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Behavioral Intention to Use Cryptocurrencies Among Bank Employees in the West Bank

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Abstract Cryptocurrencies have been increasingly accepted worldwide; however, their applications in financial systems are still limited. Global research on cryptocurrencies adoption is extensive; studies specifically on the West Bank are relatively scarce. This distinction is crucial as it underscores the unique contribution of this study to the application of the UTAUT2 model in order to understand cryptocurrency adoption among bank employees in the West Bank. The purpose of this paper is to identify bank employees' behavioral intention to use cryptocurrency in the West Bank. To that end, the researchers employed seven variables to collect and analyze the data. These variables were Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Hedonic Motivation, Price/Value, and Habit. The researchers added two more variables to the model: the Perceived Risk and Legitimacy. The analysis was based on an online questionnaire administered to 380 bank employees. After data collection, the researchers used the Structural Equation Modeling for analysis. The main findings showed that 95.8% of the participants were familiar with cryptocurrency. Of these, 30.3% expressed an interest in investing in cryptocurrencies. However, only 8.4% had actually invested in it. The majority of those investors (84.3%) were males aged 26-45 years old. Furthermore, factors like Performance Expectancy, Effort Expectancy, Social Influence, Hedonic Motivation, Price/Value, and Legitimacy showed a positive and significant effect on behavior intention to adopt cryptocurrency. In contrast, the Facilitating Conditions, Habit, and Perceived Risk did not significantly influence users` intention to adopt cryptocurrency. The study also revealed a number of practical implications, including strategies to boost cryptocurrency adoption, enhancing legitimacy through clear regulations, developing cost-effective mining programs, and emphasizing practical benefits for high-income males interested in investing in cryptocurrencies. Based on these findings, the researchers recommend promoting social influence and ease of use through training to boost hedonic motivation and highlighting financial benefits like cost savings and lower fees while addressing price volatility.

Keywords cryptocurrency · UTAUT2 model · behavioral intention · the West Bank · financial systems.

Jel Codes G21, N25, O16, O33

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Background

The amazing advancement of technology has fundamentally changed every aspect of human existence, including how we handle financial transactions (Glebova and Desbordes, 2020). Following developments in stock exchanges and mobile banking, the world is currently seeing a fascinating change in which digital currencies (new electronic payment systems) are replacing conventional money. Digital currency is a creative method of money exchange that uses technology (Kavanagh and Dylan-Ennis, 2020). A significant advancement in this area is the integration of technology and finance, also known as financial technology (FinTech). The growth of FinTech, as described by Arner et al. (2015) and Khan (2024), is an ongoing process in which finance and technology have evolved together, leading to both evolutionary and disruptive innovations such as peer-to-peer lending, mobile payments and crowdfunding. FinTech or financial technology refers to the integration of technology into financial services to enhance their delivery and efficiency. This broad field includes a number of applications ranging from mobile banking and online payment systems to blockchain technology. FinTech represents a transformative wave in the financial services industry and is reshaping how consumers and businesses interact with money. This transformation is driven is by advancements in technology, regulatory changes, and evolving consumer preferences.

Due to FinTech advancements, there has been a greater need for digital currencies to enable quick, easy and low-cost financial transactions (Jackon, 2024). New digital currencies, known as cryptocurrencies, were developed using cryptographic methods to replace conventional money (Li, 2024). With the 2008 debut of Bitcoin, the rise of cryptocurrencies and blockchain technology sparked a revolutionary shift in financial technology, thus establishing them as widely recognized innovations within the financial sector (Kayani and Hasan, 2024). Bitcoin was introduced in 2008 when the anonymous creator of blockchain technology "Satoshi Nakamoto" published a paper titled "Bitcoin: A Peer-to-Peer Electronic Cash System", secured by cryptography, designed to enable people to connect and exchange digital tokens securely (Nakamoto, 2008). As awareness of the benefits of cryptocurrency is growing, it is gaining popularity as a payment method and can become a major global medium of exchange (Yu et al., 2024). Cryptocurrency also functions without the interference of rules or oversight from governments. Because cryptocurrencies are decentralized, people have more influence over their financial transactions (Nakamoto, 2008).

Recently, there has been a surge in the global adoption of cryptocurrencies (Wu et al., 2022). However, the adoption rate of cryptocurrencies has been limited due to concerns over their potential use in money laundering, terrorism financing, and tax evasion (Lim, 2022; Sneck, 2024). Despite these challenges, cryptocurrency continues to be regarded as a technological advancement for financial institutions (Chen et al., 2021).Researchers have become more interested in cryptocurrency due to its attractiveness. A number of studies have investigated the adoption of cryptocurrency: Tamphakdiphanit and Laokulrach, 2020; Ayedh et al., 2021; Chengyue et al., 2021; Alaklabi and Kang, 2022; Kim et al., 2022; Ramachandran and Stella, 2022; Bommer et al., 2023; Li et al., 2023; Atellu, 2024. Nonetheless, there is a lack of academic research on cryptocurrencies in relation to the West Bank.

The West Bank Financial System

The components of the financial system in the West Bank are the Palestine Monetary Authority (PMA), the financial institutions, and the Palestine Exchange. The PMA, established in 1994, following the creation of the Palestinian National Authority, acts as the central bank (PMA, 2022). Financial institutions are categorized into depository financial institutions (commercial and Islamic banks) and non-depository financial institutions (insurance, leasing, brokerage, mortgage, specialized financing companies, electronic payment, and money exchange companies). Depository financial institutions are supervised by the PMA, whereas non-depository institutions are overseen by both the PMA and the Palestinian Capital Market Authority (PCMA) (PMA, 2022). The PCMA manages the Palestine Exchange (Association of Banks in Palestine, 2022). This study investigates the reasons that motivate bank employees in the West Bank to accept and use cryptocurrencies. Although many people are familiar with cryptocurrencies, not that many are actually using them. Therefore, there is a need for a better understanding and more research on them in this area. This viewpoint is crucial because the recognition of cryptocurrency as a legitimate form of cash or a means of payment will determine how far it may expand. With new information and awareness of the factors influencing current, prospective, and non-cryptocurrency users, this research can have support in expressing the criteria essential for effective cryptocurrency acceptance among bank workers. Furthermore, by conducting this study, more information will be available describing the relationship between the application of digital currency and the extended Unified Theory of Acceptance and Use of Technology (UTAUT2) model.

Financial markets may be adversely affected by world events such as wars, pandemics, economic downturns, natural disasters, and political instability; thus, investors become more risk averse as an outcome of increasing the uncertainty and vulnerability within these markets (Kamal et al., 2023). As a result, many investors turn to alternative investment options for safety, leading cryptocurrencies to be one such option during political uncertainties (Colon et al., 2021; Kevser, 2022).

