The FinTech Banking Role of Improving Banking Market Share in Emerging Markets: Evidence from Egypt

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Abstract:

Purpose

The study aims at investigating the role of FinTech banking in improving the banking market share in the Egyptian banking industry as an emerging market.

Design/methodology/approach

Using quantitative and qualitative analysis for the market's share of Egyptian banks, this study examined the period from 2013 to 2019 for seven banks under quantitative analysis on the one hand, and the study data collection for 412 banks' clients under qualitative analysis on the other hand.

Findings

According to quantitative analysis, the study found the reflection of FinTech on the market shares of banks through banking investments in FinTech hardware. This variable explains 14% of the change in the market shares of banks. According to qualitative analysis, the study found the reflection of FinTech on the market shares of banks through existing and potential clients, by influencing the level of client satisfaction, On the other hand, FinTech is improving the perceived mental image of banks; these variables explain 68.19% of clients' preferences for banks.

Originality/value

The study used two distinct analytical methods to investigate FinTech banking's role in improving the banking market share; the findings provide new insights into FinTech banking investing as a supporter of competitive positioning for banks and provide implications for practitioners and FinTech developers, as well as contribute to the literature of FinTech banking adoption for retail clients. The bank should invest in FinTech banking, innovation, and training staff and clients; that will improve the bank's image for potential clients and give existing clients quality and ease of use to increase client satisfaction. Banks can grasp what causes client pleasure in FinTech to improve their market share.

Keywords:

FinTech Banking; Banking Market Share; client satisfaction; Image Bank; Egyptian banking industry.

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1. Introduction

Initially, the term "FinTech" refers to financial technology; that was a project launched by "Citigroup" to achieve integration between "financial services" and "information technology" to foster technical cooperation. Nowadays, "FinTech" is a name for businesses that use contemporary, innovative technology to allow financial services to be delivered. In a wider sense, FinTech is regarded as a new, financially, and technologically integrated market (Arner et al., 2015 A). Thus, it is a fact that FinTech started with banks, but then banks faced competition from FinTech firms, which created a situation of unfair competition since FinTech firms were not subject to the same regulatory restrictions imposed on FinTech banking. Thus, FinTech can be classified into two types: FinTech banking, and FinTech firms, and the current study is investigating the first type.

FinTech banking has significant implications for banks' marketing efforts (Dootson et al., 2016), and it has grown more important to create a connection between a bank's client and its brand (Mbama and Ezepue, 2016; Alalwan et al., 2017). FinTech banking drives is an important means of providing clients with multi-channel services, where the story begins with ATMs in the first half of the twentieth century and ends with e-wallets in the third decade of the twenty-first century. These include plastic cards, the telephone, the internet (E-Banking) and mobile applications as examples of retail banking. In contrast, points of sale (POS) and receipt of payments through the Internet serve as examples of corporate banking.

Some may think that FinTech banking is only for clients, but it also supports the internal work environment by facilitating banking operations for staff as well, as is the case with credit reports or credit evaluation systems. On the other hand, the concept of supervising financial technology for regulatory purposes emerged, which is known as "regulatory technology" (RegTech). FinTech has gone through stages that are often classified into three stages; according to Arner et al. (2015), FinTech 1.0 was the first stage supported by technology infrastructure, including transatlantic transmission cables, from 1866 to 1987. Followed by FinTech 2.0, from 1987 to 2008, financial services companies increasingly digitized their processes. Since 2008, in both developed and developing nations, a new era of FinTech has evolved.

FinTech banking plays a major role in strengthening the competitive position of the bank when banks want to keep their clients' satisfied and are always trying to increase engagement and create a relational connection with them (Moliner et al., 2018). Banks aim to incite loyal brand engagement by connecting with clients' emotions and creating lasting relationships (Boateng, 2016; Moliner-Tena, 2019; Moliner et al., 2018). FinTech banking cuts waiting times and boosts client satisfaction while helping banks see improved profits (Al-Zadjali et al., 2015).

