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Financial Technologies for Accepting Transactions Using Block Chain Technology and Crypto Currency in Digital Marketing

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Abstract
Recently, block chain technology as an innovative technology has attracted attention and spread. Its potential benefits have led organizations to decide to adopt the technology. Therefore, this research aims for FinTech start-ups to accept financial transactions using block chain technology and crypto currency in digital marketing for the use of users. The present study is a survey and a researcher-made questionnaire. The statistical population of this study includes experts in the field of cryptocurrency and block chain who are scientifically or experimentally familiar with this field. This study shows that FinTech introduces a new paradigm in which information technology drives innovation in the financial industry. As a changing game, FinTech is a destructive innovation that is able to stimulate traditional financial markets. Investors in emerging markets are looking for innovation to gain a foothold.

Keywords
financial transactions, block chain technology, cryptocurrency, customer outlook

1. Introduction
In recent years, Fintech or financial technology has become the most popular term in the world economic markets. The process of development and growth of Fintechs in different societies and countries under the influence of various social, economic, legal, and political factors and obstacles, such as the presence of talented and specialized forces, the amount of investment in ideas, policies, and legislative mechanisms, government programs, Tax laws, capacity and demand of society, gaining social trust, accessibility, penetration of communication technology, quality of infrastructure, cyber security and the like (European Parliament, 2019). The results of some studies show that although the 2008 financial crisis, advances in mobile technology, declining customer confidence in financial institutions, changing business models, and changes in demographic characteristics are among the
factors that give rise to Fintechs, ambiguities Policy and regulatory requirements, growing expectations of Fintechs and problems related to cyber ownership and security, gaining customer trust, creating a steady revenue stream, and competing with industry leaders are some of the major challenges facing the fintech development process (Lee & Deng, 2018). Fintech is an innovative, easy-to-use, user-friendly tool that targets this key feature of success, product and service simplification. Due to the growing public interest in financial issues in the last decade, Fintechs have emerged and have been well received. Global investment in financial technology has more than doubled between 2008 and 2014, from 930 million. The dollar has risen to more than $ 12 billion (Ganne, 2018). Given these developments in the financial and banking systems, almost all major financial institutions are entering this field. These traditional actors intend to facilitate their access to digital services, such as mobile phones and cloud computing, by supporting start-ups in the field. According to global statistics, the annual growth rate of Fintech companies has been 26%, and this rate is still increasing. Many analysts see the future of the banking industry as dependent on the growth of Fintechs; As the willingness to invest in these start-ups grows rapidly, by 2018, $ 8 billion has reportedly been invested in banks alone (Agustin et al., 2020). Today there is increasing competition in many sectors of the financial industry; Especially recently, start-ups and start-ups have entered the market as young entrepreneurs using some innovative ideas (Hofmann, Strewe, & Bosia, 2018). These new players are influencing the two main sides of the banking industry, namely customers and the banking system. Fintech has changed banking business models, reduced banks’ profit margins, and gained significant market share. Hence, the arrival of these new actors is one of the events that has forced the banking industry to think of solutions and react. On the other hand, their emergence has made customers have more options and choices than in the past and experience the subject of digital banking in a more tangible way. In fact, the job of FinTech start-ups is to use technology to provide current financial services to people at a lower cost and use IT-based solutions and new and simple experiences.

In the previous and traditional generations, financial services, supply, and demand of financial services in the money, capital, and insurance markets were provided more physically and with the presence of serviceable and serviceable persons; This issue led to many restrictions and problems in meeting the needs of customers and limited profitability from the perspective of financial intermediaries (Yu, Lin, & Tang, 2018). Proponents of the new approach to financial technology accuse banks and traditional service providers of financial intermediaries that although the development of technology and computers in traditional structures has prevented the extinction of these institutions, these economic structures still have many ceilings and constraints. Moreover, resort to traditional structures in this area is not able to meet the diverse needs of the new era. Fintech, however, is growing rapidly internationally (Ahluwalia, Mahto, & Guerrero, 2020).

Utilizing benefits such as the uniqueness of innovation, loyal and active customers, multiple investors, and the right social network all positively impact the growth of start-up business volumes. For the growth of financial transactions, the uniqueness of innovation and initial capital were more important.
There has also been a positive relationship between employment growth, external consultants’ use, and the amount of investor capital. One of the advantages and capacities of IT-based start-up activities in the country is helping to solve the problems of industries and providing a platform for their growth and development. Because this type of business is associated with ideation and creativity, it can lead to the production of knowledge and tools needed to solve local industry problems in each region. These activities affect employment in two ways; Both as an area of Information and Communication Technology (ICT) creates new jobs and helps employees in other sectors of the economy to achieve new and more diverse jobs. The transportation sector, the finance and banking sector, the tourism sector, and the retail services sector are among the areas in which the capacities of start-up activities can be effective in completing or strengthening their value chain.

