

Assessing the Impact of Blockchain Technology on Guests Behavior in Five-Star Hotels Using UFAUT Model

تقييم أثر تقنية سلاسل الكتل على سلوك النزلاء في الفنادق خمس نجوم باستخدام نموذج UFAUT

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Abstract

الملخص

Block chains are a real revolution in the world of modern technology, which will have many benefits in facilitating various economic transactions, and due to the many benefits of this technology in various economic fields, it has imposed its presence at the international level, as many international institutions such as the Commercial International Bank - Conference The international economy, as well as many countries of the world, held conferences to discuss ways to benefit from this technology, and this technology was presented at the third conference of world youth hosted by Egypt, and hotels are not far from applying this technology in many countries of the world, so this study aimed to identify the extent of acceptance Hotel customers and their expectations towards the facilities that this technology will provide if it is applied in Egyptian hotels and the impact of these facilities and benefits on the behavioral intention to use the technology of block chains, depending on the unified theory of acceptance and use of technology (UFAUT), and the study adopted the descriptive analytical approach and the explanatory approach, and to obtain Data to achieve the objective of the study. Survey forms were distributed to a random sample of five-star hotel customers in (Alexandria, Cairo and Sharm El-Sheikh), 400 forms. The study relied on the spssv26 program to analyze the data. The study concluded that there is a statistically significant effect between the expected effort and the expected benefits, social impact, available facilities, and the behavioral intention of guests.

سلاسل الكتل هي ثورة حقيقية في عالم التكنولوجيا الحديث، والتي سيكون لها العديد من الفوائد في تسهيل المعاملات الاقتصادية المختلفة، ونظرا لمال هذه التقنية من فوائد عديدة في مجالات اقتصادية مختلفة فقد فرضت وجودها على الصعيد الدولي حيث قامت العديد من المؤسسات الدولية مثل البنك التجاري الدولي - مؤتمر الاقتصاد الدولي وكذلك العديد من دول العالم بعقد مؤتمرات لبحث سبل الاستفادة من هذه التقنية، وقد تم طرح هذه التقنية بالمؤتمر الثالث لشباب العالم الذي استضافته مصر وليست الفنادق بعيدة عن تطبيق هذه التقنية في العديد من دول العالم، لذا هدفت هذه الدراسة الى التعرف على مدى قبول عملاء الفنادق وتوقعاتهم نحو التسهيلات التي سوف تقدمها هذه التقنية اذا تم تطبيقها في الفنادق المصرية واثار هذه التسهيلات والفوائد على النية السلوكية نحو استخدام تقنية سلاسل الكتل، بالاعتماد على النظرية الموحدة لقبول واستخدام التكنولوجيا (UFAUT)، وقد اعتمدت الدراسة المنهج الوصفي التحليلي والمنهج التفسيري، وللحصول على بيانات تحقق هدف الدراسة تم توزيع استمارات استقصاء على عينة عشوائية من عملاء الفنادق خمس نجوم بكل من (الاسكندرية والقاهرة وشم الشيخ)، عدد ٤٠٠ استمارة ، واعتمدت الدراسة في تحليل البيانات على برنامج spssv26 ، وقد توصلت الدراسة الى وجود أثر ذو دلالة احصائية بين الجهد المتوقع والفوائد المتوقعه والتاثير الاجتماعي والتيسيرات المتاحة والنية السلوكية للعملاء، وتوصي الدراسة بضرورة تبني الفنادق المصرية لتكنولوجيا سلاسل الكتل.

Keywords: Block Chains; Guests Behavior; Five-Star Hotels; UFAUT.

الكلمات الدالة: سلاسل الكتل؛ سلوك النزلاء؛ الفنادق خمس نجوم؛ النظرية الموحدة لقبول واستخدام التكنولوجيا.

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Introduction

Blockchain is a technology that has been enabled by the global distribution of computing capacity. Simply put, a blockchain is a digital ledger in which transactions, for Bitcoin and cryptocurrency, are time stamped and recorded chronologically and publicly. It is the public aspect of this exchange that is the most interesting. Any person in the world can now download the code and start 'mining' Bitcoin or participating in new network ideas built on the Ethereum platform (UN, 2018). Blockchain, mostly known as the technology that runs the Bitcoin cryptocurrency, is a public ledger system maintaining the integrity of transaction data (Nakamoto, 2012, Swan, 2015).

Bitcoin is still the most widely used application using Blockchain technology to this day. Bitcoin is a decentralized digital currency payment system that consists of a public ledger of transactions called Blockchain (Coinmarketcap, 2016).

The primary advantage of Bitcoin is the maintainability of the currency's value without the control of any governmental administration. The number of transfers and users in the Bitcoin network is constantly increasing. In addition, remittances in traditional currencies, e.g., KRW, EUR, and USD, occur constantly in currency exchange markets. Bitcoin has therefore gained the attention of various communities and is currently the most successful digital currency using Blockchain technology (Kondor & Pósfai & Csabai & Vattay, 2014).