Banks in the West Bank face global and local challenges. These challenges, shaped by ongoing political conflicts and economic instability, limit access to global financial networks, restrict the movement of goods and people and hinder digital infrastructure development (Hinn and Harker, 2024), thus impacting FinTech growth. Additionally, limited access to traditional banking and geopolitical restrictions, let alone regulatory and infrastructure barriers, such as inadequate digital systems and restrictive financial policies, must be addressed for effective FinTech strategies (Hurani, 2024). The West Bank's socio-economic conditions have led to growing interest in alternative solutions like cryptocurrencies. These currencies enable individuals to manage their finances without physical banks, allowing the banking sector to reach underserved populations and provide financial services. As Hamilton (2024) notes, cryptocurrencies can offer better access to banking and financial inclusion for individuals in underdeveloped countries that lack traditional banking services.

Significance of the Study

It has been shown that the overall attitude of bank employees toward cryptocurrency is somehow encouraging and hence may influence the positive decision of banks on the adoption and use of cryptocurrency (Mahwera, 2022). We expect that the findings of this study will provide valuable insights for policymakers and financial institutions to strengthen the ongoing cryptocurrency adoption initiatives. It may also inform the development of new strategies or training programs to enhance employees' understanding of cryptocurrencies and their benefits and accordingly contribute to the broader acceptance of cryptocurrency in the

West Bank's financial sector. This could lead to improvement of access to digital financial services and enhancement of economic opportunities for both employees and the general population. To the best of the researchers' knowledge, no such study has been conducted in the West Bank.

Objectives of the Study

The following objectives were developed for this study:

- To assess knowledge of and attitudes toward cryptocurrency use among bank employees in the West Bank.
- To examine the UTAUT2 model elements affecting bank employees' behavior regarding the use of cryptocurrencies and to provide justification based on the model.
- To assess the extent of bank employees' technological adoption and intentions regarding cryptocurrency use.
- To evaluate the alignment of the UTAUT2 model with the data on bank employees' behavioral intentions to use cryptocurrencies and to develop a framework for practical implications.

The paper has the following sections. The introduction was devoted to discuss the research background, the financial system in the West Bank, significance of the study and study objectives. The second section was devoted to the evolution of cryptocurrencies and the research theoretical framework. The third section introduced the hypotheses related to the variables according to the relevant theories. The fourth section covers the methodology: study design, study setting and timeframe, study population, sample size and technique, demographic data and the additional equations used in the analysis. The fifth section was devoted to demographic data analysis and the modeling analysis framework. The sixth section discussed the results of the hypotheses and their theoretical and practical implications. The last three sections covered the conclusion, the study limitations and future research agenda, an overview and the contributions of the study.

Theoretical Framework

Cryptocurrency

Financial services companies continuously seek innovative ways to enhance their offerings and deliver faster, more efficient services that boost transparency, reduce costs, and improve customer satisfaction (Zheng et al., 2017). Historically, banks and trade associations have always relied on physical media like coins and paper money for value transmission, thus limiting their reach due to physical transportation challenges. The advent of communication and information technology, such as the electrical telegraph, has revolutionized this by enabling rapid information transfer over long distances (Alt et al., 2018). Recent technological advancements have allowed financial service providers, particularly banks, to develop unique corporate networks and systems that facilitate internal communication and operations. Electronic interfaces such as internet banking and ATMs have become integral to customer interactions and have been widely adopted by other financial institutions and exchanges. As a result, the financial services sector has evolved into a digital enterprise where digital interactions have become crucial for connecting global market participants, financial institutions, and customers (Gomber et al., 2017). Cryptocurrency is a significant development in the world of money and finance. Cryptocurrency is an electronic medium of exchange that verifies financial

transfers and controls the creation of new units of money by using encryption. These native digital assets have multiple uses in public blockchain systems with open access, acting as a means of exchange, a store of value, and occasionally even showing characteristics of securities (Hassan et al., 2020; Steinmetz et al., 2021; Jackon, 2024). A blockchain can be described as a distributed digital transaction ledger that is kept in identical copies across several computers under the control of multiple entities (Tabatabaei et al., 2023).

Extended Unified Theory of Acceptance and Use of Technology (UTAUT2)

In the last few decades, different theories were proposed to explain or predict how technology would be used and accepted. Venkatesh et al. (2003) established the unified theory of acceptance and use of technology (UTAUT) to identify the reason behind this technology adoption. The UTAUT hypothesis was proposed by carefully integrating and synthesizing the Theory of Reasoned Action (TRA) (Fishbein and Ajzen, 1977), Technology Acceptance Model (TAM) (Davis, 1989), Motivational Model (MM) (Davis et al., 1989), Theory of Planned Behavior (TPB) (Ajzen, 1991), combined TAM and TPB (C-TAM-TPB), (Taylor and Todd, 1995), Model of PC Utilization (MPCU) (Thompson et al., 1991), Innovation Diffusion Theory (IDT) (Warner, 1974), and Social Cognitive Theory (SCT) (Bandura, 1986). According to Venkatesh et al. (2003), the UTAUT primarily uses four variables in predicting behavioral intentions to adopt technology: Performance Expectancy, Effort Expectancy, Social Influence and Facilitating Conditions. The model was additionally moderated by four primary variables: gender, age, experience and willingness of use. Venkatesh et al. (2012) contended that the UTAUT model included only technical and operational methods because it emphasized usefulness and ease of use as key determinants of consumers' intentions to use information technology. Then, the UTAUT2 model was proposed. This expanded the UTAUT model by including some variables that considered users' psychology or subjective perception, thus introducing new constructs: Price/Value (PV), Habit (HB), and Hedonic Motivation (HM). This has shifted the model's focus from the organizational to the consumer perspectives. Compared to UTAUT, the extensions introduced in UTAUT2 significantly increased the percentage of variance that is explained by technology use from 40% to 52% and behavioral intention from 56% to 74% (Venkatesh et al., 2012). Many studies have been conducted and have proved that the model is useful for analysis in the context of newly developed technologies. UTAUT2 is frequently employed to evaluate technology adoption in diverse fields, such as financial services (Chang et al., 2020), internet banking and commerce (Lai and Zainal, 2015) and consumer usage intentions (Li et al., 2023).

Based on this, this study has adopted the UTAUT2 model to explore the factors influencing cryptocurrency acceptance among bank employees in the West Bank. The research is grounded in UTAUT2, which builds on the Technology Acceptance Model (TAM) and examines how various factors directly affect technology use intentions.

Study Variables And Hypotheses

Performance Expectancy (PE)

PE as defined by Venkatesh et al. (2003) refers to users' belief that adopting a technology would significantly enhance their productivity and overall performance. PE is created using the five combinations of the perceived usefulness from TAM, extrinsic motivation from MM, relative advantage from IDT, outcome expectations from Social Cognition Theory SCT and job-fit from MPCU. As a combination of these five factors, PE remains the most significant predictor of intention across all evaluation stages (Venkatesh et al., 2003). This factor is widely acknowledged as a critical determinant influencing individuals' intention to adopt and use new technologies (Venkatesh et al., 2012). Several published empirical studies have highlighted the

importance of PE (Khan et al., 2017; Makanyeza and Mutambayashata, 2018). According to Nadeem et al. (2021), the adoption of cryptocurrencies and other similar technologies has a positive effect on consumers' intentions. According to Arias-Oliva et al. (2019), PE was identified as a key factor influencing the adoption and usage of digital money in Spain. Therefore, PE is seen as one of the key factors affecting the adoption of cryptocurrencies.

