

The reality of financial technology in Algerian banks and its role in promoting e-marketing for the period (2016-2024)

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ABSTRACT

The aim of this study is to identify the reality of financial technology in Algerian banks and its role in promoting digital marketing for the period 2016-2024. To achieve this goal, the reality of financial technology in Algeria has been studied through (the number of ATMs, online payment, and the number of users of electronic clearing.... brother), and its role in promoting digital marketing in banks.

The analytical descriptive approach was used in the study by studying digital marketing and the reality of financial technology in Algeria. The study found that there is an integrative relationship between financial technology and digital marketing, which leads to an expansion of the customer base in banks. Therefore, the study recommended the need to study and expand digital marketing through the use of financial technology in banks in order to access financial services at the lowest cost, and to expand the customer base.

Keywords: fintech; digital marketing; ATMs.

Introduction:

Financial technology is one of the most prominent innovations that have greatly affected various economic sectors, especially the banking sector. In light of rapid technological developments and successive changes in customer preferences, banks have become in urgent need of adopting new technologies to improve their performance and expand their services. Fintech has contributed to the delivery of innovative solutions that have helped banks improve their operations and enhance competitiveness in the banking market .

On the other hand, digital marketing has become an essential part of modern marketing strategies, as it allows banks to interact directly with their customers via online platforms and social media, which enhances the effectiveness of marketing campaigns and provides accurate data on customer behavior. Fintech plays a pivotal role in improving digital marketing by providing advanced tools for analyzing data and understanding customer behavior. These tools enable banks to offer customized services, increase the effectiveness of marketing campaigns, and enhance the user experience. It also helps reduce costs and increase operational efficiency, allowing banks to focus on innovation and meeting changing customer needs.

This research will address the role of fintech in promoting digital marketing in banks, and demonstrate how banks can leverage this technology to develop effective marketing strategies, increase their efficiency in attracting customers, and achieve sustainable growth in a dynamic and changing financial environment

Based on the previous purpose, and within the framework of the general objective of the study and the identification of variables and its objective, the question raised in this regard is

How does FinTech contribute to boosting digital marketing in banks?

In order to answer the problem of the study, we divided this problem into a set of sub-questions:

- ◀ What is the reality of financial technology in Algerian banks?
- ◀ What is the relationship between fintech and digital marketing in banks?

Hypotheses of the study:

As a prior answer to the questions of the study, we suggest the following hypotheses:

- ◀ The level of financial technology penetration in Algerian banks may increase due to the development and digitization of financial services, especially after the Corona pandemic;
- ◀ There is an integrative relationship between high-end marketing and fintech.

Study Objectives:

The main objective of this research is to know the role of financial technology in promoting digital marketing in banks, in light of the great efforts made by banks to deliver financial services to all customers at low cost, by studying the reality of financial technology in Algerian banks, using data and indicators during the period from 2016 to 2024, and its role in promoting digital marketing, in addition to learning about the experiences of different countries in the application of financial technology and its role in promoting digital marketing in banks through previous studies.

Significance of the Study:

This study gains its importance mainly by addressing one of the important topics in the field of banking, which is financial technology and digital marketing in banks, and trying to link financial technology to digital marketing, in order to identify the role of financial technology and its role in promoting digital marketing.

Methodology of the Study:

In this research, we adopted the descriptive analytical approach by studying the theoretical framework of financial technology, by studying financial technology and its importance and most important techniques in banks, and then studying and analyzing the reality of financial technology in Algerian banks to know its role in promoting digital marketing in banks.

1. Previous Studies:

In this section, a set of studies will be reviewed that dealt with the topic of financial technology and e-marketing in banks. **(Reginald Masoha, 2011), entitled The impact of technology on competitive marketing by banks: A case study approach**, aimed to examine and discuss the extent of technological use in various competitive marketing practices of financial institutions in unjustified competitive business environments in the twenty-first century. Against this backdrop, the study looked at the impact of technology on competitive marketing by Standard Bank in King Williams, Eastern Cape Province, South Africa. Quantitative research techniques have been used to obtain the perceptions, opinions and experiences of customers and employees in e-banking. To investigate the research problem empirically, the study primarily assumed that the use of modern banking technology significantly affects the provision of services to customers. The study concluded that there is a need to improve access to ATMs, which requires maintaining education on the use of ATMs, as commercial transactions take place 24 hours a day, and this can only be possible if there is a supporting banking network within 24 hours. Empirical Findings The results reflect the widespread prioritization of e-banking, but generally low levels of use of recently developed banking technologies by customers. In practical terms, the study informs companies, especially financial institutions, of key technological impacts, manipulating their value offerings from the South African environment