1-Literature Review

An overview of Blockchain technology

Block chain is a database that includes all the exchanges that take place between all clients since its inception, and all the blocks in it are encrypted, as any process can be added at a time when it is impossible to delete it or change its content, which gives the property of transparency (Pignel, 2019). Blockchain technology is an open and distributed book, able to record transactions between two parties in an efficient, proven and permanent manner (Sfetcu, 2019). Blockchain technology has achieved a wide range of applications in the financial and non-financial worlds (Shehab, 2018). Block chains also allow for the creation of a decentralized environment, where transactions and data that have been validated are not under the control of any third-party organization, and any transaction is recorded in the ledger in a verifiable manner, in a secure, transparent and permanent manner. The characteristics that characterize block chains are resistance to censorship, stability, and global ease of use, and modifications cannot be made to the operations of this technology, and the process of adding a block-to-block chains contains thousands of previous transactions (carmen, 2018). There are economists who prefer to say that the technology of block chains is a participatory distribution system rather than considering it a decentralized system, and the reason is that the term decentralization may not completely negate the lack of centralization, but rather the transition from total centralization to partial centralization, which is inconsistent with the work system of block chains, Which is the distributed ledger technology, which is responsible for addressing the problems of checking the integrity of operations with confidence and without reference to a central system (Quiniou, 2019).

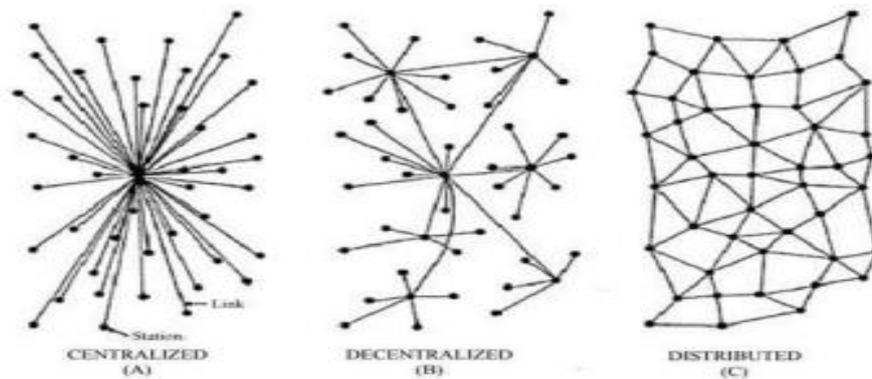
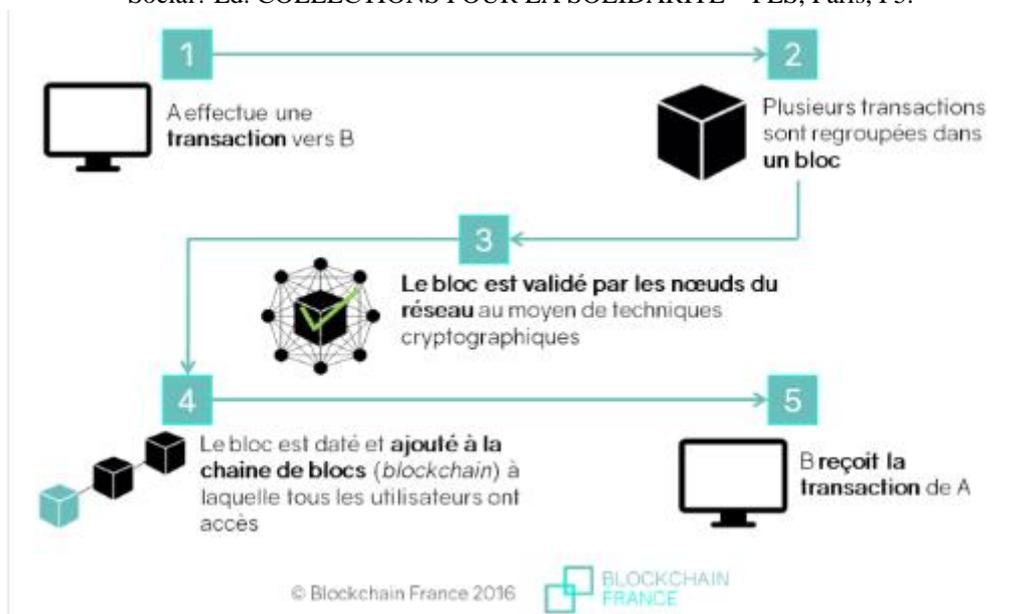


Fig. 1 Distribution systems Source: Matthieu Quiniou, Blockchain: L'avènement de la désintermédiation, Ed. ISTE Group, London, 2019, P17.