In fact, by creating a close relationship between start-up activists in various industrial, agricultural, and service sectors in each region, these businesses can be attracted to the region’s industries and create jobs and prevent elite migration. So FinTech is trying to get into financial systems and challenge traditional financial institutions. Fintech is defined in terms of financial services from the perspective of the National Center for Digital Research in Dublin, Ireland (Gomber, Koch, & Siering, 2017). Fintech is a set of activities and businesses that use modern software power (which is mostly based on the web platform) to provide financial services on a large scale and regardless of geographical borders (Demeyer, 2018). Fintechs can be considered banking and financial technology start-ups that try to cross the usual boundaries of financial intermediation. FinTech with financial technology is a field of financial services that is based on technology. Fintech also applies to start-ups, digital companies, or even financial companies that have long been active in providing financial services using new technologies. FinTech aims to attract customers by offering products and services that include a user-friendly, efficient, transparent, and automated interface (Gomber, Koch, & Siering, 2017). In other words, Fintech refers to a company that seeks to provide technology-backed financial services more efficiently. Due to the young age of this industry, most of the companies operating in this field are start-ups that want to provide financial services with a new approach and reform or sometimes eliminate traditional financial intermediaries such as banks. A new generation of FinTech start-ups, with flexibility, security, efficiency, and more opportunities, are rapidly forming and growing with the aim of penetrating the heart of the financial and banking industry. Many experts and analysts believe that the future of the banking industry depends on the growth of Fintechs, and therefore the willingness to invest in this area has increased significantly. These newcomers work in a variety of fields, which will be covered in later sections.

Blockchain and cryptocurrencies such as Bitcoin, Atrium and LightCoin are innovative Fintech technologies that rapidly attack the financial market and change the global economy’s strength. However, these technologies were less popular among consumers. There is a clear gap that has not yet been addressed and is misunderstood in many operating systems. This study intends to investigate the applicability of blockchain technology by examining the behavioral elements affecting customers’
intentions towards blockchain-based cryptocurrency transactions. Given the complexity of this technology, this study proposes a new integration model: a technology acceptance model with new external variables on blockchain acceptance features such as trust, regulatory support, social influence, risk, and transaction costs to identify impacts. These variables will be conducted on the intention of users, surveys among the study community.

Acceptance of blockchain technology is complex, and the technology acceptance model alone cannot be a comprehensive tool for this. Technology acceptance must be integrated with other important structures, which guide the thinking of the modern blockchain-compatible model. In this study, creating a comprehensive list of factors that determine customer behavior for accepting blockchain is to evaluate the impact of these indicators. The customer can decide whether to make the right interventions or to maximize the effective use of new trading technology.

2. Literature Review

Wen et al. (2021) addressed attacks and countermeasures on block chains with a layered survey. Blockchain is an emerging technology with features of decentralization and transparency and has received in-depth research over the past few years. Using security features such as immutability and decentralization, block chain is used to ensure the security of other applications and services. However, the security issues of your block chain are always easily overlooked. In this article, we conducted a comprehensive literature review on our block chain security issues. From an architectural layering perspective, each layer of blockchain has its own security issues. We systematically review attacks against blockchains based on the basic blockchain framework and conduct an advanced investigation of relevant countermeasures against these attacks. In addition, we conclude our observation and point to the future direction of blockchain security issues. This article aims to provide future insights into the development of blockchain security to researchers and stimulate further efforts on blockchain security issues.

Nanayakkara et al. (2021) discussed how to select a Blockchain platform for developing an organizational system. Blockchain technology was introduced more than a decade ago and has already begun to disrupt traditional business processes. After gaining the knowledge that 1.0 Blockchain gained for cryptocurrency trading and 2.0 Blockchain for financial applications, there is a great demand for 3.0 Blockchain focusing on the use of blockchain for various applications in non-financial industries. There are a number of the licensed and unlicensed blockchain operating systems available in the industry, some of which can be used to develop enterprise systems. As a result, choosing the right blockchain platform for developing an organizational system has become very difficult. This paper presents a method for selecting a suitable blockchain platform to solve industry or business problems in which blockchain offers an acceptable solution. This method consists of four steps. Identify, select, evaluate and validate.

Existing blockchain operating systems are identified by selecting an appropriate platform using a
multi-criteria decision-making method such as the simple multi-feature evaluation (SMART) technique. Subsequently, the selected system is evaluated in detail according to the system architecture, libraries, tools, domain-specific programs, and analysis of the capabilities of the selected blockchain platform. The proposed method has been validated through the development of a blockchain-based organizational solution. Any stakeholder can use the process protocol introduced in this study to select the appropriate blockchain platform for the development of the blockchain program regardless of its scale.

Gomathi (2021) examined the applications and security issues of blockchain technology in the commercial sector. A measured structure for storing valuable data types in a way that is impossible to forge is called a blockchain. Basically, some blocks are connected as a chain that contains evidence of information. This blockchain first seals documents to eliminate past history. The most important thing is that no further changes can be made as soon as the data is recorded. Each block contains a hash, information, and a previously available hash block. The data stored inside the block depends on the type of blockchain. It recognizes a block and each of its materials and is consistently unique, like the iris or fingerprint. When the block is created, the hash is specified. If something in the block changes, the hash will change. Along these lines, hashes are used to identify settings in squares. The blockchain is created with the previous hash block. The main block is known as the starting block, which does not hold the location of the previous block. Verification is an unusual method in blockchain that is used to modify goalkeepers who change messages and hashes. The main purpose of this chapter is to introduce the concept of blockchain, its current applications in the business sector, and the various security threats and issues of blockchain technology. Blockchain is an emerging technology that promises uncontrollable trust by allowing a secure and reliable system for many areas.