Pradeep, **Jawaher, et al, 2021**), titled Role of FinTech Adoption for Competitiveness and Performance of the Bank: A Study of Banking Industry in UAE, also sought to investigate the impact of the use of Fintech on the competitiveness of 76 professionals and the performance of the bank industry in the UAE. The study was piloted between the two banks and executives in Dubai, UAE. The results suggest that the adoption of Fintech has had a significant impact on the competitiveness and competitiveness outcomes of the bank's industry performance in the UAE. The results also indicate that appropriate adoption of fintech and compatibility with technology management also have a direct impact on the performance of the bread industry in the UAE.

The purpose of the study **(Asa, Dennis, et al., 2021)**, which is entitled **Technological Innovation as a Strategy for Competitive Advantage within the Namibian Banking Industry**, was to analyze the effectiveness of technological innovation as a strategy to enhance competitive advantage and increase market share in the Namibian banking sector. A comprehensive literature review was conducted in collaboration with a quantitative research approach to extract data on technological innovations and their impact on competitive advantage. Staff at Nedbank and FNB in Windhoek were selected as respondents representing the entire Namibian banking sector. The results revealed a positive correlation between technological innovations as a strategy, competitive advantage and increased market share. The current Fourth Industrial Revolution (4IR) expects organizations, and banks in particular, to tailor their strategies to match the

technological advances the revolutions bring with the risk of losing market share to current competitors and emerging banks.

It is worth mentioning that the study (Labidi et al., 2022), entitled **The Role of Digital Marketing Tools in Improving Banking Marketing Performance**, aims to develop and clarify a conceptual model that praises digital marketing formulas and their impact on improving marketing performance, providing a set of recommendations and suggestions that help Algerian banks in choosing the most effective digital tools and channels in line with digital marketing practices, where it reached a number of results, the most important of which is that Algerian banks are interested in digital marketing, which contributed to raising its market share, increasing its profitability and achieving customer satisfaction by expanding its customer base, and increasing the efficiency of using marketing resources while building good relationships with customers.

Based on the studies that have been presented, our study is distinguished from its predecessors in addressing the subject of the reality of financial technology in Algerian banks and its role in promoting digital marketing. Our study is consistent with previous studies in several aspects, represented in presenting the theoretical background of e-marketing and financial technology. Our study differs from previous studies in the dependent variable and the study sample, which is digital marketing in Algerian banks. Most of the previous studies focused on competitive advantage and marketing performance as a variable, while our study focused on digital marketing as a dependent variable in order to achieve the research objectives. There is a scarcity in Arab studies that dealt with the role of financial technology in promoting digital marketing in banks.

2.Fintech

In recent decades, the world has witnessed a wide digital transformation across various sectors, and the financial sector has had a large share in this development thanks to financial technology.

The term financial technology refers to "a modern banking method based on the use of electronic communication networks. The wealth of information and communication technology and electronic commerce is one of the most important factors that led to the emergence of electronic banking transactions, which led to intense competition between banks and other financial institutions." (Applied, abdou , & Adwan, 2017, p. 150) Financial technology is one of the modern technologies in banking that allows the implementation of various banking services electronically, without visiting the bank's branch. Electronic banking provides many advantages such as time, as customers do not need to visit the bank's branch. "Electronic banking transactions include all operations or activities that are held, carried out or promoted by banks and financial institutions by electronic or optical means such as: telephone, computer, ATM, digital phone, and others. Some see the introduction of information and communication technology in banking financial activity, with the required modernization of all payment and withdrawal (EVIDENCE, 2016, p. 1067) systems, credit and financial transfers." Financial innovations and inventions are also considered. These inventions include a set of digital programs that are used in banks' financial operations, including transactions with customers such as money transfer, currency exchange, calculation of interest and profit rates, and knowledge of Expected profits of investments and other financial operations

From the above, financial technology in banks can be defined as "banks providing banking services using electronic means of communication, the most important of which is the Internet, with the aim of enhancing their share in the banking market, reducing costs, expanding their services inside and outside their borders, and basically increasing return while keeping pace with global development in all its fields."