With the increasing importance of these distributed records with the emergence of many cryptocurrencies, there is no longer a need for a trusted central user, but rather reliance on records that are managed across the network, and to ensure that the encrypted currency is not exchanged twice, each member of the network verifies the validity of transactions using technology drawn from computer science and code. Once decentralized approval is obtained from the network members, the transaction is added to the log, which is verified for its accuracy and validity, and the log displays complete historical data on transactions associated with a specific cryptocurrency. It is permanent data that no entity can manipulate. The possibility of obtaining approval of the validity of transactions between accounts within the framework of a distributed network is a radical technological transformation (Bouveret & Haksar, 2018).

-The Working Steps of the Block Chain

Source: Marion PIGNEL, LA TECHNOLOGIE BLOCKCHAIN Une opportunité pour l'économie Social? Ed. COLLECTIONS POUR LA SOLIDARITÉ – PLS, Paris, P5.



Through Figure No. (2), we find that all the processes that take place within the block chain system go through five basic stages (Karam El-Din & Habib, 2019; Troubi, 2020; Kopanaki & Stroumpoulis & Oikonomou, 2021; Barkel & Kurgun & Groen, 2021):

1- Customer (A) conducts a business transaction with Customer (B).

- business transaction and other transactions are collected inside the block, which is a set of encrypted information.

- block is verified and validated by network nodes, which are computers

4- The next operation after the block is validated, it is dated and added to the block chain, making it accessible to all users.

5- Customer (B) can receive the transaction made by Customer (A).

Based on the above, blockchain technology works in function of three main mechanisms "Blockchain Principles" (Dogru & Mody & Leonardi, 2018; Önder & Gunter, 2022):

- 1- **Distributed Ledger Technology:** A decentralized financial record that includes financial, physical, legal, and electronic asset data that can be shared across a network of locations, geographic regions, or multiple institutions in a peer-to-peer system, and all participants on the network can view and obtain a copy of this data. The security and accuracy of the assets stored in the registry are kept in encrypted form, and it is extremely difficult to identify users because all names, data, and operations are done through ciphers and symbols.
- 2- **Decentralized Database:** This mechanism aims to eliminate the idea of centralization, where there is no one party, one server, or one computer that controls the block chain, but the chain is distributed among all the individuals participating in it around the world.
- 3- **Mining:** Miners around the world perform a set of complex arithmetic operations through their computers in order to reach the correct code or hash that connects any transaction to the previous transaction within the chain, and distinguishes it from other transactions. This is the main function of the mining process. Once the correct hash is obtained, the transaction is authenticated and allowed to join other processes within the blocks, eventually forming the block chain. This makes the process of hacking or manipulating the system very difficult. Knowing that the miner who has reached the correct hash gains a percentage of the Bitcoin-shaped conversion process (Abdelkawi & Salama, 2022).

Some believe that it is not possible for blockchain technology to carry out its functions and tasks without the existence of what is known as consensus algorithms. The latter is the mechanism that allows reaching consensus within the Blockchain system, and thus algorithms are considered the crucial element responsible for maintaining the integrity and security of distributed Blockchain contents, as they work to provide a means for distributed nodes to reach consensus on knowledge of any version of the Blockchain. It is the real one, and this is necessary to ensure the continuation of any digital economic system in the correct manner (Bani Amer & Tahseen, 2019). Algorithms for consensus can take several forms, the most important of which is (Gupta 2018):

- Proof of participation: Proof-of-participation provides greater protection against malicious attacks on the network by discouraging attackers and setting a high cost to them to perform any operation.

- Multiple signatures: The majority of validators (verifiers) must agree that the transaction is valid (e.g., Three out of five).

- Difference Correction and Handling: An algorithm is used to resolve conflicts between computer nodes (network members) when: one node produces a different set of information than the other.

In concrete terms, blockchain technology takes the form of a ledger that lists data, generally transactions, grouped into blocks linked together. A block is simply a set of information put together,

and the blocks are linked together irreversibly (by the chains). Each block is validated by network nodes, user-validators called “miners”. Once validated, the blocks are time stamped and integrated into the block chain, accessible to all users. The transaction is then visible to the receiver as well as the entire network. The only way to modify the block chain is to add a block: it is not possible to change an existing block or modify the chains (**Pignel, 2019**).

Block Chain Components

Blockchain technology is based on the four elements (**Khalifa, 2018**), which are the block, the hash, the time signature, and information, and they are all linked together to form what is called the block chain.

1- **The Block**: It is a set of operations to be performed and implemented within the chain, such as transferring funds, recording data, or following up on a case. Each block hosts a limited number of transactions and information that are not accepted larger than it, until the transactions within it are eventually completed. Then a new block associated with it is created, and the main goal is to prevent fake transactions within the block that may cause it to be closed.