This study aims to provide a conceptual model that investigates the role of FinTech banking in improving banking market share in emerging markets through a descriptive study of the Egyptian banking industry and a quantitative and descriptive analysis to understand the mission of FinTech banking in this industry. Where client satisfaction is an intermediate variable between banking market share and FinTech banking ; that based on Image Bank, which is an exploration of this scope in African emerging markets, unlike previous studies that focused on Eastern Europe (such as: Świecka, 2001; Gurău, 2002; Biernacki, 2013; Nitescu and Kazandzhieva-Yordanova, 2017; Dospinescu et al., 2019; Sbarcea, 2019; Yakubiv et al., 2019; Kozak and Golnik, 2020; Kliber et al., 2021) and Asia (such as: Li and Zhong, 2005; Yang et al., 2009; Jamaluddin, 2013; Gautam et al., 2014; Ananda and Al Lawati 2018; Yang et al., 2018; Alkhowaiter, 2020; Rahman and Islam, 2021).

2. Theoretical framework and Literature Review

2.1 Literature Review

There is a growing interest in banking services, as previous studies that dealt with it varied to include many dimensions such as staff satisfaction (Loveman, 1979), client loyalty (Loveman, 1998), banks' call centres (Aksin and Harker, 1999), the role of social influence in banking services (Li et al., 2019; Gao et al., 2020); and entrepreneurialism in bank management (Litzinger, 1963). Addition to banking services drives such as plastic cards (Dospinescu et al., 2019; Johan, 2019), Automated teller machines –ATMs (Natarajan et al.,2017; Ganjikhah et al., 2017; Larrain et al., 2017; Dhingra, 2018; Gjika et al. 2019; Barbosa et al., 2020), internet banking - e-banking (Rahi et al., 2019; Sharma et al. 2020); mobile applications (Al-Dmour et al., 2020; Trabelsi-Zoghlami et al., 2020), points of sale – POS (Ganjikhah et al., 2017; Gjika et al. 2019) and e-wallets (Lonare et al., 2018; Moorthy et al., 2021).

As part of developing a comprehensive plan for digital financial transformation, FinTech is a series of measures that support financial inclusion as well as long-term economic development (Zetzsche et al., 2019; Senyo and Osabutey, 2020; Demir et al., 2020; Siddiqui and Siddiqui, 2020). To explain and forecast client intents and technology adoption with banking, many theories have developed over the past few years that provide insights. trying to understand and anticipate how user attitudes and behaviours relate to using the technology (Anouze and Alamro, 2019). The technology acceptance model -TAM- (Lai and Li, 2005; Surendran, 2012; Lule et al., 2012; Ahmad et al., 2020), the innovation diffusion theory (Jamshidi and Kazemi, 2019), the theory of planned behaviour –TPB- (Shih and Fang, 2004; Farah, 2017), and the theory of reasoned action (Yousafzai et al., 2010; Albarq and Alsughayir, 2013) are examples of these theories.

The major advances in digital technology have happened up to now in lending, payment systems, financial advisory services, and insurance. FinTech has the potential to reduce intermediation costs in all these sectors, expand access to credit, and support financial inclusion (Vives, 2017). Banks want to provide cheaper technologies and more quickly adaptable operating systems. Fintech banking offers a pleasant option to significantly reduce operating and management expenses, decrease offices, and cut staff at the front desk. FinTech banking offers the ability to better document all business transactions on the surface (Grigorescu et al., 2017).

The banking response to FinTech business growth globally is different: banks build up FinTech businesses' incubation programmes, set up FinTech firms' venture funds, set up partnership collaborations; some banks have bought FinTech firms, or have their own FinTech firm subsidiaries in place (Romānova and Kudinska, 2016).

2.1.1 FinTech banking and clients

The market is a continuously changing process based on client needs and desires. Banks must reflect the expectations of today's banking clients for retail and corporate banking. The development of the new technologies in banking refers to FinTech. The primary reason for clients' resistance to change in FinTech banking resistance is the fear of security, which is the same reason with e-commerce and e-government; this is consistent with what was indicated by (Grigorescu et al. 2017) Banking now involves transitioning from conventional banking techniques to online banking via product and

service packaging for clients, and customizing components to meet client requirements (Lowson, 2001). Globalization and competition have pushed banks to adapt quickly to new technological developments. Customer behaviour in these new technologies today almost forced banks to provide 24-hour service around the world (Abubakar Aliyu and Tasmin, 2012)

According to Liao and Cheung (2002), who investigated the banking industry in Singapore, expectations of accuracy, security, user friendliness, network speed, convenience, and user involvement were the most important quality attributes underlying the perceived usefulness of e-retail banking. According to Kusuma and Susilowati (2007), who investigated the banking industry in Indonesia, mobile banking offers numerous benefits to clients, including the ability to make transactions quickly and conveniently. But according to Anouze and Alamro (2019), who investigated the banking industry in Jordan, the major factors affecting intention to use e-banking are perceived ease of use, perceived usefulness, security, and a reasonable price.