Ali, Ally and Dwivedi (2020) addressed the state of blockchain technology in the financial services sector. Modern trends in the digitalization of business practices have completely transformed entire businesses and even a number of industries. Blockchain technology is believed to be the latest development in industries such as finance, where trust is paramount. Blockchain technology is a decentralized and encrypted security system that enables the creation of new digital services and operating systems through this emerging technology. This study provides a systematic review of scholarly articles on blockchain technology in finance. We started with 227 articles and subsequently filtered the list to 87 articles. Hence, we present a classification framework that has three dimensions: financial benefits, challenges, and blockchain-enabled operations. This research identifies the implications for future research and performance in the blockchain model.

McCallig, Robb and Rohde (2019) developed fidelity to represent financial accounting information using multilateral security, network analysis, and blockchain. This paper aims to develop an accounting information system design that will increase the fidelity of financial reporting representations. One of the functions of financial reporting is to collect and report the private data of the business unit. This article demonstrates that recognizing that some of the company’s private data have already been shared.
with others allows for multifaceted security practices in the reporting and auditing processes. We claim that both the identity of the entity as a place in the network is modeled using both public-key cryptography and network analysis. We also develop accounting records techniques to balance public access and privacy using blockchain. Taken together, these three design ideas can increase the theatrical loyalty of financial reporting systems because they use shared data from independent entities, a transparent system, and unchanging open-access storage space. Loyal representation increases because auditors can use the information in this system to support their audit opinion or that of stakeholders who need reliable information about the entity.

Yu, Lin and Tang (2018) introduced blockchain and its application in financial accounting. Blockchain has been used as a decentralized head office technology with features of transparency, security, stability, and immutability in many areas such as cryptocurrency, stock financing, and corporate governance. However, blockchain technology is in the testing phase and has several problems to solve, including limited data processing capacity, information confidentiality, and monitoring issues. This study examines the potential application of blockchain technology in financial accounting and its potential effects. We state that public blockchain can be used in the short term as a platform for voluntary disclosure of information by companies. In the long run, blockchain can effectively reduce profit disclosure and management errors, increase the quality of accounting information, and reduce information asymmetry. We will also discuss the potential effects of blockchain on independent auditors and financial accountants.

Joe (2019) addressed the applications of blockchain in various fields. Blockchain, originally invented as a mechanism for providing cryptocurrencies without bitcoin trust, has since deviated from its original purpose as a growing number of industries and shareholders see the technology as an attractive alternative. To solve current business problems as well as overlap in mature businesses. This article provides a systematic overview of blockchain technology articles and seeks to increase its popularity compared to similar technologies (such as cryptocurrency and bitcoin). The present paper aims to identify the current state of blockchain activity in the articles and identify the main aspects of the study and the practical areas for which blockchain can provide a valuable solution. This article concludes that the unique features of the blockchain (such as confidentiality, security, anonymity, decentralization, and immutability) provide valuable benefits for a variety of titles and contexts. This article concludes that the study of the use of blockchain, with only limited studies in this area, is in its infancy (such as the Internet of Things, energy, finance, health care, and government) as well as the government, which can Extremely benefit from its implementation.

Lee and Shin (2018) examine the challenges of fintech start-ups and point out six key challenges that fintech start-ups and traditional financial institutions face in the age of destructive innovation. These challenges include customer management, rules, technology integration, security and privacy, and risk management challenges.

Saal, Starnes and Rehermann (2017) study introduces the opportunities and benefits of Fintech
companies in emerging markets such as China, India, and Kenya and points out that financial innovations such as mobile money in these countries where traditional financial institutions have no committed service to move Having no money anywhere can be very effective. Fintech services in these countries have significantly improved access to low-income customers and reduced costs for banks.

Capgemini and ancillary services compared to its traditional competitors, namely banks and financial and credit institutions, from the perspective of business owners. The results show that the most important competitive advantages of Fintech include greater agility in the absence of legal barriers, improved customer experience, new product development, innovation in new services and products, reduced costs, and improved data management.

Thwaits (2017) study aimed at identifying barriers and factors for effective cooperation of Fintech start-ups with banks in South Africa and using the analysis of interviews with bank executives and entrepreneurs of Fintech start-ups, shows that the factors Such as entrepreneurial personality traits, risk appetite, networking, productivity effect, cost reduction effect, efficiency effect, alternative effect as empowering factors and barriers such as lack of capital, the inexperience of founders, lack of expertise outside the core of cooperation Fintechs are effective with banks.