Financial technology is of great importance as it is considered as a link between the information and communication technology sectors and the financial sector, as the existence of a framework for cooperation between financial regulators in topics related to innovation would help to build institutional capabilities and enhance conditions for integrated work in order to expand financing technology, and related to financial inclusion, as the importance of automated technology is not limited to improving customer service, raising the efficiency of financial service provision, and reducing its costs and time of completion, but financial technology can contribute to achieving broader goals, which are diversifying economic activity and achieving financial stability. (Bahia, 2023, p. 100)

Digital Marketing

The novelty and importance of this topic has made many researchers try to give accurate concepts to it, so we will try to present a set of them:

Digital marketing refers to the dissemination of content through digital platforms such as search engines (SEO), social media, e-mail, websites and applications to communicate (Chaffey & Ellis-Chadwick, F, 2019) with current and potential customers. It is a process through which good content is created and published that is thoughtfully designed to attract customers , with the aim of pushing the customer (Pulizzi, 2014) to make profitable decisions for the organization . It

also includes the use of digital technologies represented in online media to achieve marketing goals. Digital marketing is the process through which the Internet, mobile devices and digital platforms such as social media, search engines and applications are used to reach the largest number of customers. (Dodson, 2016) (Kingsnorth, 2019)

When adopting e-marketing, banks seek to achieve a number of goals, increasing sales through distribution and promotion on a wider scale, providing added value to customers and getting closer to customers by following up and answering their questions, creating ways of dialogue with them, reducing the costs of services, expanding the brand of banks, where the Internet is a good way to create new values and create awareness and awareness of the brand among customers (CHAFFEY.D, 2008, p. 22).

1.3 Dimensions of digital marketing in banks .

Digital marketing in banks is the process of using digital channels to promote banking products and services, and includes several key dimensions that contribute to achieving marketing objectives. These dimensions can be summarized as follows:

First: Digital marketing in banks by phone: It was defined as all activities related to communicating with the customer through the use of the phone with the aim of promoting banking products and providing him with information.

- ✓ **Website marketing:** It is a set of interconnected web pages that form a single entity and are usually used by a person or organization in a way that combines function, content, form and interaction. The good design of the website is linked to the following criteria: ease of use, speed of loading, clarity of the homepage, attractiveness of the website, appropriate use of colors and sounds, and respect for the privacy and confidentiality of customer data. The goal remains to attract potential customers to the website, interest them and encourage them to buy banking products and services (Fattah, 2019, p. 8)
- ✓ **Email marketing:** It is a form of direct marketing that uses email as a means of communicating with customers. It also allows sending a message to many parties at a very low cost. It is an important tool for employers to practice e-business activities. It is also characterized by high efficiency and speed in successfully completing the task.
- ✓ **Second: Marketing through social media platforms**

Social media marketing has become a vital tool in digital marketing strategies, allowing companies to interact directly with their target audience and build strong relationships with them. With the growing number of users on these platforms, the opportunity to reach potential customers is greater than ever.

- ✓ **Facebook:** It is considered the most popular and important website, launched by Mark Zuckerberg in 2004. It allows users to communicate, chat, publish photos, videos and files in particular, create groups or sign up to join it (Hafez, 2017, p. 510).
- ✓ **LinkedIn:** It is one of the social networking sites, and one of the most important communication network at the professional level, with more than 120 million users from all over the world, and expanding the scope of business by attracting customers.
- ✓ **Instagram:** Established in 2010, this photo-sharing app allows users to take photos, add a digital filter, and then share them to a variety of social networking services and Instagram itself. (Sayed, 2021, pp. 52-54)
- ✓ **Twitter:** Twitter is a social media platform based on the posting of short messages known as "Tweets", where users can send and receive text content, images, videos, and links. Twitter was founded in March 2006, and has since become one of the most prominent social networks in the world. (Fattah, 2019, p. 8)

4. The role of financial technology in promoting digital marketing in banks.

The relationship between financial technology and digital marketing is largely interdependent. In the era of digital orientation, financial institutions have become heavily dependent on digital marketing tools and strategies due to their gains. This is evident in the following points:

- ✓ **Increase the effectiveness of customer targeting:** Financial institutions focus on digital marketing tools and techniques such as big data analysis and artificial intelligence to understand more accurately the needs and desires of customers and work to meet (Huang & Rust, R, 2021) and satisfy them.
- ✓ **Building trust and increasing transparency:** Digital marketing is one of the most important tools such as online evaluation and customer reviews. It helps financial institutions build and strengthen trust with customers.
- ✓ **Interaction and accessibility:** With digital marketing, help financial institutions to interact quickly through digital marketing tools such as apps, websites, email and social media.
- ✓ **Providing innovative financial services:** Through digital marketing, customers have become familiar with new services and their most important advantages, such as digital wallets and digital banking services (Zhao, Chen, L, & Wang, J, 2020)

1.4 models of the contribution of financial technology in promoting digital marketing.