According to Kozak and Golnik, (2020) under investigated Mobile banking in Poland during the period from (2016) to (2019), that digitization streamlines the process of information collection and processing and helps to reduce operational costs. It also forces banks to develop adequate security and invest heavily in technology.

According to Fawzy and Esawai, (2017) who investigated the Internet banking adoption in Egypt; that website characteristics, perceived risk, and PC efficacy had an impact on clients' adoption of internet banking.

According to Abdelbaset (2020), banking clients from Egypt have much more favourable attitudes toward using FinTech applications in Cairo, the Nile Delta, Giza, and Alexandria. As opposed to Upper Egypt, these governorates have much greater weight when it comes to using fintech.

2.1.2 FinTech Banking and Staff:

Resistance to change of new technology is one of the most common reasons why organizational transformation is not achieved; This is the cases of banks in emerging markets when adding financial technology services, there is an aspect of rejection by bank staff; This is consistent with what was indicated with (Bauer; 1991).

According to Mahdi and Dawson (2007) under investigated commercial banking sector in Sudan, there is a necessity for bank management and IT managers to cooperate in the development of IT plans, as well as to ensure that adequate employees and financial resources are available for effective execution. Comprehensive banking regulations must also be developed in Sudan to help replace old manual banking techniques with modern computer technologies. Managing this process is not only a technical matter but also a complicated socio-political problem requiring sensitivity to the changing environment.

According to Abdelbaset (2020), obstacles to FinTech in the Egyptian bank sector include both weak technological infrastructures, especially, and staff characteristics with a high age.

Finally, FinTech firms benefit from an uneven playing field in that they are less regulated than banks. FinTech firms present a much stronger challenge to established FinTech Banking (Stulz, 2019)

2.2 The Model of interactive Marketing with FinTech Banking:

According to Liao et al. (2016), sustained usage of e-banking services depends considerably on factors including trustworthiness, utility, and usability, while satisfaction and continued use intention operate as significant mediators between these variables and continued use.

A model showing the acceptability of FinTech banking was created on the basis of a literature study and focus group interviews with seven banking experts from the Egyptian banking industry (Abu Dhabi Islamic Bank Egypt, Al Baraka Bank Egypt SAE, Banque Misr, Commercial International Bank-Egypt, Credit Agricole Egypt, National Bank of Egypt, and QNB Alahli). According to our model, fintech banking's acceptability is influenced by five variables.
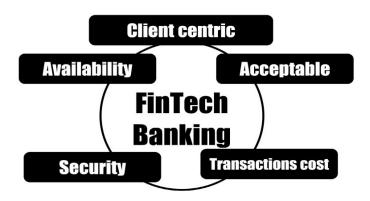
Figure (1): interactive marketing with FinTech banking

According to Figure (1), there are five factors that affect the interactive marketing of banking clients with FinTech banking services: The deciding factor is client-centricity. If FinTech banking is not related to the customer's needs and desires, it will not be successful and popular. Then come the characteristics of competition between banks, which are the competitive mix. These include channel availability, platforms that are acceptable, higher transaction security, and lower transaction costs. The model of interactive marketing with FinTech banking supports many aspects of bank client perception and behavior; this can be summarised in Figure (2).
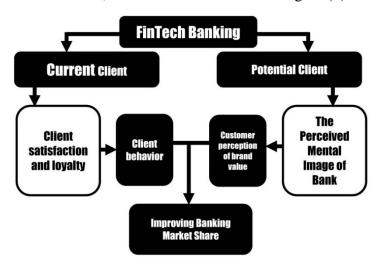

Figure (2): The relationship between FinTech and the market share of banks

Through Figure No. 2, the reflection of FinTech on the market shares of banks through existing and potential customers, is seen as influencing the level of client satisfaction and loyalty, and this is consistent with Siek and Sutanto (2019); Alwi et al. (2019); Baber (2020); Jerene and Sharma (2020); Zhang and Kim (2020); Pramaswari et al. (2021); Barbu et al. (2021); and Chen et al. (2021). On the other hand, the FinTech improving the perceived mental image of the bank (Hu et al., 2019) According to improving the quality of banking service as well (Attiany et al., 2021). So, FinTech requires demand drivers, represented in the investment of software and hardware (machines - networks - firewalls - communication lines), in addition to the bank's staff, and finally, the service features.