2 - **Information**: It refers to the operations that take place within the block.

3-**Hash**: It is considered a (digital fingerprint) and it is a code that is produced through an algorithm inside the block chain program.

There are four basic functions of hashes. (**Gupta, 2018**):

-Distinguishing each chain from other chains.

-Identify and know each block within the chain.

-Label each piece of information within the block with a unique hash.

- Linking blocks to each other within the chain, where each block is linked to its preceding and subsequent hashes.

4- **Timestamp**: It is the time when any transaction was performed within the chain (**Sathishkumar, 2021**)

Unified Theory of Acceptance and Use of Technology (UTAUT)

-**Venkatesh & Morris & Davis, (2003)** developed the Unified Theory of Acceptance and Use of Technology after careful review of eight previous models, as shown in Table No. (1).

Table (1) the previous eight models for technology acceptance.

Model	Abbreviation
The Theory of Reasoned Action. (Fishbein & Ajzen, 1975)	TRA
The Technology Acceptance Model. (Davis, 1989)	TAM/TAM2
THE Motivational MODEL. (Davis, Bagozzi & Warshaw, 1992)	MM
The Theory of Planned Behavior. (Ajzen,1991).	TPB
A Combined Technology Acceptance Model/Theory of Planned Behavior (Taylor & Todd, 1995).	C-TAM-TPB
The Model of PC Utilization;	MPCU

(Thompson, Higgins & Howell, 1977; Triandis, 1991).	
Innovation Diffusion Theory (Rogers,1991; Moore & Benbasat ,3002)	IDT
Social Cognitive Theory (Bandura, 1986; Compeau & Higgins,1995)	SCT

Venkatesh et al. (2003) "User Acceptance of Information Technology

-Technology acceptance is defined as the apparent desire within a user group to use information technology to perform the tasks for which it was designed (Dillon and Morris,1998). The acceptance variable and the use variable are two essential variables in order to measure the success of a system in the field of information systems application (Saade,2007).

- Theory (UTAUT) is a rigorous scientific model that provides a unified theoretical basis for adopting technology and explaining usage behavior in a number of different disciplines. The model consists of four variables as shown in Figure (3) as follows:

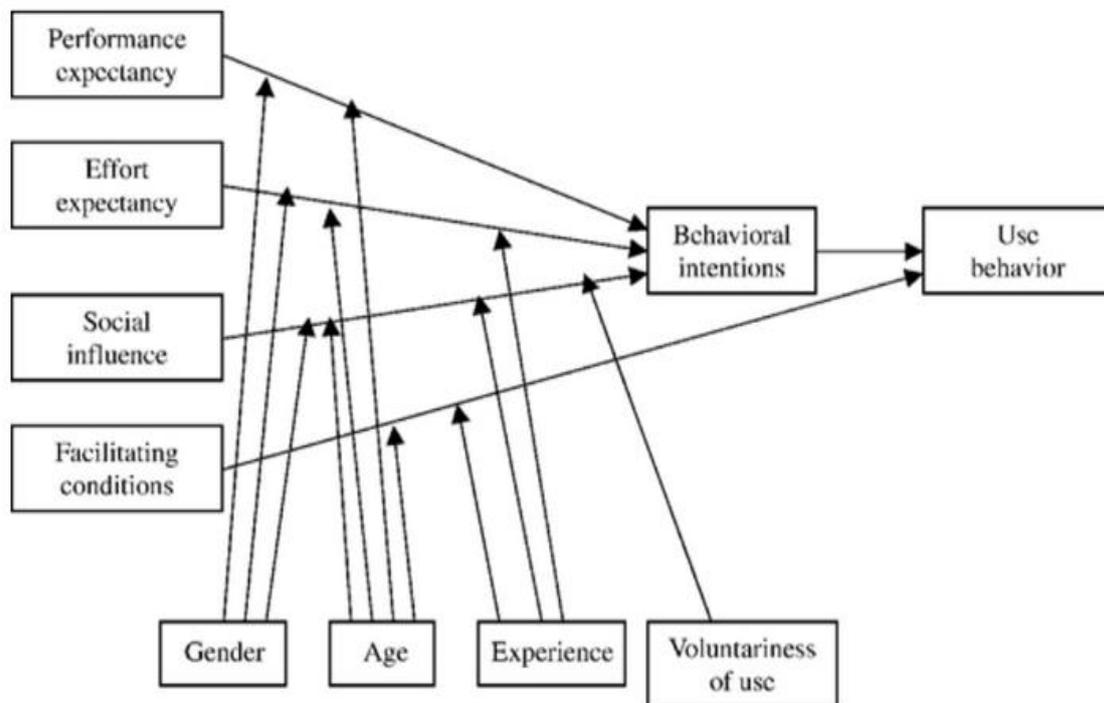


Figure (3): Model Unified theory of acceptance and use of technology (UTAUT) (Venkatesh, et.al 2003).