Schueffel (2016), in a comprehensive study, examined the definitions of more than 233 scientific articles about Fintech and defined Fintech as an innovative application of technology in providing financial services. According to Mackenzie (2015), Fintechs are new players in the financial services sector who rely on technological innovation to challenge competitive advantage, authority, governance, and monopoly of financial institutions, especially traditional banks. Fintechs are not banks. But they do offer a lot of banking services. They provide various services such as one-on-one payments, crowdfunding, payments with various conditions, and dozens of other financial services using mobile, internet, and social networks to make the customer feel more comfortable, and it also pays less (Bhandari, 2020). PayPal, for example, which is one of the largest fintechs in the world, was formed with a simple idea of payment based on email and is now larger and more powerful than many banks in the world. Fintechs have emerged to cover inefficiencies in banking processes by providing better customer service. For example, by providing a crowdfunding platform, the start-up Kickstarter has provided conditions for idea owners to raise capital to start their projects. An area that traditional institutions completely ignored. In Kenya, start-up M-Pesa has also been able to bring more than 23 million Kenyans into the financial network by enabling mobile financial transactions, many of whom previously did not have access to any financial services (Nicoletti, 2017).

According to Chuen and Teo (2015) research, for the success of FinTech business and its sustainability, it is necessary to observe the five characteristics of low-profit margins of low assets (scalable), scalable, innovative, and easy compatibility, which are recommended to companies in this field consider. Low-profit margins are one of the key features of Fintech’s successful business. In today’s world, where Internet access is largely free, users are less likely to pay for services such as watching videos or playing online games. The high network effects shown in such technologies require the definition of the
initial phase for critical expansion aggregation. This is a costly process that requires good marketing. Consumers (subscribers) are more inclined to use services that many people use. From the service provider’s point of view, the need to create a critical point from the beginning of the business is evident; This means that over a period of time, the service provider has very low or even zero revenue from its operating activities (usually by offering the product for free), and then symbolically grows from several sources of revenue, such as advertising and Sells complementary products or services; So over a long period of time, the initial profit margin will be very low, but over time, the revenue from various sources will increase. Companies also constantly monitor this issue in the form of various reports and express the changes and economic opportunities of the financial technology subdivisions.

3. Methods
This research is based on descriptive purpose, applied result, and data in a qualitative manner and in terms of how to collect data descriptive-correlation—the statistical community of university professors and managers of international companies working in the field of technology finance. In this study, we seek to investigate the relationship between variables or model construction, so structural equation modeling is usually a combination of measurement models and structural models. In the analysis of the present study, there is a small dimension that statistical calculations are specific and a qualitative dimension that is the analysis, reasoning, and inferences that are made from the results obtained from statistical calculations in order to evaluate the results of observations in the selected sample generalized to the target community. In the present study, the information obtained from the questionnaire is extracted, and then all the information is analyzed using SPSS.24 and Smart-PLS statistical software in the inferential statistics section. For data analysis, statistical hypothesis tests, analysis of variance, correlation analysis and regression according to the characteristics of data distribution (normal or non-normal distribution) are used. All stages of data analysis using structural equation modeling and Smart-PLS statistical software are used performed.

4. Research Findings
According to the data analysis algorithm in Smart-PLS software, after examining the fit of measurement models, it is time to fit the structural model and evaluate its criteria. Unlike the measurement model section, we do not deal with explicit questions (variables) and only the hidden endogenous variables (dependent variables) are examined in the structural model section. In the present research model, trust, attitude, perceived usefulness, ease of use, and behavioral commitment are dependent.
Figure 1. Goodness Indicators of Structural Model Fit

| Name                | $R^2$ | $Q^2$ |
|---------------------|-------|-------|
| Trust               | 0.601 | 0.271 |
| Attitude            | 0.616 | 0.155 |
| Perceived usefulness| 0.699 | 0.305 |
| Perceived ease of use| 0.478 | 0.222 |
| Behavioral commitment| 0.565 | 0.437 |

The $R^2$ index measures the effect that an exogenous variable has on an endogenous variable. The value of $R^2$ is calculated only for dependent or endogenous variables of the model, and this value is zero for other variables. In other words, $R^2$ shows the ability of independent variables to predict the dependent variable. Chin (1998) introduces three values of 0.19, 0.33, and 0.67 as criteria for weak, medium, and strong $R^2$ values. It can be seen that $R$ was more than 0.33 for trust, attitude, perceived ease of use, and behavioral commitment, and more than 0.67 for perceived utility construct, which indicates the predictive power of independent variables in predicting trust, attitude, perceived ease of use, and moderate behavioral commitment is strong in predicting perceived usefulness. The criterion of CV Red, which is also called the validity index of excess or redundancy, was introduced by Stone and Geisser and determines the predictive power of the model, and if $Q^2$ is more than 0.02 for an endogenous structure, its predictive power a weak structure, if it is more than 0.15, has a medium predictive power of that structure, and if it is larger than 0.35, it indicates a strong predictive power of the related exogenous structure.