3- Data analysis and Hypotheses Testing:

3.1 Study design:

The study used two distinct analytical methods—quantitative and qualitative analysis—to examine the role of banking FinTech in improving banking market share and the integration between them to understand the mission of FinTech in the banking industry. whereas the banking industry's investment in software and hardware, service features, and the bank's staff based on the bank's mental image, client satisfaction, and loyalty are intermediate variables between banking market share and FinTech banking,

Client satisfaction is a way to gauge how well a service is seen to be performing in light of the needs of its clients. The client will be disappointed with the service's performance if it falls short of their expectations. The banks can grasp what causes client pleasure under fintech to improve their market share. This can strengthen cooperative connections between banks and their consumers, as well as foster a sense of loyalty among those customers, helping the bank's reputation.
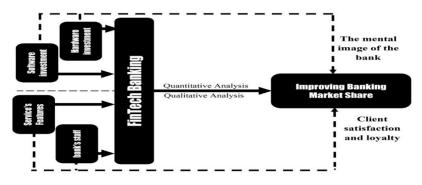

Figure (3) Study layout

3.2 Quantitative Analysis

3.2.1 Methodology and data collection

The study investigated the banking market share in the Egyptian banking industry as an emerging market during the period from 2013 to 2019. The study included seven banks: Abu Dhabi Islamic Bank Egypt, Al Baraka Bank Egypt SAE, Banque Misr, Commercial International Bank—Egypt, Credit Agricole Egypt, National Bank of Egypt, and QNB Alahli. Thus, the study can see 49 observations of the phenomenon under investigation.

3.2.2 Quantitative analysis variables

The variables of study include the independent, dependent, and control variables shown in the following table:

Table (1): Study variables for quantitative analysis

Variables	symbol	Measurement
Independent Variables	**IS**	The log value of the banking investments in FinTech software
	IH	The log value of the banking investments in FinTech hardware
Control Variables	**S**	The style of a bank; Banks are categorized as follows – Traditional – Islamic
	O	The ownership of a bank; Banks are categorized as follows – Public – Private
Dependent Variable	**MS**	The bank's share of the total deposits of the banking industry

The study investigated the FinTech banking role in improving banking market share according to the banking investment in software and hardware (machines, networks, firewalls, and communication lines) as independent variables according to the logarithmic value. But study control variables included style of a bank (Rashid and Khalid, 2017; Rizwan et al., 2018; Khan et al. 2021), ownership of a bank ownership of a bank (Griffith et al. 2002; Sathye; 2005; Arora, 2014; Rizwan et al., 2018), while the market share was according to the bank's share of the total deposits of the banking industry.

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3.2.3 Examining the FinTech Banking role of Improving Banking Market Share According to Quantitative Variables

The study tested the stationarity of the data to ensure that the mean and variance were invariant according to a unit root test, and the stationarity of the time series of the basic independent and dependent indicators at level zero was evaluated according to the constant level. This was done through the Augmented Dickey–Fuller (ADF), Philips–Perron (PP), Im, Pesaran, and Shin W-stat (IPSW), Levin, and Lin and Chu (LLC) tests at a significance level of less than 0.05. In addition to the tau statistic, the Z-statistic criteria were at a significance level of less than 0.05. According to panel data analysis under random-effects (GLS) methodology, the study found the following inferential outputs:

Model 1: Random effects (GLS), using 49 observations

Included 7 cross-sectional units

Time-series length = 7

Dependent variable: MS

Table (2): Random-effects (GLS) outputs

	Coefficient	Std. Error	z	p-value	
Const.	22.6316	2.60109	8.701	<0.0001	***
IS	0.872257	2.45153	0.3558	0.7220	
IH	1.15723	0.390774	2.961	0.0031	***
S	−4.29325	1.39942	−3.068	0.0022	***
O	−6.50962	1.37937	−4.719	<0.0001	***

Mean dependent var	7.367187	S.D. dependent var	4.970457
Sum squared resid	69.45963	S.E. of regression	1.242396
Log-likelihood	−78.07666	Akaike criterion	166.1533
Schwarz criterion	175.6124	Hannan-Quinn	169.7421
rho	−0.281316	Durbin-Watson	1.297321

'Between' variance = 2.20905
'Within' variance = 0.333734
theta used for quasi-demeaning = 0.854651
Joint test on named regressors -
Asymptotic test statistic: Chi-square (4) = 77.9662
with p-value = 4.69613e-016
Breusch-Pagan test -
Null hypothesis: Variance of the unit-specific error = 0
Asymptotic test statistic: Chi-square (1) = 53.6479
with p-value = 2.39835e-013
Hausman test -
Null hypothesis: GLS estimates are consistent
Asymptotic test statistic: Chi-square (2) = 2.22006
with p-value = 0.329549

Source: Gnu Regression, Econometrics and Time-series Library.