Expected Performance: It refers to the degree to which users believe that the use of a particular technology will contribute to improving the performance of their jobs

(Abu Shanab& Pearson, 2009 ;Mubark,2019).

Expected Effort: The degree of ease expected from using a particular technology (Alenezi,2011).

Social influence: It refers to the extent to which individuals believe that important and influential people in their behavior believe that a certain technology should be used (Alenezi, 2011; Yu, 2012).

Facilitating conditions: The degree to which the user is aware that the infrastructure and technology are in place to support the use of the system (Mubark, 2019).

The Most Important Applications of Blockchain in the Hospitality Industry

Securing Bills and Payments: The most obvious practical application of the blockchain will be in the hotel industry with regards to secure payments. Whether it's accepting cryptocurrency such as Bitcoin or Ethereum, or simply providing a transparent and secure global ledger, bank payments can be simplified and costs associated with hotels can be reduced (**Sathishkumar, 2021**).

Identity and Security: One of the most exciting potential uses for blockchain in the hospitality industry is related to identification and security services. Passengers are required to present identification cards at various stages of their journey, but industry-wide adoption of blockchain could allow for a shared digital database, where passengers, for example, provide a fingerprint to quickly and seamlessly verify their identity, reducing wait times (**Sathishkumar, 2021**).

Loyalty Programs: Every hospitality establishment will need information systems to manage the reward points awarded to their guests for being loyal and also to track the redemption of these earned loyalty points. Loyalty reward schemes are an important part of creating a payout allowance and blockchain technology can improve the quality of loyalty programs by streamlining the process, making it easier for customers to access and redeem their points. With the blockchain, rewards can be distributed through digital tokens that can, potentially, be used anywhere and at any time, while the inherent security benefits can reduce fraud in the loyalty system (**Barkel et al., 2021**).

BeeToken - Blockchain Platform for Home Sharing: BeeToken or Beenest is a blockchain home sharing platform, which connects customers with hosts and allows customers to arrange and pay for stays. Its peer-to-peer transactions mean that no commission is charged, while the decentralized nature of the platform provides additional security benefits. The BeeToken platform includes payment, reputation, and arbitration protocols, which helps keep customers and hosts safe (**Revfine, 2023**).

LockChain – Direct Marketplace With 0% Commission: LockChain is a direct marketplace, powered by blockchain technology, which allows hotels and other hospitality companies to rent out their property. It is an all-in-one platform, allowing both property management and payment to occur in one place. The decentralised booking engine cuts out 'middlemen' and another major advantage is that LockChain operates a subscription model, with a zero percent commission policy (**Revfine, 2023**).

Transparency and Security in Transactions: By using cryptocurrencies, blockchain makes it possible to conduct financial operations or transactions. The usage of cryptocurrencies guarantees the security and traceability of a transaction. The adoption of cryptocurrency also reduces the risk of dealing with counterfeit money (**Rashideh, 2020; Khanna & Sah & Choudhury & Maheshwari, 2020; Dogru et al., 2018**).

2- Study Aim

This study aims to assess the opinions of five-star Egyptian inmates towards their acceptance of using the application of blockchain technology and the impact of this on their behavioral intentions using a model.

3- Study Model

This study was based on the Unified theory of acceptance and use of technology (UTAUT), which was presented by Venkatesh et al. (2003). This model assumed that the user's acceptance of any modern technology depends on four main factors: performance expectancy, effort expectancy, social

influence and facilitating conditions. These four factors influence dependent factor, which is the behavioral intention to use. Meaning the actual willingness to use this technology if it is applied. Thus, the (UTAUT) model is considered a powerful indicator by which users can predict the behavior of users towards modern technologies before they are applied.