Figure 2. CV Red Criteria

| Name                | CR coefficient |
|---------------------|----------------|
| Trust               | 0.696          |
| Exchange fee        | 0.698          |
| Attitude            | 0.707          |
| Social influence    | 0.559          |
| Regulation support  | 0.001          |
| Risk                | 0.759          |
| Perceived usefulness| 0.568          |
| Perceived ease of use| 0.654         |
| Behavioral commitment| 0.783        |

The $Q^2$ criterion for the dependent variables of trust, attitude, perceived usefulness, and perceived ease of use is reported to be more than 0.15, and for behavioral commitment more than 0.33,
respectively, which have adopted an appropriate value and can be power Medium and high predictors of dependent variables were confirmed. The GOF criterion is used to determine the overall quality of the model. This criterion is related to the general part of structural equation models, which means that by this criterion, the researcher can control the general part fit after examining the fit of the measurement part and the structural part of his general research model. The GOF value is calculated using the following formula.

$$\text{GoF} = \sqrt{\text{communality} \times R^2}$$

In which the communality criterion, which measures the degree of variability of indices by the relevant structure, is obtained through the average of the second-order values of the impact of the index and the related structure, which is the factor load. If the value of GOF index is greater than or equal to 0.01 indicates that the quality of the measurement model is poor, GOF index greater than or equal to 0.25 indicates that the model is of moderate quality and if the value of this index is greater than or equal to 0.35 indicates that the model has a strong quality.

The value of GOF index for the research model is estimated to be 0.63, which is greater than 0.35 and indicates the strong quality of the overall model, and it can be said that the structural equation model has a strong quality. According to the results, the quality of the measurement model, structural model, and general model are confirmed, and by fitting the general model, we will examine the hypotheses.

4.1 Results of the Hypotheses Tests

In this section, using the results of fitting the model, the research hypotheses are analyzed separately.

1) Attitude has a significant effect on the behavioral intent of cryptocurrency transactions supported by blockchain technology. The results show that the test statistic related to the behavioral intention attitude path is estimated to be 42.546, which is greater than 1.96, the coefficient of the behavioral intent attitude coefficient is significant, and the coefficient of this path is estimated to be 0.751, which is a value. It is positive and shows that the attitude has a significant and positive effect on the behavioral intention of cryptocurrency trading, which is supported by blockchain technology, and the first hypothesis is confirmed (standard error equal to 0.018).

2) Perceived usefulness has a significant impact on attitudes toward cryptocurrency transactions backed by blockchain technology. The results show that the test statistic related to the perceived usefulness path to the attitude is estimated to be 13.740, which is greater than 1.96, the significance of the perceived usefulness path to the confirmed attitude is significant, and the coefficient of this path is estimated to be 0.560. Which is somewhat positive and shows that perceived usefulness has a significant and positive effect on attitudes towards cryptocurrency transactions supported by blockchain technology (standard error equal to 0.041).

3) Perceived ease of use has a significant impact on attitudes toward cryptocurrency transactions supported by blockchain technology. The results show that the test statistic related to the perceived ease of use approach to attitude is estimated to be 2.292, which is greater than 1.96, the significance of the
perceived ease of use path to the approved attitude is significant, and the coefficient of this path is estimated to be 0.087. Which is somewhat positive and indicates that perceived ease of use has a significant and positive effect on attitudes toward cryptocurrency transactions backed by blockchain technology (standard error equal to 0.038).

4) Perceived ease of use significantly impacts the perceived usefulness of cryptocurrency transactions backed by blockchain technology. The results show that the test statistics related to the perceived ease of use path to the perceived usefulness is estimated to be 11,512, which is greater than 1.96, the significance of the perceived ease of use coefficient to the confirmed perceived usefulness, as well as the coefficient of this path. It is estimated to be 0.396, which is a positive value and indicates that perceived ease of use has a significant and positive effect on perceived usefulness over cryptocurrency transactions backed by blockchain technology (standard error equal to 0.034).

5) Trust has a significant impact on attitudes towards cryptocurrency trading backed by blockchain technology. The results show that the test statistic related to the confidence-to-attitude path is estimated to be 5.710, which is greater than 1.96. And shows that trust has a significant and positive effect on attitudes toward cryptocurrency trading supported by blockchain technology (standard error equal to 0.034).

6) Trust has a significant impact on understanding the ease of use of cryptocurrency trading backed by blockchain technology. The results show that the test statistic for the ease of use trust path is estimated to be 14,028, which is greater than 1.96. Which is somewhat positive and shows that trust has a significant and positive effect on understanding the ease of use of cryptocurrency transactions supported by blockchain technology (standard error equal to 0.030).

7) Regulatory support has a significant impact on trust in cryptocurrency transactions backed by blockchain technology. The results show that the test statistic related to the regulatory support path to trust is estimated to be 9.088, which is greater than 1.96, the significance of the regulatory support path to the approved trust is significant, and the coefficient of this path is estimated to be 0.364. Which is somewhat positive and shows that regulatory support has a significant and positive effect on trust in cryptocurrency transactions supported by blockchain technology (standard error equal to 0.040).