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Through Table No. 2, the study found, based on panel data analysis under random-effects (GLS) methodology, a significant effect of investing in financial technology in hardware on banking market share, with investments in financial technology software not significant under two control variables, but there is exact Collinearity. So the examination was done. According to panel data analysis under fixed-effects methodology, the study found the following inferential outputs:

Model 2: Fixed effects, using 49 observations

Included 7 cross-sectional units

Time-series length = 7

Dependent variable: MS

Table (3): Fixed-effects outputs within the banking investments in software

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
Const.	6.10007	0.470893	12.95	<0.0001	***
IS	2.06290	2.60831	0.7909	0.4337	
IH	0.919096	0.440193	2.088	0.0432	**
Mean dependent var	7.367187		S.D. dependent var		4.970457
Sum squared resid	13.34937		S.E. of regression		0.577697
LSDV R-squared	0.988743		Within R-squared		0.160282
LSDV F(8, 40)	439.1639		P-value(F)		1.83e-36
Log-likelihood	−37.66938		Akaike criterion		93.33876
Schwarz criterion	110.3651		Hannan-Quinn		99.79854
rho	−0.281316		Durbin-Watson		1.297321

Joint test on named regressors -
Test statistic: $F(2, 40) = 3.81753$
with p-value = $P(F(2, 40) > 3.81753) = 0.0303854$
Test for differing group intercepts -
Null hypothesis: The groups have a common intercept
Test statistic: $F(4, 40) = 26.3741$
with p-value = $P(F(4, 40) > 26.3741) = 9.43065e\text{-}011$

Source: Gnu Regression, Econometrics and Time-series Library.

Through Table No. 3, the study found that, based on panel data analysis under the fixed-effects methodology, the control variables were excluded, with investments in financial technology software being not significant, but there being a significant effect of investing in financial technology on banking market share. With repetition of the test with the exclusion of the banking investments in software.

Model 3: Fixed effects, using 49 observations

Included 7 cross-sectional units
Time-series length = 7
Dependent variable: MS

Table (4): Fixed-effects outputs without the banking investments in software

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
Const.	6.15227	0.464111	13.26	<0.0001	***
IH	1.06229	0.399398	2.660	0.0111	**
Mean dependent var	7.367187	S.D. dependent var			4.970457
Sum squared resid	13.55812	S.E. of regression			0.575053
LSDV R-squared	0.988567	Within R-squared			0.147151
LSDV F(7, 41)	506.4379	P-value(F)			1.06e-37
Log-likelihood	−38.04954	Akaike criterion			92.09908
Schwarz criterion	107.2336	Hannan-Quinn			97.84112
rho	−0.226879	Durbin-Watson			1.281237

Joint test on named regressors -
Test statistic: $F(1, 41) = 7.07416$
with p-value = $P(F(1, 41) > 7.07416) = 0.0111075$
Test for differing group intercepts -
Null hypothesis: The groups have a common intercept
Test statistic: $F(6, 41) = 297.637$
with p-value = $P(F(6, 41) > 297.637) = 3.64836e\text{-}032$

Source: Gnu Regression, Econometrics and Time-series Library.

Through Table No. 4, the study found that, based on panel data analysis under the fixed-effects methodology, without the banking investments in software and the control variables, there was a significant effect of the banking investments in FinTech hardware on banking market share. Or, in other words, changes in the banking investments in FinTech hardware explain 14% of the change in the market shares of banks.

3.3 Qualitative Analysis

3.3.1 Methodology and data collection

In the first half of 2021, data collection was conducted in Egypt to gather data for this study. An overall response rate of 76.86 percent was obtained from the 536 questionnaires that were sent to participants, with 124 being returned. A 26-item questionnaire was used to gather data from 412 clients; were assessed using a Likert five-point scale based on the questionnaire's questions.