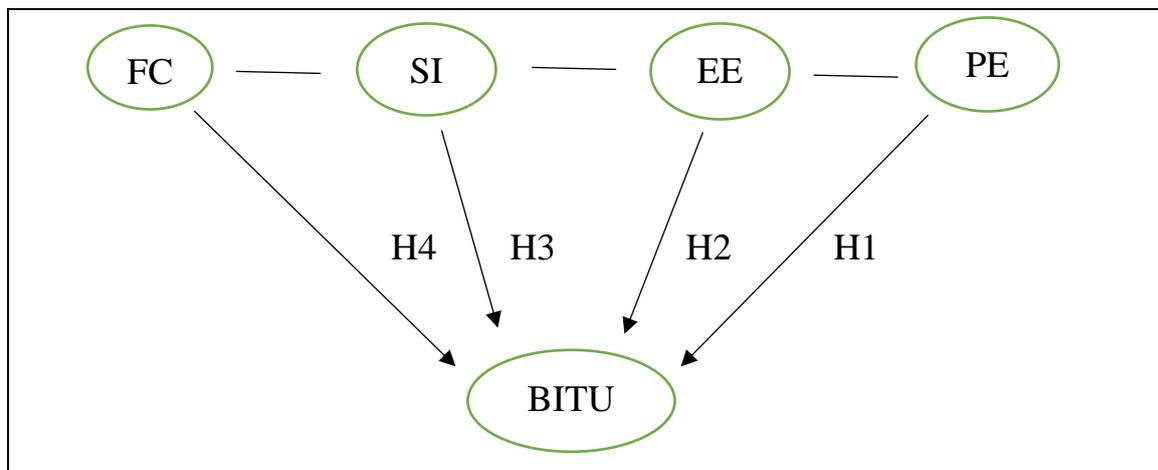


Figure (4): Structural Model of the Research

PE: Performance Expectancy; **EE:** Effort Expectancy; **SI:** Social Influence ; **fc:** facilitating Conditions ; **BITU:** Behavioral Intention to Use.

4-**Study Hypotheses**

H1- There is a statistically significant relationship between the expected performance benefits of a blockchain and the behavioral intention to use it.

H2-There is a statistically significant relationship between the expected ease of use of a blockchain and the behavioral intention to use it.

H3-There is a statistically significant relationship between the social influence of influential people who use the blockchain technology and the behavioral intention to use it.

H4-There is a statistically significant relationship between the facilitation conditions for the blockchain and the behavioral intent to use it.

5-**Methodology**

This study relied on two approaches: the descriptive analytical approach and the explanatory approach. In order to reach the objective of the study, a questionnaire was designed, consisting of five parts based on the unified theory of technology acceptance and use model. The first part aims to identify the opinions of the study sample about the expected benefits of using blockchains, and the second part is directed towards identifying the sample's opinions about the ease of use. Block chains, and the third part to identify the extent of the social impact of important people towards the use of block chains, while the fourth part aims to identify the extent to which the possibilities are available for the use of block chains, and the fifth part, which is related to the variable of the behavioral intention of the study sample towards the use of blockchain technology if it is applied in Egyptian hotels. The study relied on the construction of the questionnaire on the Likert five-scale.

The study population was in five-star hotels in (Cairo, Alexandria and Sharm El-Sheikh). Five-star hotels have been targeted for their ability to continuously develop and bear the cost of implementing modern technology. The questionnaire was distributed to a random sample of hotels guests, the study sample, directly or through the Google Forms application. The total number of questionnaires

distributed was 400, and the number of valid forms for analysis was 320, with a response rate of 80%. Data were analyzed statistically using SPSS. v26 program. Some statistical methods were relied upon in analyzing the data: Cronbach's alpha coefficient to check the stability of the scale, regression coefficient, and simple linear correlation coefficient, in addition to descriptive coefficients: means and standard deviations according to the Likert five-scale.

6- Results and Discussion

Reliability Analysis

The reliability coefficient (Cronbach Alpha) is used, one of the most popular measures of reliability testing. The value of Cronbach's alpha coefficient ranges from zero to one and values greater than 0.70 express a high stability coefficient and the lowest acceptable value is 0.60 (Straub et al., 2004).

Table (2): Cronbach's Alpha Correlation Coefficient

Variables	Number of Items	Cronbach's Alpha Coefficient
Performance expectancy	4	0.98
Effort Expectancy	4	0.89
Social influence	3	0.90
Facilitating conditions	3	0.92
Behavioral intention	3	0.91

It is clear from Table (2) that the values of Cronbach's alpha coefficient for the five variables ranged from 0.89 to 0.98, which are values greater than the minimum statistically acceptable level of 0.70, and therefore these values give a high indicator of the stability of this scale and the presence of internal consistency between all its dimensions and elements.

Descriptive Analysis

Table No. (3) Descriptive Statistics Expectancy Performance Variable

Variable	Strongly dis agree	Dis agree	Undecide	Agree	Strongly agree	Mean	Std. division
Performance expectancy: Your expectations about the benefit of implementing blockchains						4.24	0.221
communicate faster with block chain.	1			152	167	4.51	0.518
Block chain apps useful in my daily life.				164	156	4.48	0.500
Block chain apps accomplish things more quickly.	1			172	147	4.45	0.517
Block chain apps increase my productivity.				183	137	4.42	0.495

The results in Table (3) indicate that the opinions of the study sample tend to strongly agree that the applications of blockchains have many benefits, as the variable obtained an arithmetic mean of 4.24. As for the standard deviation values, they all indicate an acceptable variance and homogeneity in the responses of the sample members to this dimension, as the standard deviation did not reach the zero value 0.00, which indicates complete congruence in the answers. Also, its value did not exceed 1.5, indicating the absence of a large dispersion in the answers of the sample. We conclude from the table that the study sample expects many advantages and benefits, such as ease of use, the amount of production, and the achievement will be better based on the application of blockchain technology. We can get this as a result of what many international organizations have done, as we indicated in the theoretical study, to implement blockchain technology, and the majority of the study sample used the technology in other organizations.