PayPal relies on digital marketing strategies such as search engine optimization (SEO) and social media marketing to expand its customer base and increase trust in e-payment services.

PayPal: Strategic marketing has played a major role in increasing its customer base and enhancing their confidence in PayPal in the digital transactions industry through social media marketing and search engines (SEO), and has also facilitated and simplified the way it is used.

According to 2022 statistics, the value of digital transactions in the United States amounted to 1,801,104 million US dollars, which shows a great reliance on their shift to the use of digital payments. According to research conducted on the financial technology market in the United States of America, venture capital investment is increasing annually, and digital payments to the leading financial technology sector in the United States of America, with a market value of more than \$1.2 trillion. 60% of credit unions and 49% of banks in the United States of America believe that institutions in the field of financial technology is critical, and in the future the United States of America will constitute more than 62% of the value of global financial technology transactions (Intelligence Mordor, 2022)

5. The reality of financial technology in Algerian banks

1.5. Communication Payment Transaction Count

Algeria is among the first countries to launch the service of payment through telecommunications companies, where Mobilis is the first company to adopt the service of packing in the payment of bills online and joined shortly after by Algiers Telecom and Ooredoa.

Table (01): The evolution of the number of payment transactions via telecommunications in Algeria (2016-2024)

Years	2016	2017	2018	2019	2020	2021	2022	2023	2024
Number of Payment /Etisalat Transactions	6536	87268	138495	141552	4210284	6993135	7490626	8400869	876131

Source: (Automated Cash Pool)

From the above table, we note that there is a continuous increase in electronic payments through telecommunications, as the year 2022 witnessed the 4 largest online payment transactions in the field of telecommunications. This is due to the lack of cash liquidity in postal centers on the one hand in Algeria, and the preference of customers to pay various bills through the telecommunications network in light of the spread of the Corona pandemic., to avoid dealing with paper cash and reduce direct contact

.-5.2 Bank card in Algeria:

Algeria has begun to adopt a modern method of payment using bank cards, which was introduced in Algeria by the Algerian Foreign Bank CPA, as it allows its holder to make traditional cash withdrawals through the ATMs designated for this purpose under the supervision of SATIM. The following table shows the development of the number of cards in Algeria.

3.5 ATMs in Algeria:

Table (02): Evolution of the number of ATMs in Algeria (2016-2024)

Years	2016	2017	2018	2019	2020	2021	2022	2023	2024
Number of ATMs in Algeria	1370	1443	1441	1621	3030	3035	3658	3848	3900

Source: (Automated Cash Pool)

Through the above table, we note the development of the number of ATMs in Algeria, where the year 2024 is higher than the number of ATMs by 3900 devices, and this is due to several reasons, including the generalization of reliance on bank cards in cash withdrawals, and the increase in demand for digital banking services

4.5 Immediate Gross Settlement System : Système à Règlement Brut en Temps Réel

The Bank of Algeria, in cooperation with the Ministry of Finance, took the initiative on 15 May 2006 to adopt this system. It is considered a system for interbank settlement of payment orders through bank and postal financing for large amounts exceeding or equal to one million Algerian dinars. The following table shows the development of the number of operations and amounts of the instant total settlement system (2016-2023)

Table No. (03): The process of payments by the artes system in Algeria between 2016-2023

Unit: DZD billion

Years	2016	2017	2018	2019	2020	2021	2022	2023
Number of operations	328404	339227	360919	353455	331672	36894	396343	449686
The amount of operations in billion dinars	201692	99896	101621	95759.280	89758.439	71090.145	81929.140	100032.020

Source: (Bank of Algeria)

Through the above table, we note an increase in the number of operations in the total settlement system arts, during the study period 2016-2023, and this is due to the importance of this system in Algerian banks, as well as the effective role in the process of making and facilitating payments between participants in this system, and we also note a continuous decrease in the amount of operations in the total settlement system arts, during the study period 2016-2023, and this is due to the replacement of the transfer through the instant payment system with checks through the intensive payment system.