Furthermore, the related literature consistently identifies performance expectancy as a crucial factor that significantly influences users' behavioral intention and acceptance of technology (Chandler et al., 1987; Venkatesh et al., 2012; Alalwan et al., 2019; Nikolopoulou et al., 2021). Customers are more likely to use and adopt new technology when they perceive it as providing meaningful advantages and improvements in their everyday activities (Ghalandari, 2012). In addition, cryptocurrencies have been used to provide individuals with secure and confidential methods of managing their savings and funds.

The following hypothesis was proposed and tested:

H1: Performance Expectancy has a positive influence on the behavioral intention to use cryptocurrency.

Effort Expectancy (EE)

EE as defined in UTAUT2 refers to the level of ease associated with consumers' use of new technology (Venkatesh et al., 2003). This plays a significant role in shaping their intention toward adopting such innovative mediums (Merhi et al., 2019). Three different design combinations were used to create EE: ease of use from IDT, perceived ease of use from TAM, TAM2 and complexity from MPCU. Many practical field studies have stressed the significance of EE or related issues such as the perceived ease of use in positively influencing users' intention to adopt a technology (Alalwan et al., 2017; Rodrigues et al., 2016). The extent to which a technology's usability influences its widespread adoption and acceptance remains a topic of debate (Lu, 2021). Numerous empirical studies have demonstrated that the adoption of technologies, like cryptocurrencies, is positively correlated with the level of effort that users commit to learning them (Kishore and Sequeira, 2016; Farah et al., 2018; Moon and Hwang, 2018). Ramayah (2006) found that Effort Expectancy positively and significantly influenced users' intention. Based on this, it is anticipated that users in the West Bank will have a higher likelihood of adopting a cryptocurrency if it is perceived as useful and requires less effort to perform tasks. Therefore, the following hypothesis was proposed and tested:

H2: Effort Expectancy has a positive influence on the behavioral intention to use cryptocurrency.

Social Influence (SI)

As humans are always subjective to the environments in which they interact socially and culturally, it is reasonable to say that social influence shapes an individual's behaviors (Jayendra and Srikanth, 2018). SI refers to the degree to which an individual perceives the opinions and beliefs of others regarding the usage of a particular technology (Venkatesh et al., 2003). SI was created using three variables from pre-existing models: subjective norms from TAM2, social factors from MPCU and images from IDT. Factors such as family, friends, mentors and peers within one's social life play an important role in shaping this influence (Rana et al., 2017). It is assumed that people frequently check with their social network before implementing new technology and their decisions may be impacted by what other people find significant (Salem, 2019). Several empirical studies have demonstrated that Social Influence has a significant positive impact on the adoption of a new technology (Moon and Hwang, 2018; Greeff, 2021). Raeisi and Behboudi (2016) and Adapa et al. (2018)

both underscored the crucial role of SI in shaping the intentions of technology adoption. Based on these findings, the following hypothesis was proposed:

H3: Social Influence has a positive influence on the behavioral intention to use cryptocurrency.

Facilitating Conditions (FC)

FC can be defined as the user's confidence in the existence of institutional support and infrastructure to aid in the use of a specific technology (Venkatesh et al., 2003). There are three main structures of FC: facilitating conditions from MPCU, behavioral control from TPB, and compatibility from IDT. When individuals have access to the necessary resources and support, they are more likely to adopt technology (Alalwan et al., 2017). Technology is only beneficial if users believe that there is a strong support system in place to help them learn how to use it. Therefore, the effectiveness of a technological use is dependent on the presence of FC in a particular setting (Canziani and MacSween, 2021). Martins et al. (2014) argued that facilitating conditions have a substantial impact on digital banking users. Therefore, these conditions enhance the availability of essential devices and knowledge required to execute quicker transactions using blockchain technology. Previous research indicated that FC influenced the adoption and use of technology (Khan et al., 2017; Chow et al., 2019). Given these findings, the following hypothesis was formulated:

H4: Facilitating Conditions have a positive influence on the behavioral intention to use cryptocurrency.

Hedonic Motivation (HM)

HM refers to the positive emotions, such as joy, pleasure and happiness, that individuals experience when using a particular technology (Venkatesh et al., 2012). These emotional responses and pleasures that result from using and adopting the technologies play a significant role in influencing individuals to accept and adopt technology (Shaw and Sergueeva, 2019). According to Al-Amri et al. (2019) and Puspanegara et al. (2024), HM has been found to significantly influence consumers' intention to invest in cryptocurrencies. The pleasure and happiness that arise from using technology have a significant influence on behavioral intention (Childers et al., 2001). Brown and Venkatesh (2005) hypothesized that HM would have a significant impact on the intention to use technology. Additionally, users who find that using blockchain technology is enjoyable, fun, and cheerful are more likely to be motivated to use it more productively. This increased engagement requires less effort and enhances the perceived value of the technology (Moon and Kim, 2001; Cheng et al., 2006). Kim and Yoo (2020) found that HM significantly influenced user acceptance of technology. Based on the findings of past research, this study hypothesizes a positive relationship between hedonic motivation and the intention to invest in cryptocurrency. Therefore, the following hypothesis was formulated:

H5: Hedonic Motivation has a positive influence on the behavioral intention to use cryptocurrency.

Price/Value (PV)

The concept of PV refers to the mental evaluation of the balance between the financial cost and the advantages of using a technology. This evaluation can result in a positive or negative PV, depending on whether the perceived benefits outweigh the monetary expenses associated with using the technology (Venkatesh et al., 2012). The willingness of users to adopt a technology tends to increase when the Price/Value exceeds the financial cost (Beh et al., 2021). Empirical evidence reveals that perceived value is a key factor in influencing customers' intentions to adopt internet banking services. Similarly, the financial benefits provided by Internet banking play a significant role in driving its adoption (Ho and Ko, 2008). Previous research has revealed that the perception of price greatly influences the intention of buyers (Eneizan et al.,

2016). Escobar-Rodríguez and Carvajal-Trujillo (2014) showed that PV had a favorable influence on the desire to utilize after substituting price savings for it. Additionally, when users believe that the benefits or value of cryptocurrency exceed its costs, this perceived value will positively influence their intention to use the technology (Venkatesh et al., 2012). Based on the above discussion, the following hypothesis was proposed:

H6: Price/value has a positive influence on the behavioral intention to use cryptocurrency.