Table No. (4) Descriptive Statistics Effort Expectancy Variable

Variable	Strongly dis agree	Dis agree	Undecide	Agree	Strongly agree	Mean	Std. division
Effort expectancy: Your expectations for usability and effort savings from implementing blockchain						4.24	0.497
I find block chain apps easy to use.				179	141	0.497	4.44
Block chain apps are clear and understandable.			1	269	50	0.369	4.15
It's easy to become skillful at using block chain apps.				223	97	0.460	4.30
Learning how use block chain apps doesn't require a lot of effort.				279	41	0.334	4.12

The results in Table No. (4) indicate that the study sample agreed on the ease of use and the expected lack of effort by using block chain applications, so that the variable gets an arithmetic average of (4.24). From the results of the table, we find that the majority of the study sample's opinions expected much less effort when using the blockchain technology in terms of ease of learning, use, and the acquisition of personal skill. This can be attributed to the perceived ease of using many other modern technological applications, and also, as the study showed, to the spread of transactions with blockchain technology in many countries of the world.

Table No. (5) Descriptive Statistics Social Influence Variable

Variable	Strongly dis agree	Dis agree	Undecide	Agree	Strongly agree	Mean	Std. division
Social influence						4.13	0.333
People whose opinions I value prefer to use blockchain applications if they are applied in Egyptian hotels in the future.			9	258	53	4.12	0.418
People who are important to me believe that in the future I should use blockchain applications				278	42	4.13	0.338
The people who influenced my behavior believe that I should use blockchain applications in the future.				219	101	4.31	0.465

The results in Table No. (5) indicate that the opinions of the study sample have confirmed the presence of societal influences from the individuals around them who trust and influence their behavior, motivating them towards using blockchain applications. The mean value of this variable was 4.13. And from the results of the table, we conclude that the majority of the opinions of the study sample had already expected the existence of a societal influence from the people who could be influential for them. Perhaps this is due to the constant orientation of five-star hotel guests to search for the most luxurious ways to perform business and achieve success, as many of them will have an impact on others.

Table No. (6) Descriptive Statistics Facilitating Conditions Variable

Variable	Strongly dis agree	Dis agree	Undecide	Agree	Strongly agree	Mean	Std. division
Facilitating conditions						4.24	0.307
I have a computer through which I can perform operations on blockchain applications.			21	214	85	4.20	0.540

I think there are people with experience and skills who will help me to use blockchain applications.				235	85	4.26	0.442
I have experience that qualifies me to use blockchain applications.	1	1	5	221	92	4.25	0.528

The results in Table No. (6) indicate that the opinions of the majority of the study sample agreed on the availability of the necessary environment for using blockchain applications, which is represented in computers, personal skills, and support of experienced people. We conclude from these results that the majority of the opinions of the study sample, which is expected to have modern technological devices such as (mobile phone - computer) with the availability of high-speed Internet networks at the present time, so they expected that the facilitating conditions for the application of blockchain technology are available and will not find difficulty in application

Table No. (7) Descriptive Statistics Behavioral Intention Variable

Variable	Strongly dis agree	Dis agree	Undecide	Agree	Strongly agree	Mean	Std. division
Behavioral intention						4.13	0.344
I will rely on blockchains in my future business.				252	68	4.21	0.409
I intend to use blockchains to book hotels if they are applied in Egypt.				266	54	4.16	0.375
I will recommend to my friends and relatives to use blockchain if it is applied in Egyptian hotels.				272	48	4.15	0.357

It is clear from Table No. (7) that the consensus of all the study sample agrees and strongly agrees on the use of block chain applications when they are available and used in Egyptian hotels, as well as working to motivate others to use block chain applications, and this comes as a result of the variables related to the benefits of use and ease of performance social influence and facilitation conditions. We also conclude, through the values contained, that blockchain technology will provide many guarantees and advantages for hotels, as the results showed, represented in (facilitating procedures - speed of completing tasks - transparency and security in all transactions - attracting new guests and increasing the loyalty of existing guests to hotels through compatibility and presence with modern technology Which hotel guests look forward to using to reach greater luxury.

Model Analysis

Some statistical methods such as Pearson's correlation coefficient and simple linear regression coefficient were relied upon to verify the significance of the relationships contained in the research model, and to find out the strength of these relationships, and the influence of the various model variables. The results were as shown in Figure (5).