3.2.2 Qualitative analysis variables

The variables of study include the independent, dependent, and intermediate variables shown in the following table:

Table (5): Study variables for qualitative analysis

Types of Variable	symbol			Variables
Independent Variables	D1	CC	Service features	Client centricity
		CA		Channels availability
		PA		Platforms acceptable
		TS		Transaction security
		TC		Transaction costs
	D2	SR	Bank's staff	Staff recommendations to client about banking FinTech applications
		SE		Staff experience in explaining banking FinTech
		SC		Staff cooperation in explaining banking FinTech
intermediate variables		MI		Mental image
		CS		Client satisfaction
		CL		Client loyalty
Dependent Variable		PB		Preferred Bank

The study investigated the FinTech banking role in improving banking market share according to service features, and the bank's staff under three intermediate variables with a questionnaire about preferred bank from a client.

3.3.3 Examining the FinTech banking role of improving banking market share according to qualitative variables

According to heteroskedasticity-corrected methodology, the study found the following inferential outputs.

Table (6): First round of Heteroskedasticity-corrected test

Model 4: Heteroskedasticity-corrected, using observations 1-412

Dependent variable: BP

	Coefficient	Std. Error	t-ratio	p-value	
Const.	1.10101	0.156122	7.052	<0.0001	***
D1	0.0472916	0.0192811	2.453	0.0146	**
D2	0.252679	0.0199317	12.68	<0.0001	***
IM	−0.241041	0.0132244	−18.23	<0.0001	***
CS	0.799804	0.0471635	16.96	<0.0001	***
CL	−0.0194098	0.0267050	−0.7268	0.4678	

Statistics based on the weighted data:

Sum squared resid	616.4000	S.E. of regression	1.232163
R-squared	0.716793	Adjusted R-squared	0.713306
F(5, 406)	205.5164	P-value(F)	8.0e-109
Log-likelihood	−667.5944	Akaike criterion	1347.189
Schwarz criterion	1371.315	Hannan-Quinn	1356.732

Statistics based on the original data:

Mean dependent var	4.658714	S.D. dependent var	0.591391
Sum squared resid	74.98640	S.E. of regression	0.429762

Source: Gnu Regression, Econometrics and Time-series Library.

Through Table No. 6, the study found an insignificant effect of client loyalty on the preferred bank, so the test will be re-tested without this variable.

Table (7): second round of Heteroskedasticity-corrected test

Model 5: Heteroskedasticity-corrected, using observations 1-412

Dependent variable: BP

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
Const.	1.15695	0.161704	7.155	<0.0001	***
D1	0.0683984	0.0200494	3.411	0.0007	***
D2	0.245154	0.0199320	12.30	<0.0001	***
IM	−0.240659	0.0129351	−18.61	<0.0001	***
CS	0.755324	0.0432335	17.47	<0.0001	***

Statistics based on the weighted data:

Sum squared resid	629.9105	S.E. of regression	1.244063
R-squared	0.685019	Adjusted R-squared	0.681924
F(4, 407)	221.2857	P-value(F)	1.1e-100
Log-likelihood	−672.0609	Akaike criterion	1354.122
Schwarz criterion	1374.227	Hannan-Quinn	1362.074

Statistics based on the original data:

Mean dependent var	4.658714	S.D. dependent var	0.591391
Sum squared resid	72.75807	S.E. of regression	0.422808

Source: Gnu Regression, Econometrics and Time-series Library.

Through table No. (7), the study found based on Heteroskedasticity-corrected test without client loyalty, there was a significant effect of service features; bank's staff; mental image and Client satisfaction on the preferred bank; These variables explain 68.19% of client's preference for bank.

4- Conclusions and Recommendations:

In recent years, the financial system has seen an increase in cashless transactions (Fabris, 2019); this supports the provision of financial technology services. But the fundamental issue in the forthcoming era is to strike an optimum balance between required regulation and avoiding overregulation that could undermine the competitiveness of the financial sector (Žugić, 2013). Despite the bank's size, investment in information technology (IT) has become an important component of the banking industry. Large banks tend to concentrate on efficiency and operational excellence, whereas small banks typically use a service-oriented business model that

concentrates on intimate client contacts. In both instances, IT plays an important role in the banking industry (Tallon, 2010; Romnova and Kudinska, 2016); initially, the term "FinTech" refers to financial technology; that was a project launched by "Citigroup" to achieve integration between "Financial Services" and "Information Technology" to foster technical cooperation. Nowadays, "FinTech" is a name for businesses that use contemporary, innovative technology to allow financial services to be delivered. In a wider sense, FinTech is regarded as a new, financially, and technologically integrated market (Arner et al., 2015 A). Thus, it is a fact that FinTech started with banks, but then banks faced competition from FinTech firms, which created a situation of unfair competition since FinTech firms were not subject to the same regulatory restrictions imposed on FinTech banking. Thus, FinTech can be classified into two types: FinTech banking and FinTech firms, and the current study is investigating the first type.