Habit (HB)

HB can be defined as the extent to which individuals perform behaviors automatically because of previous learning (Venkatesh et al., 2012). It can be distinguished in two ways: first, as a behavior that has been previously established (Kim and Malhotra, 2005), and second, as a Behavior that an individual perceives as an automatic behavior (Lamayem et al., 2007). A recent research showed that the regular practice of habits is a significant predictor of future technology usage trends (Kim and Malhotra, 2005). HB reduces the likelihood of customer discontent by creating an emotional bond with a product through frequent use. It has also been found to positively influence individuals' intentions to use and adopt technology (Venkatesh et al., 2012). Limayem et al. (2007) explored how HB affected the continuity of information systems usage, and they showed how it moderated the relationship between intentions and information systems use. It was predicted on the idea that customers do not yet understand online Bitcoin payments well enough to regard them as routine. Sham et al. (2023), looking at consumers' acceptance of cryptocurrencies, found that they were sufficiently aware of Bitcoin as a simple online payment option that increased productivity. Roos (2015) revealed that habit was a crucial factor driving behavioral intentions to adopt Bitcoin as a payment method. On mobile banking, Win et al. (2021) found that HB was the primary element influencing consumers' behavioral intentions. These findings show that users who frequently trade and invest in cryptocurrency are likely to have a significant impact on their intention to keep using it in the future. Accordingly, the following hypothesis was formulated:

H7: Habit has a positive influence on the behavioral intention to use cryptocurrency.

Perceived Risk (PR)

The term Perceived Risk refers to the degree of insecurity and unforeseen concerns that users may have while investing in goods and services (Lim, 2003). Recent studies have investigated the relationship between perceived risk and the intention to adopt financial technology. Liébana et al. (2014) conducted a study on the adoption of new technology for payment. In their study, they highlighted the significance of the PR, noting that concerns about potential financial loss could greatly affect the adoption of payment services. According to Chen (2008), Lu et al. (2011) and Kim et al. (2010), PR could crucially impact users' trust in mobile payment systems and thereby diminish their intention to use such new payment technologies. Khan et al. (2017), in their research on online banking usage intentions, found that perceived security played a key role in shaping behavioral intentions. In the context of cryptocurrency, Mendoza-Tello et al. (2018) found that PR did not significantly affect the intention to adopt cryptocurrencies for online payments. In their study on cryptocurrency investments, Massarczyk et al. (2019) showed that investors who expected to avoid the total loss of their cryptocurrency investments were more willing to use cryptocurrencies. In contrast, investors who took on more risk in their investments typically intended to use cryptocurrencies more in order to maximize their gains. Cryptocurrencies face adoption challenges due to their value volatility, lack of operational assurance, and pricing instability. Additional issues include irreversible transactions, irretrievable keys, and wallet theft (Kubát, 2015; Ciaian et al., 2016). Given the preceding discussion, the following hypothesis was proposed:

H8: Perceived Risk has a negative influence on the behavioral intention to use cryptocurrency.

Legitimacy (LG)

LG is the generalized perception or assumption that an entity's actions are desirable, proper, or appropriate within a socially constructed framework of norms, values, beliefs, and definitions (Suchman, 1995). It involves aligning a firm's activities and outcomes with societal values, norms and expectations. For an organization to be deemed legitimate, it must engage in appropriate activities and gain acceptance from stakeholders for resource exchanges. These aspects are known as conforming and strategic legitimacy (Ashforth and Gibbs, 1990). According to Almahendra et al. (2024), LG in cryptocurrency adoption refers to the perception that an entity's actions are appropriate within societal norms and values encompassing alignment with societal beliefs (normative legitimacy), adherence to legal and regulatory standards (regulative legitimacy), and consistency with existing beliefs (cognitive legitimacy). All of these are essential for establishing cryptocurrencies as valid and trustworthy and for fostering public engagement and confidence.

There is no well-defined authority overseeing cryptocurrency systems, thus leaving a gap in the responsibility for transaction integrity. Cryptocurrencies need strict regulations to prevent money laundering and terrorism due to their anonymity and accessibility issues (Cunha et al., 2021). Bitcoin, in particular, is often used by hackers on the dark web for illicit activities such as drugs, counterfeit documents, and weapons. This study examines the extent of the legitimacy of cryptocurrency in the West Bank. Based on the previous discussion, the following hypothesis was tested:

H9: Legitimacy has a positive influence on the behavioral intention to use cryptocurrency.

Methodology

This section is devoted to the research methodology used in this study. The methodology provides a detailed description of the study design, study setting, population, sampling, and data collection tools. The section ends with the use of SPSS 22 and equations for the analysis of the collected data.

Study Design

This study employed the UTAUT2 model (see Figure 1) and used a cross-sectional design, focusing on bank employees in the West Bank. A self-administered online questionnaire was used to facilitate easy access to the sample, saving time and effort. The researchers believe that a cross-sectional approach is the most suitable for achieving the study's objectives.

Figure 1
UTAUT2 Model

Source: adapted from Venkatesh et al. (2012).

Study Setting and Timeframe

An anonymous self-administered online questionnaire was administered to bank employees in the West Bank. The West Bank has three regions: the Northern West Bank, representing 20.5% of total bank employees; the Middle West Bank, representing 66% of total bank employees; and the Southern West Bank, representing 13.5% of total bank employees. This study was conducted from April 26 to May 29, 2023.

The researchers developed a questionnaire based on the literature review and the constructs of the UTAUT2 model.

Sections of the questionnaire:

- Demographic data of the participants: gender, age, place of work, job title, academic qualification, years of bank experience and monthly income.
- Knowledge, desire to invest and participants' investments in cryptocurrency.
- Instrument of the study: proposed by Venkatesh et al. (2012) and adapted for the cryptocurrency context with 24 questions measuring the 7 UTAUT2 constructs; six questions based on scholarly articles to measure the two additional factors in the model, which is included in Table 1. Sociodemographic data were also collected for comparisons (Tables 2 and 3). A 5-point Likert scale was used, ranging from 1 (strongly disagree) to 5 (strongly agree), to minimize cognitive biases, reduce confusion for participants, and ensure high-quality data. A pilot test sample of 20 people was conducted to ensure its clarity and ease of administration and to estimate the time required to complete the questionnaire by the participants.

Table 1
Study variables

No	Variables	Items	Reference
1	Performance expectancy	4	

No	Variables	Items	Reference
2	Effort Expectancy	4	
3	Social Influence	3	Venkatesh, et al., 2003
4	Facilitating Conditions	4	
5	Hedonic Motivation	3	
6	Price/Value	3	Venkatesh, et al., 2012
7	Habit	3	
8	Perceived Risk	3	Lim, 2003
9	Legitimacy	3	Suchman, 1995

Source: own elaboration.

Table 2

Questionnaire questions on knowledge and experience about cryptocurrency among participants.

No	Questions	Answers
1	Have you heard about cryptocurrencies such as bitcoin or ethereum?	Yes/no
2	Do you have the desire to invest in cryptocurrencies?	Yes/no
3	Have you invested in cryptocurrencies before?	Yes/no
4	If yes, how much have you invested?	a. less than 1000 $
		b. 1001-5000 $
		c. 5001-10000 $
		d. above 10000 $

Source: own elaboration.