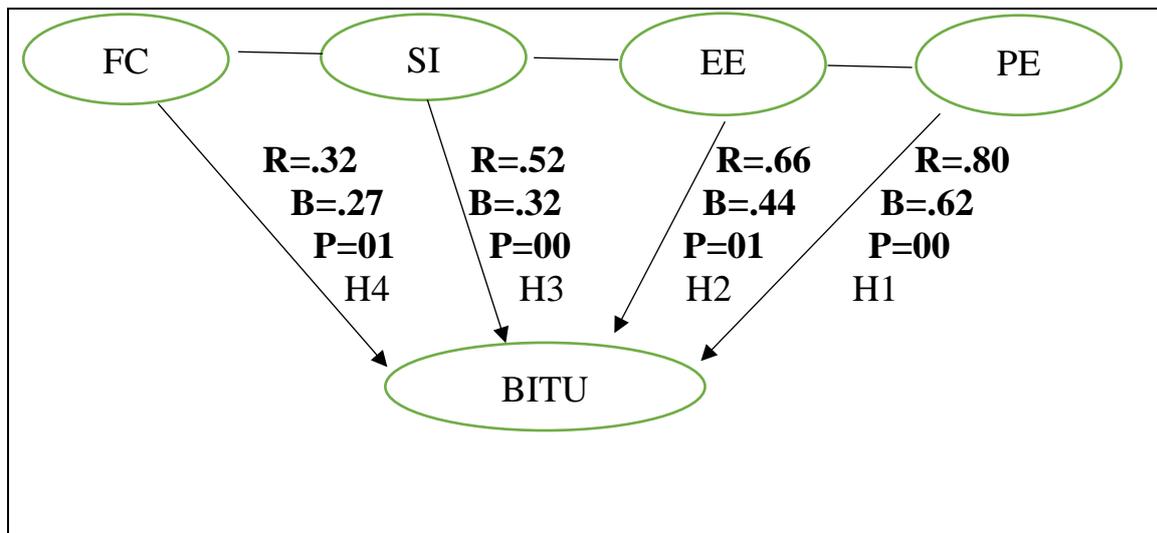


Figure (5): Statistical Analysis of The Study Model

Hypothesis Test

Independent variable	Dependent variable: behavioral intention (BI)			
	R	B	T	SIG
PE	.801**	.621	9.78	0.00
EE	.664**	.443	7.42	0.01
SI	.523**	.321	11.54	0.00
FC	.321*	.272	18.14	0.01

significant correlation at the level of Significant <0.05

The results presented in Table No. (8) indicate that the values of the correlation coefficient (R) for the expected performance variable are 0.80, which is a strong positive relationship, and the value of the influence coefficient (B) is 0.62, which explains the value of the effect of the variable on the independent variable behavioral intentions

- The value of (R) for the expected voltage variable is 0.66, and the value of (B) is 0.44.
- The value of (R) for the social impact variable was 0.52, and the value of (B) was 0.32.
- The value of (R) for the soft conditions variable was 0.32, and the value of (B) was 0.27
- All values are statistically significant < 0.05.

Based on the results, study hypotheses are accepted, which state:

H1- There is a statistically significant relationship between the expected performance benefits of a blockchain and the behavioral intention to use it.

H2-There is a statistically significant relationship between the expected ease of use of a blockchain and the behavioral intention to use it.

H3-There is a statistically significant relationship between the social influence of influential people who use the blockchain technology and the behavioral intention to use it.

H4-There is a statistically significant relationship between the facilitation conditions for the blockchain and the behavioral intent to use it.

7-Conclusion and Recommendations

Blockchain technology will offer an endless world of benefits economically, administratively, and services. Indeed, it will save a lot of effort and costs related to the performance of economic and financial operations, whether in the private or government sectors alike. Blockchains also achieve an actual system for monitoring all operations and verifying their source in addition to address fraud, forgery, manipulation and tampering. As a result of the encryption or fragmentation mechanism, which means complete safety for users, with regard to the tourism and hospitality sector, it will enable blockchains to enhance the quality of their services, customer loyalty and profitability.

-The study recommends that Egyptian hotels and all establishments operating in the hospitality industry should adopt the application of blockchain technology to take advantage of the multiple benefits it provides.

-The study also recommends that the official authorities in the Egyptian state need to issue legislation that regulates the use of blockchain technology.

8-Future Studies

Based on the importance of blockchain technology and the multiple benefits it provides if applied in organizations operating in the hospitality industry, the study recommends completing the research to determine the role of blockchain technology in enhancing the performance of hotels, given the high speed of business performance that cannot be mistaken and the provision of data. Better and safer. As well as the role of blockchain chains in enhancing the competitive advantage of Egyptian hotels, due to the advantages that the technology will provide that will place the services provided by Egyptian hotels on the lists of international hotels in terms of transparency, privacy and achievement.

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