5.5 Electronic Clearing in Algeria:

Table (04): Developments of transactions using the electronic clearing system

Years	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Number of Payments in Million	21	22.9	25.03	27.01	34.62	48.01	55.15	.776	-
The amount of total payments in billion dinars	176395	18753.75	17016	17,950.76	57547.797	39146.724	20564.799	22955.531	-

Source: Bank of Algeria

Through the above table, we note the increase and growth in the number of electronic clearing operations during the study period, where the highest value was recorded in 2018 with 25.03million payments, and this is due to the continuous and continuous reliance on the electronic clearing system to settle practically many and sophisticated transactions in Algerian banks.

6.5 Payment via electronic payment terminals in Algeria

Table (05): Evolution of electronic payment in Algeria (2016-2024)

Years	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total number of electronic payment stations operating in Algeria	5049	11985	15,397	23762	35192	37561	46263	53191	60635
Total number of payment transactions	65501	122694/1	190898	274624	711777	215052 9	271284 8	39971 65	51772 6
Total Amount of Payment Transactions DZD	444508902. 40	86177536 8.90	133533413 0.7	191699472 1.1	47338200 43.01	151113 249499. 92	193430 56538.1 7	31518 73924 9.37	41804 90494 .89

Source: (Automated Cash Pool)

Through the above table, we note the rise and growth of the total number of electronic payment stations in Algeria, where the highest value in 2020 was recorded at 35,192, and the amount of DZD 47,338,20043.01. This is due to the increase in electronic payment devices in Algeria after Algeria Post joined the automated cash pool and achieved an exchange between bank card and gold.

6. The role of financial technology in promoting digital marketing in Algerian banks.

Banks operating in the banking arena in Algeria display through their official website the various banking operations they carry out for customers, whether they are individuals, institutions or professionals. Each of them has a page dedicated to displaying the advantages and services provided. It also allows uploading various documents through the site to choose the required service, in addition to a set of pages dedicated to introducing electronic banking and its products, as well as Islamic banking. It also publishes various research related to banks and publishes annual financial reports and a social responsibility report. Banks also provide a contact number and a page dedicated to the electronic bank and another to the pre-localization service. It displays the smart service, i.e. the online bank, the smartphone bank and the SMS service.

Through the dz.App application available in the App Store and Google Play, Algerian banks also have accounts on various social media sites (Twitter, Instagram, YouTube and LinkedIn). Algerian banks are currently developing a strategy aimed at strengthening the bank's property rights, improving market shares and continuing to develop information technology and digital transformation. The bank is developing its products, as it launched a range of products, such as

Real estate financing within the framework of the government program for public housing directed to the middle class; digital transformation; opening a digital agency, and allocating spaces in each agency for remote banking transactions; Visa card (prepaid, platinum, gold); Corporate card (Corprate), developing online payment (signing an agreement with the main invoice operators Webmarchant), establishing a new SMS banking system that allows customers to communicate with the bank via SMS; providing merchants with electronic payment devices, launching mobile banking service, launching an electronic document management project (GED) with the bank partner and system provider EVERTEAM with the aim of managing the exploitation of banking data and documents via specialized electronic means.

Conclusion:

Fintech is one of the key factors contributing to the promotion of digital marketing in banks, as it opens new horizons to improve the customer experience and increase the efficiency of banking operations. Through technological innovations, banks are able to effectively analyze data, helping them understand customer needs and provide customized services that match their expectations.

Moreover, fintech allows banks to use targeted marketing strategies based on rigorous analytics, which enhances the effectiveness of marketing campaigns. The use of social media and banking applications also contributes to enhanced interaction with customers, which increases their loyalty and trust in the organization.

In conclusion, integrating fintech into digital marketing strategies is a strategic necessity for banks seeking to compete in the contemporary market. By exploiting this technology, banks can improve their services and reach a wider audience, contributing to sustainable growth

Based on the previous results, the study recommended the following:

- ✓ Banks should invest in the development of digital infrastructure to deliver faster and more efficient financial services.
- ✓ Expanding banking services through artificial intelligence applications to enhance customer experience.
- ✓ Search engine optimization (SEO) to increase the visibility of banks in search results when searching for financial services.
- ✓ Using paid advertising to reach potential customers in a targeted manner

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