8) Risk has a significant impact on trust in cryptocurrency transactions backed by blockchain technology. The results show that the test statistic related to the risk path to trust is estimated to be 4.504, which is greater than 1.96, the significance of the risk path to trust is confirmed, and the coefficient of this path is estimated to be -0.123, which is a negative value. And shows that risk has a significant and inverse effect on trust in cryptocurrency transactions supported by blockchain technology (standard error equal to 0.027).

9) Social influence has a significant impact on trust in cryptocurrency transactions backed by blockchain technology. The results show that the test statistic related to the path of social influence to trust is estimated to be 10.728, which is greater than 1.96, the significance of the path to social influence to the trust is confirmed, and the coefficient of this path is estimated to be 0.383, which is a
value. It is positive and shows that social influence has a significant and positive effect on trust in cryptocurrency transactions supported by blockchain technology (standard error equal to 0.036).

10) Social influence has a significant impact on the perceived usefulness of cryptocurrency transactions backed by blockchain technology. The results show that the test statistic related to the path of social influence to the perceived usefulness is estimated to be 14.439, which is greater than 1.96, the significance of the coefficient of the path of social influence to the perceived usefulness is confirmed, and the coefficient of this path is estimated to be 0.494. Which is somewhat positive and shows that social influence has a significant and positive effect on the perceived usefulness of cryptocurrency transactions supported by blockchain technology (standard error equal to 0.034).

11) Exchange costs have a significant impact on the ease of use of cryptocurrency transactions backed by blockchain technology. The results show that the test statistics related to the easy-to-use transaction cost path are estimated to be 12) 436, which is greater than 1.96. 363, which is a positive value and shows that transaction costs have a significant and positive effect on the ease of use of cryptocurrency transactions by technology blockchains are supported (standard error equal to 0.029).

Due to the significance and establishment of all direct relationships of variables in this section, the indirect effects of variables and mediating effects are examined. In statistical tests of mediating variables, two questions must be answered: a) What is the indirect effect of X through M on Y? B) Does the variable M (mediator variable) have a mediating role? In other words, is the indirect effect of X (independent variable) through M on Y (dependent variable) significant? To answer the first question, namely the indirect effect of the independent variable on the dependent variable, we can use the Sobel (1982) method. In this method, the value of the indirect effect is calculated by the following formula, in which the effect of a is the independent variable on the mediator and b is the effect of the mediating variable on the dependent.

\[ B_{\text{indirect}} = ab \]

In addition to calculating the amount of indirect effect, the significance of the indirect effect can also be calculated using tests such as Sobel, Baron and Kenny (1986). It is worth mentioning that all softwares calculate the significance of direct effects between variables and present them in their outputs. However, they do not provide the significance of the indirect effect and sometimes provide the indirect effect based on the formula mentioned above, so the significance of the indirect effect Direct must be calculated manually, which is given in the following formula based on the Sobel method.

\[ t\text{-value} = \frac{ab}{\text{SQRT}(b^2s_e^2 + a^2s_b^2 - s_x^2s_y^2)} \]

According to the explanations provided above, the mediating variables are examined below.

According to the obtained results, the indirect effect of social influence on perceived usefulness attitude is significant considering that the t-value value is outside the range of 1.96, and it can be said that the indirect effect of social influence on attitude is significant through perceived usefulness, in other words, social influence improves attitudes toward cryptocurrency transactions by increasing perceived usefulness in cryptocurrency transactions supported by blockchain technology.
According to the obtained results, the indirect effect of social influence trust attitude is significant considering that the t-value value is outside the range of 1.96, and it can be said that the indirect effect of social influence on attitude through Trust is significant, in other words, social influence improves attitudes toward cryptocurrency transactions by increasing trust in cryptocurrency transactions supported by blockchain technology.

According to the obtained results, the significance of the indirect effect of exchange cost perceived ease of use attitude Given that the value of t-value is outside the range of 1.96 is significant and it can be said that the indirect effect of exchange cost Attitudes through perceived ease of use are significant, in other words, transaction costs improve attitudes toward cryptocurrency transactions through increased perceived ease of use of cryptocurrency transactions supported by blockchain technology.

According to the obtained results, the indirect effect of regulation support trust attitude is significant considering that the t-value value is outside the range of 1.96, and it can be said that the indirect effect of regulation support on attitude through Trust is significant, in other words, regulatory support improves attitudes toward cryptocurrency transactions by increasing trust in cryptocurrency transactions backed by blockchain technology.

According to the obtained results, the indirect effect of risk support trust attitude is significant considering that the t-value value is outside the range of 1.96, and it can be said that the indirect effect of risk on attitude through trust; in other words, risk worsens attitudes toward cryptocurrency trading by reducing trust in cryptocurrency trading backed by blockchain technology.

According to the obtained results, the significance of the indirect effect of perceived usefulness support attitude Behavioral intention Considering that the value of t-value outside the range of 1.96 is significant and it can be said that the indirect effect of perceived usefulness on intention Behavior attitude is meaningful, in other words, the perceived usefulness is improved by the attitude towards cryptocurrency trading supported by blockchain technology, which improves the behavioral intention towards cryptocurrency trading.