Table 3

Questionnaire questions based on the UTAUT2 model

Constructs	Items	Questions
Performance Expectancy	PE1	I find cryptocurrencies useful in my daily life.
	PE2	Using cryptocurrencies increases my chances of achieving my important tasks.
	PE3	Using cryptocurrencies increases my productivity.
	PE4	Using cryptocurrencies helps me accomplish things more quickly.
Effort Expectancy	EE1	Learning how to use cryptocurrencies is easy for me.
	EE2	My interaction with cryptocurrencies is clear and understandable.
	EE3	I find cryptocurrencies easy to use.
	EE4	It is easy for me to become skillful at using cryptocurrencies.
Social Influence	SI1	People who are important to me encourage me to use cryptocurrencies.

Constructs	Items	Questions
	SI2	People who influence my behavior encourage me to use cryptocurrencies
	SI3	People who I do value their opinions encourage me to use cryptocurrencies.
Facilitating Conditions	FC1	I have the resources (software and hardware) necessary to use cryptocurrencies.
	FC2	I have the knowledge necessary to use cryptocurrencies.
	FC3	Cryptocurrencies are compatible with the other technologies I use.
	FC4	I can get help from others when I have difficulties using cryptocurrencies
Hedonic Motivation	HM1	Using cryptocurrencies is fun.
	HM2	Using cryptocurrencies is enjoyable.
	HM3	Using cryptocurrencies is entertaining.
Price/Value	PV1	Cryptocurrencies services are reasonably priced.
	PV2	Cryptocurrencies services offer good value for money.
	PV3	At the current price, using cryptocurrencies provides good value.
Habit	HB1	The use of cryptocurrencies has become a habit.
	HB2	I am addicted to using cryptocurrencies.
	HB3	I must use cryptocurrencies.
Perceived Risk	PR1	Using cryptocurrencies is risky.
	PR2	There is too much uncertainty associated with the use of cryptocurrencies.
	PR3	Compared with other currencies/ investments, cryptocurrencies are riskier.
Legitimacy	LG1	Using cryptocurrencies is legal.
	LG2	Using cryptocurrencies does not violate the social and law standards or rules.
	LG3	Cryptocurrency has no scams or misconduct aspects.
Behavioral Intention	BI1	I intend to use cryptocurrencies in the future.
	BI2	I will always try to use cryptocurrencies in my daily life.
	BI3	I plan to use cryptocurrencies in the future.
	BI4	I predict I will use cryptocurrencies in the future

Constructs	Items	Questions

Source: own elaboration.

Study Population

The research sample comprised all bank employees in the West Bank. This study sought to determine how these bank employees' intentions to use cryptocurrency are influenced by their perceptions and attitudes toward it. These participants were chosen for their relevant knowledge, beliefs, and behaviors regarding cryptocurrency. However, the researchers excluded the participants in the pilot test (20) and the participants who provided random or illogical answers (14). These participants failed to read the questionnaire well before its completion.

Sample Size, Sampling Technique and Demographic Data

This study explores the intentions of banking sector employees in the West Bank to use cryptocurrency. This sector includes 13 major banks. Of these, seven were Palestinian and six were foreign with 378 branches. The banking sector encompasses commercial banks, Islamic banks, and investment banks. Notably, commercial banks handle over 90% of the banking operations in the West Bank. These include granting loans, capital, and deposits (PMA, 2022).

The sample size was calculated using a 95% confidence level and a 0.05 estimated sample error on either side of the proportion. The total number of bank employees in the West Bank was 5,775 (Monetary Authority and the Association of Banks in Palestine publications 2022). The number of bank employees is distributed as follows:

1) 1,185 employees were in the Northern West Bank, representing 20.5% of the total bank employees.
2) 3,809 employees in Middle of the West Bank, representing 66% of the total bank employees.
3) 781 employees were in the Southern West Bank, representing 13.5% of the total bank employees.

The Richard Geiger equation was selected for the sample size calculation due to its precision in finite populations, especially with expected non-responses. The equation adjusts for the population size, optimizing the sample size and reducing costs. Using a 95% confidence level and a 5% margin of error (Z = 1.96, d = 0.05), the equation balances precision and reliability. With a conservative estimate (p = 0.50) and a 15% increase for non-responses, it ensures a representative sample. The Geiger equation is widely used in social science and behavioral studies for its adaptability and accuracy. According to Israel (1992), such formulas are crucial for accurate survey estimates while managing resources.

$$n = \frac{\left(\frac{z}{d}\right)^2 \times (0.50)^2}{1+\frac{1}{N}\left[\left(\frac{z}{d}\right)^2 \times (0.50)^2 - 1\right]}$$

d = 0.05 z = 1.96 N = population n = sample size

Based on the above equation, the minimum calculated sample was 361 employees used to assess the behavioral intention to use cryptocurrency. To compensate for the non-responding employees, we added an extra 54 employees (≈15%) to the calculated sample. A total of 415 soft copies of the questionnaire were distributed (the minimum number required and the extra 15%). A total of 394 participants completed and answered the questionnaire (response rate was 94.9%) 14 copies of the questionnaire were excluded because of random and illogical answers. The number of valid copies of the questionnaire for analysis was 380.

The study participants were selected using a convenient sampling technique. However, great care was taken to select bank employees in the West Bank from all districts that are equal to their proportion in the total eligible study population through an online questionnaire. This approach allowed the researchers to reach a broad sample of participants across various banks.

Additional Equations for the Analysis

Most of the statistical analysis was done using SPSS 22. However, some additional equations were used for the analysis:

- Average Variance Extracted (AVE) = $\frac{\Sigma \lambda^2}{N}$

  (Σ Standardized factor loading²)/N, where N is the number of indicators of the construct.

- Composite Reliability (CR) = $\frac{(\Sigma \lambda)^2}{(\Sigma \lambda)^2+\Sigma(1-\lambda^2)}$

  (Σ Standardized factor loading) ² / {(Σ Standardized factor loading) ² + Σ (1- Standardized factor loading²)}

- HTMT Ratio$(Y_1\ Y_2)$ = $\frac{\text{mean } (R_{Y1Y2})}{\sqrt{\text{mean } (R_{Y1Y1}).\ \text{mean } (R_{Y2Y2})}}$

- The Fornell-Larcker criterion states that for a construct to have adequate discriminant validity, the square root of its AVE must be greater than its correlations with other constructs.

Data Analysis

Table 4 provides a summary of the hypotheses tested in the study. It gives an overview of the key concepts. A more detailed discussion of the hypotheses and their development is provided in Section 3: Study Variables and Hypotheses.