After thirty years of rapid technological advancement, banks' service delivery has undergone significant changes due to the use of new tools such as automated teller machines (ATM), phone banking, Internet banking, and credit cards. These tools also include mobile applications and e-wallets. FinTech banking provides clients with easier and cheaper access to their accounts 24 hours a day, seven days a week. It can be shown that clients in the "digital era" require banking but not banks. Fintech banking treatment helps banks compete for their market position and remain in touch with their clients. Doing more with FinTech banking will be the primary challenge for banks to achieve their objectives and stay participants in the market, while at the same time providing them with a competitive edge. This is consistent with what was indicated in (Grigorescu et al. 2017). But there are several variables that influence clients' attitudes toward various FinTech banks (Mansour et al., 2016). They vary between FinTech banking channels.

According to quantitative analysis, the study found the reflection of FinTech on the market shares of banks through the banking investments in FinTech hardware. This variable explains 14% of the change in the market shares of banks. The study can explain why bank investments in financial technology software were not significant given the low rates of financial inclusion in Egypt (for more, see Awad and Eid, 2018; Sayed and Shusha, 2019), as well as the low rates of education and technology acceptance among the elderly and rural people.

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According to qualitative analysis, the study found the reflection of FinTech on the market shares of banks through existing and potential clients, by influencing the level of client satisfaction, On the other hand, FinTech is improving the perceived mental image of banks; these variables explain 68.19% of clients' preferences for banks. This is consistent with Siek and Sutanto (2019); Alwi et al. (2019); Baber (2020); Jerene and Sharma (2020); Zhang and Kim (2020); Pramaswari et al. (2021); Barbu et al. (2021); Chen et al. (2021); and (Attiany et al., 2021)

The banks can grasp what causes client pleasure under FinTech to improve their market share. Therefore, the study recommends that the bank should invest in FinTech banking, innovation, training staff, and clients, which will improve the bank's image with potential clients and give existing clients quality and ease of use to increase client satisfaction. New technologies will also be able to build digital banks with creative solutions driven by design and technology: branches with cash less, smart ATMs, app counselling based on Information Technology, databases, big data analysis (Hung et al., 2021; Putra , 2021; Wang et al., 2021; Altaf, 2021) and blockchain technology (Treleaven et al., 2017; Cocco et al., 2017; Hassani et al., 2018; Garg et al., 2021; Danţiş, 2021); So, fintech banking services are a viable field for investment in Egypt due to population growth and strong demand for financial services.

In accordance with the foregoing, the study makes the following recommendations: Recommendations to regulators: The Central Bank of Egypt must enhance and invest in FinTech banking services, as they are considered drivers of growth for the Egyptian economy and banks. This can be achieved by encouraging scientific research, in addition to funding and supporting research centres that may be involved in future decision-making and policymaking. Recommendations for Egyptian banks: Egyptian banks can achieve leadership and sustainability when expanding their scope of work in Africa. Egyptian banks have the necessary expertise and resources to lead financial technology in Africa. This can be done through a strategic alliance or the acquisition of banks in host countries. Recommendations for future studies: the study suggests titles for future research. (1) the role of central banks in supporting banking FinTech in emerging markets. (2) Banking FinTech opportunities and challenges in emerging markets (3) The impact of client demographics on acceptance of banking FinTech (4) The impact of cashless transactions on consumer behavior. (5) The impact of banking FinTech on financial inclusion in emerging markets.

The study recommendation about the many phases of giving banks fintech services, which include:

(1) Determine the scope of financial technology tools: In this phase, the marketing department, especially market research, and the operations department, notably banking operations management, are responsible for locating a financial technology instrument. This is accomplished by utilizing the available technological capabilities, which necessitates that the organizational climate prevails by supporting creative practices and administrative innovation, as well as empowering employees with organizational citizenship behaviours, which is achieved by a strong leadership style.