According to the obtained results, the indirect effect of perceived ease of use is significant attitude Behavioral intention is significant considering that the value of t-value is outside the range of 1.96, and it can be said that the indirect effect of ease of use is perceived. Behavioral intention is significant through attitude, in other words, the ease of use perceived by improving the attitude towards cryptocurrency trading supported by blockchain technology improves behavioral intention towards cryptocurrency trading.

According to the obtained results, the indirect effect of trust attitude behavioral intention is significant considering that the t-value value is outside the range of 1.96 and it can be said that the indirect effect of trust on behavioral intention through attitude In other words, trust improves the behavioral intent of cryptocurrency trading by improving the attitude towards cryptocurrency trading supported by blockchain technology.
According to the obtained results, the significance of the indirect effect of perceived ease of use on perceived usefulness attitude is significant considering that the value of t-value is outside the range of 1.96, and it can be said that the indirect effect of ease of use is perceived. Attitude through perceived utility is significant, in other words, ease of use perceived by improving perceived utility in cryptocurrency transactions supported by blockchain technology improves attitudes toward cryptocurrency trading.

According to the obtained results, the indirect effect of trust on perceived ease of use attitude is significant considering that the t-value value is outside the range of 1.96 and it can be said that the indirect effect of trust on attitude from Perceived ease of use is significant, in other words, trust improves attitudes toward cryptocurrency trading by improving perceived ease of use of cryptocurrency transactions supported by blockchain technology.

5. Conclusion

Due to the many benefits that financial technology has provided to their customers, they have succeeded in attracting a significant share of customers in the banking industry, especially the younger generation. In contrast, there are still customers who are reluctant or reluctant to start new businesses. There are two main reasons why users do not use financial technologies, are not aware of the existence of financial technologies, and do not need to use them; Of course, issues such as ignorance of how they work and lack of confidence in them are other reasons that customers have raised.

The development of the financial technology industry is highly dependent on future legislative environments and technological changes. For example, online legitimacy and authentication are important. If a safe approach is provided that is both easy to use and cost-effective, and that includes requirements for detecting fraud and money laundering, it will clearly have a positive impact on the future development of financial technologies in various sectors. At the same time, the use and expansion of financial technology services depend not only on the technical and regulatory framework but also on the value that customers can use their services. Apart from the speed and efficiency of these services, the technological aspect of which is obvious, they will be dissatisfied if the investors’ investment does not have a positive average return.

Undoubtedly, the development of financial technologies has many benefits for different groups of society. However, the important issue is that the widespread use of financial technologies requires the expansion of legal and executive frameworks at the government and financial markets level. Otherwise, instead of enjoying the benefits available, there may be a business opportunity for some profiteers. Therefore, after expanding the infrastructure for monitoring these new technologies, regulators should provide the basis for these new financial intermediaries to respond to those financial needs of customers that traditional banks and intermediaries have not met. According to Chuen and Teo (2015) research, for the success of financial technology business and its sustainability, it is necessary to observe the five characteristics of low-profit margins of low assets (scalable), scalable, innovative, and...
easy adaptability, which are recommended to companies in this field and consider.

Low-profit margins are one of the key features of a successful financial technology business. In today’s world, where Internet access is largely free, users are less likely to pay for services such as watching videos or playing online games. The high network effects shown in such technologies require the definition of the initial phase for critical expansion aggregation. This is a costly process that requires good marketing. Consumers (subscribers) are more likely to use services that many people use. From the service provider’s point of view, the need to create a critical point from the beginning of the business is evident; The service provider has very low or even zero revenue from its operating activities (usually by offering the product for free), and then symbolically generates its growth from several sources of revenue, such as advertising and selling complementary products or services. So over a long period of time, the initial profit margin will be very low, but the revenue from various sources will increase over time.

References

Agustin, F., Aini, Q., Khoirunisa, A., & Nabila, E. A. (2020). Utilization of Blockchain Technology for Management E-Certificate Open Journal System. *Aptisi Transactions on Management (ATM)*, 4(2), 133-138. https://doi.org/10.33050/atm.v4i2.1293

Ahlulwalia, S., Mahto, R. V., & Guerrero, M. (2020). Blockchain technology and startup financing: A transaction cost economics perspective. *Technological Forecasting and Social Change*, 151, 119854. https://doi.org/10.1016/j.techfore.2019.119854

Ali, O., Ally, M., & Dwivedi, Y. (2020). The state of play of block chain technology in the financial services sector: A systematic literature review. *International Journal of Information Management*, 54, 102199. https://doi.org/10.1016/j.ijinfomgt.2020.102199

Bhandari, V. (2021). FinTech: A Study of Enablers, Opportunities, and Challenges in the Banking and Financial Services Sector. In *Research Anthology on Concepts, Applications, and Challenges of FinTech* (pp. 24-31). IGI Global. https://doi.org/10.4018/978-1-7998-8546-7.ch002

Capgemini & EFma Company (2018). *World Fintech Report 2018, Capgemini in collaboration with Efma.*

Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research*, 295(2), 295-336.

Chuen, D. L. K., & Teo, E. G. (2015). Emergence of FinTech and the LASIC principles. *Journal of Financial Perspectives*, 3(3), 24-36.