Table 4

Summary of the study hypothesis

Hypothesis	Variable	Influence on Behavioral Intention to Use Cryptocurrency
H1	Performance Expectancy	Positive
H2	Effort Expectancy	Positive
H3	Social Influence	Positive
H4	Facilitating Conditions	Positive
H5	Hedonic Motivation	Positive
H6	Price/Value	Positive
H7	Habit	Positive
H8	Perceived Risk	Negative
H9	Legitimacy	Positive

Source: own elaboration.

Demographic Data Analysis

Based on the analysis of the questionnaire responses and the demographic data included in Tables 5 and 6, the study found that 95.8% of the participants were familiar with cryptocurrency. Of these, 30.3% expressed an interest in investing in it. However, only 8.4% had actually invested. Of the investors, 84.3% were males with an average age of 35. Very few investors were over 45 years old. Additionally, 78.1% of those who had invested resided in the Middle West Bank. In terms of job title, 71.8% of investors were employees.

Regarding education, 75% of the investors held a bachelor's degree. Among those with more than 20 years of experience, only a small percentage had invested in cryptocurrencies. Approximately 84.3% of investors had less than 20 years of experience. Income levels showed that 68% of investors were in the high-income bracket. Overall, the data shows that young males with a high income were the most likely to invest in cryptocurrency given its high-risk nature.

Table 6 shows that 71.8% of the study participants were males. In terms of age, 78.7% of the participants were under 45 and 21.3% were over 46. The Middle West Bank accounted for the largest share of participants: 66.3% of bank employees. The job title distribution showed that 84.7% of the participants were ordinary employees. On education, 77.6% of the participants had a bachelor's degree. The experience level was fairly consistent across the board, with employees having 11-15 years of experience and making up 30.3% of the participants, which was slightly more than the other groups. Those with less than 5 years of experience had the smallest representation. As for income, most employees earned more than $ 1,000, comprising 65.8% of the participants, followed by 31.1% with a moderate income of $300-$1,000. A small percentage had a monthly income under $300.

Table 5

Knowledge and experience about cryptocurrency among participants.

Questions	Answer	Frequency (%)
Knowledge about cryptocurrency	Yes	364 (95.8%)
	No	16 (4.2%)
Desire to invest in cryptocurrency	Yes	115 (30.3%)
	No	265 (69.7%)
Investment in cryptocurrency before	Yes	32 (8.4%)
	No	348 (91.6%)

Source: own elaboration.

Table 6

Demographic characteristics

Variable	Description	Frequency	Percentage
Gender	Male	273	71.8%
	Female	107	28.2%
Age	Less than 25 years	22	5.8%
	26-35 years	123	32.4%
	36-45 years	154	40.5%
	46-55 years	57	0,15
	Above 56 years	24	6.3%
Place of work	Northern West Bank	78	20.5%
	Middle West Bank	252	66.3%
	Southern West Bank	50	13.2%
Job title	Manager	18	4.7%
	Head of the Department	40	10.5%
	Employee	322	84.7%
academic qualification	High school	19	0,05

Variable	Description	Frequency	Percentage
	Diploma	50	13.2%
	Bachelor's degree	295	77.6%
	Master's degree	16	4.2%
Years of bank experience	Less than 5 years	33	8.7%
	6-10 years	96	25.3%
	11-15 years	115	30.3%
	16-20	63	16.6%
	more than 20 years	73	19.2%
Monthly income	Limited (less than $ 300)	12	3.2%
	Medium ($300-1000)	118	31.1%
	High (More than $ 1,000)	250	65.8%

Source: own elaboration.

Modeling Analysis: Framework

A confirmatory factor analysis (CFA) was conducted using SPSS 22 to evaluate the measurement model including convergent validity, discriminant validity, and internal consistency of the constructs. To assess convergent validity, the researchers measured factor loadings for item reliability, composite reliability (CR) for each construct, and average variance extracted (AVE) (Anderson and Gerbing, 1988). In Table 7, the standardized factor loading values varied from 0.792 to 0.949, thus exceeding the minimum required value of 0.50 (Gefen et al., 2000). All of the composite reliability ratings exceeded the 0.70 criterion, indicating the internal consistency of the latent components (Heinzl et al., 2011). The percentage of the latent variable's variance, explained in relation to the random measurement error, is determined by the average variance extracted (AVE) values, ranging between 0.655 for Effort Expectancy and 0.891 for Perceived Risk. All of the variables were above the minimum threshold of 0.50 (Fornell and Larcker, 1981). Most predictors in this study, as included in Table 7, were highly reliable. The convergent validity results indicate that the latent constructs were well represented by the observed variables, as they were correlated with each other within the model.

Table 7

Results for the measurement model.

Variable	X	STD	CR	AVE
Performance Expectancy	PE1	0.848	0.908	0.712
	PE2	0.847		
	PE3	0.838		
	PE4	0.844		
Effort Expectancy	EE1	0.821	0.884	0.655
	EE2	0.802		
	EE3	0.823		
	EE4	0.792		
Social Influence	SI1	0.919	0.938	0.833
	SI2	0.914		

Variable	X	STD	CR	AVE
	SI3	0.906		
Facilitating Conditions	FC1	0.801	0.885	0.657
	FC2	0.802		
	FC3	0.827		
	FC4	0.812		
Hedonic Motivation	HM1	0.905	0.931	0.818
	HM2	0.899		
	HM3	0.911		
Price/Value	PV1	0.885	0.916	0.784
	PV2	0.882		
	PV3	0.890		
Habit	HB1	0.913	0.941	0.840
	HB2	0.916		
	HB3	0.922		
Perceived Risk	PR1	0.936	0.961	0.891
	PR2	0.948		
	PR3	0.949		
Legitimacy	LG1	0.922	0.947	0.856
	LG2	0.934		
	LG3	0.920		
Behavioral Intention	BI1	0.808	0.895	0.679
	BI2	0.829		
	BI3	0.822		

Source: own elaboration.

For the evaluation of discriminant validity, the Heterotrait-Monotrait and Fornell-Larcker criterion (Henseler et al., 2015) were used as an estimator of the correlation between the two latent variables. Table 8 validates the discriminant validity of the latent variables utilized; the coefficients in all cases presented levels below 0.90, as required by the Heterotrait-Monotrait indicator. According to the Fornell-Larcker criterion, which involves holding a comparison between the square root of the average variance extracted (AVE), for each construct, with the construct's correlations with the other constructs. For a construct to have adequate discriminant validity, the square root of its AVE must be greater than its correlations with the other constructs. All of the constructs included in Table 9 meet this criterion. This outcome confirms that each construct is sufficiently unique and that the measurement items are adequately set apart from other ideas.

Table 8

"Heterotrait-monotrait ratios"

	PE	EE	SI	FC	HM	PV	HB	PR	LG	BI
PE										
EE	0.655									
SI	0.363	0.384								
FC	0.592	0.731	0.420							

	PE	EE	SI	FC	HM	PV	HB	PR	LG	BI
HM	0.390	0.342	0.266	0.398						
PV	0.311	0.344	0.290	0.397	0.460					
HB	0.258	0.258	0.105	0.274	0.253	0.401				
PR	−0.119	−0.15	0.013	−0.158	−0.213	−0.266	−0.191			
LG	0.236	0.266	0.089	0.280	0.293	0.285	0.221	−0.282		
BI	0.529	0.561	0.474	0.541	0.477	0.463	0.213	−0.174	0.341	

Source: own elaboration.

