial performance. Accordingly, the rapid developments in fintech should be exploited, such as banking platforms and the mobile phone, to expand the access of all segments of society to banking services at the lowest possible cost, which speeds up the process of access to FI. In addition, DM has an active role in answering customer inquiries, which helps in reaching the largest segment of society (Ištvančić et al., 2017; Kowsalya, 2020; Piñero-Otero & Martínez-Rolán, 2016; Mobydeen, 2021; Minculete & Olar, 2018; Blazheska et al., 2020).

The study also found a positive impact of DM on FI. This result agrees with Kumar et al. (2019), Bongomin and Ntayi (2020), and Siddiqui and Siddiqui (2020). Lamidi and Rahadhini (2021) and Prabowo (2018) emphasized the significant role that DM and FI play in business sustainability and the rapid promotion and marketing of products and services, thereby increasing the market share.

Finally, the study showed that DM partially mediates the relationship between fintech and FI. This result agrees in terms of the content with previous studies. Previous studies showed that technology acceptance mediates the

Table 4. Hypotheses testing results

	Variables	R ²	R ² Adjusted	B	SD	t -test	Sig	Decision
H1	FT → FI	0.715	0.714	0.848	0.018	45.891	0.000	Accepted
H2	FT → DM	0.896	0.896	0.948	0.007	128.49	0.000	Accepted
H3	DM → FI	0.913	0.913	0.957	0.003	273.49	0.000	Accepted
H4	FT → DM → FI	0.879	0.878	1.250	0.060	20.90	0.000	Accepted

Note: Significant at the level of 0.05.

Table 5. Mediation analysis

	Path a	Path b	Indirect effect	S.E	Bootstrapped Confidence Interval			Decision
					t-value	95% LL	95%UL	
H4	0.937	1.329	1.246	0.060	20.76	1.128	1.364	Mediation

relationship between the digital economy and FI (Vyas & Jain, 2021). Studies also demonstrated a mediating role of cultural norms in the relationship between mobile money use and FI (Bongomin & Munene, 2019). Moreover, Al-Dmour et al. (2022) concluded that technological financial innovation mediates the relationship between knowledge management and business performance. Accordingly, we found that using DM based on fintech to reach FI is the best way for companies, including the banking sector, to reach the largest possible market share. Therefore, the banking sector must be more proactive in offering its products digitally by exploiting developments in fintech, taking advantage of opportunities, and avoiding potential threats.

Conclusions and recommendation

The study used the descriptive analytical method using structural equation modeling to test the study hypotheses. In addition, the technique of Preacher and Hayes (2008) was applied to test the hypothesis of the mediating variable. The study concluded that DM partially mediates the relationship between fintech and FI.

The results of this study provide benefits in several ways. First, the study provides empirical evidence for the mediating the effect of DM on the relationship between fintech and FI. Second, the study expands the theoretical framework related to the subject of the study.

Based on the results of the present study. The study recommends that commercial banks must pay more attention to financial technology by holding training courses for employees in areas of application of financial technology.

In addition, use advanced strategies that enhance technological innovation and digital marketing through the existence of an evolved environment for financial technology that enhances financial inclusion. More particularly, activate the tools of digital marketing to acquire new customers and maintain them for as long as possible.

The study recommends conducting future studies in other sectors using different mediating or moderating variables, such as banking awareness and business modeling, because this field still needs more studies.

Limitations

The results of this study are related to the Jordanian commercial banking sector, so it is valid for generalization within the limits of this sector only. Moreover, lack of prior studies that addressed the study variables combined. Furthermore, delayed responses of respondents answering questionnaire questions because of the nature of their work.

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