Demeyer, M. (2018). *Blockchain technology and smart contracts from a financial law perspective* (Unpublished doctoral dissertation). Ghent University.

Dorfleitner, G., Hornuf, L., Schmitt, M., & Weber, M. (2017). The fintech market in Germany. In *FinTech in Germany* (pp. 13-46). Springer, Cham. https://doi.org/10.1007/978-3-319-54666-7_4

European Parliament (2019). *Fintech (Financial Technology) and the European Union.*
Ganne, E. (2018). Can Blockchain revolutionize international trade?. Geneva: World Trade Organization.

Geisser, S. (1975). The predictive sample reuse method with applications. *Journal of the American Statistical Association, 70*(350), 320-328. https://doi.org/10.1080/01621459.1975.10479865

Gomathi, S., Soni, M., Dhiman, G., Govindaraj, R., & Kumar, P. (2021). A survey on applications and security issues of blockchain technology in business sectors. Materials Today: Proceedings. https://doi.org/10.1016/j.matpr.2021.02.088

Gomber, P., Koch, J. A., & Siering, M. (2017). Digital Finance and FinTech: current research and future research directions. *Journal of Business Economics, 87*(5), 537-580. https://doi.org/10.1007/s11573-017-0852-x

Hofmann, E., Strewe, U. M., & Bosia, N. (2018). Discussion—How does the full potential of blockchain technology in supply chain finance look like?. In *Supply Chain Finance and Blockchain Technology* (pp. 77-87). Springer, Cham. https://doi.org/10.1007/978-3-319-62371-9_6

Jagtiani, J., & John, K. (2018). Fintech: The impact on consumers and regulatory responses. https://doi.org/10.1016/j.jeonbus.2018.11.002

Lee, D. K. C., & Teo, E. G. (2015). Emergence of FinTech and the LASIC Principles. *Journal of Financial Perspectives, 3*(3). https://doi.org/10.2139/ssrn.2668049

Lee, D., & Deng, R. H. (2018). *Handbook of blockchain, digital finance, and inclusion: Cryptocurrency, FinTech, InsurTech, and regulation.*

Lee, I., & Shin, Y. J. (2018). Fintech: Ecosystem, business models, investment decisions, and challenges. *Business horizons, 61*(1), 35-46. https://doi.org/10.1016/j.bushor.2017.09.003

Mackenzie, A. (2015). The fintech revolution. *London Business School Review, 26*(3), 50-53. https://doi.org/10.1111/2057-1615.12059

McCallig, J., Robb, A., & Rohde, F. (2019). Establishing the representational faithfulness of financial accounting information using multiparty security, network analysis and a blockchain. *International Journal of Accounting Information Systems, 33*, 47-58. https://doi.org/10.1016/j.accinf.2019.03.004

Nanayakkara, S., Rodrigo, M. N. N., Perera, S., Weerasuriya, G. T., & Hijazi, A. A. (2021). A methodology for selection of a Blockchain platform to develop an enterprise system. *Journal of Industrial Information Integration, 23*, 100215. https://doi.org/10.1016/j.jii.2021.100215

Nicoletti, B. (2017). *The Future of FinTech. Integrating Finance and Technology in Financial Services.* London: Palgrave Macmillan.

Saal, M., Starnes, S., & Rehermann, T. (2017). *Digital Financial Services.* https://doi.org/10.1007/978-3-319-51415-4_2

Schueffel, P. (2016). Taming the beast: A scientific definition of fintech. *Journal of Innovation Management, 4*(4), 32-54. https://doi.org/10.24840/2183-0606_004.004_0004
Shahbandi, M., & Farrokhshad, H. (2019). *Organizational Performance Measurement Based on Competitive Intelligence and Strategic Flexibility in the Food Industry: Kalleh Dairy Company in Iran Case Study.*

Shahbandi, M., Farrokhshad, H., & Shahbandi, M. (2020). *Original Paper Relationship between Customer Satisfaction and Customer Attitude and Loyalty According to the Mediating Variable of Customer Trust* (Case Study: Matin Abad Eco Camp). https://doi.org/10.22158/ibes.v3n2p1

Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. *Sociological methodology, 13,* 290-312. https://doi.org/10.2307/270723

Stone, M. (1974). Cross-validatory choice and assessment of statistical predictions. *Journal of the royal statistical society: Series B (Methodological),* 36(2), 111-133. https://doi.org/10.1111/j.2517-6161.1974.tb00994.x

Thwaits, C. (2017). *The barriers and enablers to effective fintech start-up collaboration with South African Banks* (Doctoral dissertation, University of Pretoria).

Wen, Y., Lu, F., Liu, Y., & Huang, X. (2021). Attacks and countermeasures on blockchains: A survey from layering perspective. *Computer Networks,* 191, 107978. https://doi.org/10.1016/j.comnet.2021.107978

Yu, T., Lin, Z., & Tang, Q. (2018). Blockchain: the introduction and its application in financial accounting. *Journal of Corporate Accounting & Finance,* 29(4), 37-47. https://doi.org/10.1002/jcaf.22365