Table 9

Fornell-Larcker criterion

	PE	EE	SI	FC	HM	PV	HB	PR	LG	BI
PE	0.844									
EE	0.633	0.809								
SI	0.351	0.371	0.912							
FC	0.572	0.698	0.404	0.810						
HM	0.379	0.332	0.259	0.391	0.904					
PV	0.302	0.333	0.281	0.383	0.447	0.885				
HB	0.247	0.247	0.100	0.267	0.243	0.385	0.917			
PR	−0.115	−0.145	0.013	−0.186	−0.207	−0.258	-.183	0.944		
LG	0.256	0.256	0.086	0.270	0.284	0.276	0.211	−0.272	0.925	
BI	0.589	0.541	0.457	0.525	0.434	0.448	0.204	−0.168	0.328	0.824

Source: own elaboration.

For evaluating the internal consistency of the constructs, the researchers calculated a Cronbach's alpha, which equals 0.937. Table 10 shows the excellent internal consistency. That is to say, the scale items were highly correlated and they reliably measured the same construct. This high reliability enhances the validity and robustness of the study findings. In addition, the researchers employed the multiple linear regression analysis at 95% confidence intervals. The analysis revealed a good model fit, which is included in Table 11 ($P<.001$, adjusted $R^2 = 0.506$ and $R^2 = 0.518$). This shows that the model explains 51.8% of the variance in the dependent variable and reflects moderate to strong explanatory power, capturing a significant portion of the variability and indicating the model's effectiveness in predicting the outcome.

Table 10

Reliability Statistics

Cronbach's Alpha	N of Items
0.937	34

Source: own elaboration

Table 11

Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	0.720	0.518	0.506	3.21327	0.518	44.212	9	370	0.000	1.376

Source: own elaboration.

The researchers also performed factor extraction to identify the key factors driving the patterns, relationships, and variance in the data. The results included in Table 12 indicate a high level of adequacy and appropriateness for the dataset. The Kaiser-Meyer-Olkin (KMO) measure of 0.831 confirms that the data was suitable for factor analysis, while the Chi-square statistic (929.58 with 36 df) suggested that the correlations among variables were meaningful and justified the use of factor analysis. These results support the validity of the factor extraction process and the interpretation of the underlying dimensions in the data. The extraction sums of the squared loadings, included in Table 13, showed that the first two factors explained 53% of the total variance.

Table 12

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.831
Bartlett's Test of Sphericity	Approx. Chi-Square	929.584
	df	36
	Sig.	.000

Source: own elaboration.

Table 13

Total variance explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% of the variance	Cumulative %	Total	% of the variance	Cumulative %	Total
PE	3.501	38.897	38.897	3.501	38.897	38.897	3.032
EE	1.275	14.162	53.059	1.275	14.162	53.059	2.428
SI	0.875	9.719	62.778				
FC	0.783	8.703	71.482				
HM	0.718	7.979	79.461				
PV	0.643	7.141	86.602				
HB	0.507	5.634	92.236				
PR	0.418	4.650	96.885				
LG	0.280	3.115	100.000				

Source: own elaboration

The researchers conducted a collinearity analysis. This analysis indicates that multicollinearity is not an issue. Table 14 shows how the tolerance values varied from 0.421 to 0.867, and they all exceeded the minimum needed value of 0.1. All variance inflation factors (VIF) were between 1.154 and 2.378. All were found to be

well below the threshold of 10, demonstrating that the predictor variables were sufficiently independent and did not show severe multicollinearity.

Table 14

Coefficients

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics		
Model		**B**	**Std. Error**	**Beta**	**t**	**Sig.**	**Tolerance**	**VIF**
1	Constant	−0.229	0.942		-.243	.808		
	PE	0.280	0.047	0.294	5974	0.000	0.536	1865
	EE	0.125	0.052	0.132	2381	0.018	0.421	2378
	SI	0.258	0.052	0.205	4993	0.000	0.774	1292
	FC	0.047	0.053	0.049	0.889	0.375	0.437	2289
	HM	0.123	0.051	0.104	2413	0.016	0.702	1425
	PV	0.218	0.055	0.176	3948	0.000	0.654	1528
	HB	−0.084	0.060	−0.056	−1403	0.162	0.815	1227
	PR	−0.027	0.050	−0.021	−0.530	0.597	0.867	1154
	LG	0.162	0.055	0.116	2934	0.004	0.826	1211

a. Dependent Variable: BI

Source: own elaboration.

In summary, the comprehensive assessment of the measurement model's reliability and validity underscores the robustness of the latent constructs. It provides clear evidence of their distinctiveness demonstrating solid discriminant validity while also emphasizing on how well they correlate with the observable variables showing their great convergent validity. These results provide a strong foundation for the study conclusions and analysis.

For evaluation of the chain relation in the cause connecting constructs, using the structural model (Hair et al., 2010), the researchers calculated the relationship between the dependent and independent variables using the multiple linear regression analysis at 95% confidence intervals. This demonstrates the average beta coefficient (b), statistics T, and p-value.

The SEM results included in Table 15 the guidelines of H1, H2, H3, H5, H6, and H9 were significant. These guidelines are Performance Expectancy, Effort Expectancy, Social Influence, Hedonic Motivation, Price/Value and Legitimacy. They were significantly correlated with user intention to use cryptocurrency among bank employees in the West Bank. Performance Expectancy (β = 0.294, p < 0.001) was considered a good predictor, followed by Social Influence (β = 0.205, p < 0.001), Price/Value (β = 0.176, p < 0.001), Legitimacy (β =0.116, p=0.004), Hedonic Motivation (β =0.104, p=0.016) and Effort Expectancy (β =0.132, p=0.018). Pertaining to H4, H7, H8, the Facilitating Conditions (β =0.049, p=0.375), Habit (β =-0.056, p=0.162), and Perceived Risk (β −0.021, p=0.597) showed that they did not significantly influence bank employees' intention and decision to use cryptocurrency in the West Bank.

Table 15
Results and hypothesis testing

	β	t-value	p-value	Decision
Performance Expectancy → Behavioral Intention	0.294	5974	<0.001	Accepted
Effort Expectancy→ Behavioral Intention	0.132	2381	0.018	Accepted
Social Influence→ Behavioral Intention	0.205	4993	<0.001	Accepted
Facilitating Conditions→ Behavioral Intention	0.049	0.889	0.375	Rejected
Hedonic Motivation→ Behavioral Intention	0.104	2413	0.016	Accepted
Price/Value→ Behavioral Intention	0.176	3948	<0.001	Accepted
Habit→ Behavioral Intention	−0.056	−1403	0.162	Rejected
Perceived Risk→ Behavioral Intention	−0.021	−0.530	0.597	Rejected
Legitimacy→ Behavioral Intention	0.116	2934	0.004	Accepted

a. Dependent Variable: BI
Source: own elaboration.