(2) Determine the activation criteria for the technological tool: During this phase, the banking unit focuses on identifying each of the technical criteria imposed by supervisory and regulatory agencies, such as the central bank, as well as assessing the tool's acceptability based on its own characteristics.

(3) It assesses the income and expenses of the proposed financial service: Through this phase, the banking unit's interest is focused on determining the investment feasibility of providing the technology tool, and the aspects to be addressed include the investment cost of the technological tool (physical equipment/service management software proposed to provide/software from intrusion and espionage/software compatibility with operation systems used in the banking unit/training of the human element), in exchange for the benefits. In this manner, the research believes that it is essential to emphasize the significance of this step, which may be impacted in several ways by personal prejudices or reluctance to change, which slows down the application process.

(4) This is the final phase in determining the extent of the trend toward the application of the proposed financial service by the banking unit, either toward the supervisory and regulatory authorities, to obtain the necessary licenses and begin implementation, or to return to the search for a new application opportunity for the results of the banking unit based on a thorough market study conducted by the banker.

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دور التكنولوجيا المالية المصرفية في تحسين الحصة السوقية للبنوك أدلة من مصر

د. أسامة وجدي وديع؛ د. عاطف فتحي حبيب سيدهم

الملخص

الهدف

تهدف الدراسة إلى التعرف على دور التكنولوجيا المالية كأحد مجالات الخدمات المصرفية بغاية تحسين الحصص السوقية للبنوك في القطاع المصرفي المصري كإحدى الأسواق الناشئة.

التصميم / المنهجية / المدخل

باستخدام كلا من التحليل الكمي والنوعي للحصص السوقية للبنوك المصرية، غطت هذه الدراسة الفترة من ٢٠١٣ إلى ٢٠١٩ لسبعة بنوك طِبْقًا للتحليل الكمي من جانب، وقياس آراء لـ ٤١٢ عميلا بنكيا طبقا للتحليل النوعي من جانب آخر.

النتائج

وفقًا للتحليل الكمي، وجدت الدراسة أثر للتكنولوجيا المالية على الحصص السوقية للبنوك المصرية وذلك طبقا للاستثمارات البنكية في كل من الأجهزة والمعدات ذات العلاقة بالتكنولوجيا المالية، حيث فسر ذلك المتغير ١٤٪ من التغير في حصص البنوك في السوق. اما وفقا للتحليل النوعي، فقد وجدت الدراسة أثر للتكنولوجيا المالية على الحصص السوقية للبنوك المصرية طبقا للعملاء الحاليين والمحتملين، من خلال انعكاس تلك التكنولوجيا على مستوى رضا العملاء، بالإضافة الى تحسين الصورة الذهنية للوحدات البنكية؛ حيث تفسر تلك المتغيرات ٦٨,١٩٪ من تفضيلات العملاء لوحدات البنكية.

الأصالة / القيمة

استخدمت الدراسة طريقتين تحليليتين متميزتين لاختبار دور التكنولوجيا المالية المستخدمة في تقديم الخدمات المصرفية في تحسين حصص السوقية للبنوك؛ حيث قدمت النتائج رؤى مفادها ان الاستثمار المصرفي في التكنولوجيا المالية يعد داعم لمراكز التنافسي للوحدات البنكية، وحيث توفر إطار للممارسين ومطورو في مجال التكنولوجيا المالية، بالإضافة إلى المساهمة في الإطار الفكري عبر إبراز أهمية اعتماد الخدمات المصرفية على التكنولوجيا المالية عند استهدف شريحة عملاء التجزئة المصرفية. حيث يجب على الوحدات البنكية تطوير الخدمات المصرفية عبر الاستثمار في التكنولوجيا المالية لما ينتج عنها من الابتكار خدمات للعملاء، بالإضافة إلى تدريب للعاملين؛ حيث من شأن تلك الاستثمارات تحسين صورة الذهنية للوحدة البنكية لدى العملاء المحتملين إلى جانب منح العملاء الحاليين رفاهية الخدمة في ضوء جودة وسهولة الاستخدام الخدمة المصرفية، مما يساهم في تعظيم رضا العملاء. بذلك يمكن للبنوك فهم دور الخدمات التكنولوجيا المالية في إمتاع (ارضاء) العملاء مما يحسن حصتها في السوق.

الكلمات الدالة:

التكنولوجيا المالية المصرفية؛ الحصص السوقية للبنوك؛ رضا العملاء؛ الصورة الذهنية للبنك، الصناعة المصرفية المصرية.