Results And Discussion

The framework of the model, according to UTAUT2, provides an empirical foundation for many constructs that influence users' intentions and cryptocurrency usage. The behavioral intention of users is influenced by many factors, including Performance Expectancy, Effort Expectancy, Social Influence, Hedonic Motivation, Price/Value and Legitimacy. Concerning R^2, 51.8% of the predictability of user intention was assigned by this model.

Results of data analysis showed that Performance Expectancy (H1) had a significant and positive impact on the intention and decision to use cryptocurrency among bank employees in the West Bank. This result is consistent with the related literature, which found that the performance expectations played a significant role in the adoption of new technologies. For instance, Venkatesh et al. (2003) and Davis, (1989) found that people were more willing to accept new technologies when they thought that their job performance would improve and offer noticeable benefits. This finding is consistent with those of Khazaei (2020) and Alalwan et al. (2019). It stressed the role of Performance Expectancy in encouraging the adoption of new technologies. In the context of the West Bank, its impact on cryptocurrency adoption was heightened by the local economic and technological context influencing bank employees' perceived benefits. Future research should examine these contextual factors and the interaction of variables, like ease of use and social influence, with performance expectancy to provide a better understanding of cryptocurrency adoption drivers and inform regional strategies.Top of FormBottom of the Form

The study indicates that Effort Expectancy (H2) had a significant and positive influence on the intention to use cryptocurrency among bank employees in the West Bank. This study emphasizes that it is crucial to consider how a cryptocurrency's perceived adoption effort and ease of use can impact its adoption in a specific context. This finding concurs with findings in other related research. Effort anticipation played a significant role in the adoption of new technologies. Venkatesh et al. (2003) found that users' acceptance of new technologies, especially financial technologies, was significantly influenced by effort expectation or perceived ease of use. The results are also consistent with findings in several studies in which it was found that Effort Expectancy was significant. These studies include Alalwan et al. (2017); Raman and Don (2013). However, the findings do not concur with other studies that indicated less significance in Effort Expectancy.

Investigations conducted by Gunawan and Novendra (2017) and Gillies et al. (2020) have proposed that Social Influence and Performance Expectancy might have a greater impact on cryptocurrency adoption than Effort Expectancy. These studies indicate that, while ease of use is a key factor, other elements may be more influential depending on the particular circumstances. The positive influence of Effort Expectancy in the West Bank reflects regional factors such as technological familiarity and user support quality, thus highlighting the importance of context in technology adoption factors. This shows that ease of use can be a crucial determinant in environments where users are still becoming accustomed to new technologies. Future research should examine how Effort Expectancy interacts with factors like Performance Expectancy and Social Influence to gain a better and more comprehensive understanding of cryptocurrency adoption and refine strategies for different regions.

Social influence (H3) had a significant and positive influence on the intention to use cryptocurrency among bank employees in the West Bank. This finding shows the influence of social factors on technology adoption, including peer endorsements and organizational norms. The results are consistent with previous research, which identified social influence as a key factor in determining the acceptance of new technologies. Venkatesh et al. (2003) showed how social influence shaped people's beliefs and behaviors, which had a significant effect on technology adoption. Davis et al. (1989) also pointed out that social factors could raise the perceived value of new technology, which in turn affects how widely the technology is adopted. The findings are consistent with those by Wang et al. (2009); Khazaei (2020); Alomari and Abdullah (2023), who found that Social Influence was significant on the intention to use technology. However, this conclusion does not concur with some studies that showed that social influence was less significant with regard to the intent to use a cryptocurrency. Ebizie et al. (2022) and Chotiyaputa (2023) confirm that factors like Performance Expectancy and Facilitating Conditions may play a more dominant role than Social Influence in driving cryptocurrency adoption. The significant role of Social Influence in the West Bank reflects regional dynamics such as strong community ties and the importance of peer recommendations. This highlights the need to consider local social contexts when evaluating cryptocurrency adoption. Future research should explore how Social Influence interacts with factors such as Perceived Risk, Performance Expectancy, and Effort Expectancy to gain deeper insights and develop more effective region-specific strategies.

This study also revealed that the Facilitating Conditions (H4) did not significantly impact the intention to use cryptocurrency among bank employees in the West Bank; therefore, the finding was consistent with other research findings. That is, the Facilitating Conditions were less significant. Sheel and Nath (2020) and Almajali et al. (2022) argued that while Facilitating Conditions were relevant, they were not significant in influencing the intent to use cryptocurrency and may not be the primary drivers of adoption when compared to other factors. However, this study results failed to prove the hypothesis and some literature which advocated their importance. Venkatesh et al. (2003) stressed that access to resources and infrastructure is crucial for effective technology adoption. The study result is not consistent with the results arrived at by Arias-Oliva et al. (2019) and Arias-Oliva et al. (2021), who found that Facilitating Conditions had a significant and positive impact on the intention to use cryptocurrencies and highlighted that supportive infrastructure and resources could drive technology adoption. The limited impact of Facilitating Conditions in the West Bank may reflect regional characteristics, such as the greater importance of perceived risk and social influence. This underscores the need to consider multiple factors in technology adoption evaluations.

Regarding H5, the study found that Hedonic Motivation significantly and positively influenced the intention to use cryptocurrencies among bank employees in the West Bank. Specifically, the enjoyment

and excitement of cryptocurrency trading were key drivers for adoption, highlighting that intrinsic pleasure and the novel experience of using cryptocurrencies enhanced users' intention to engage with the use of cryptocurrency. These findings are consistent with Herrero et al. (2017) and Mbeya and Mofokeng (2023) findings. They also found that the intrinsic enjoyment, excitement, and pleasure associated with cryptocurrency significantly boosted users' intentions to adopt these technologies. However, some researchers indicated that Hedonic Motivation did not always be a significant predictor of cryptocurrency adoption among users. Wijaya and Balqiah (2022) wrote that Hedonic Motivation had a direct but non-significant effect on the intention to conduct cryptocurrency transactions. This indicates that it did not strongly influence cryptocurrency use. Chotiyaputa (2023) found that Hedonic Motivation had an insignificant effect on users' intent and behavior, suggesting that it was less important for cryptocurrency adoption. Users' familiarity with basic features may reduce the significance of hedonic aspects. These findings emphasize the need to explore various motivational factors in cryptocurrency adoption and call for further research on how different motivations affect usage.

On H6, the study proved that Price/Value significantly and positively influenced the intention to use cryptocurrencies among bank employees in the West Bank. This is consistent with the results of Jegerson et al. (2023); Puspanegara et al. (2024), who found that the effect of Price/Value on the intention to use cryptocurrency was statistically significant. This means that changes in the perceived financial value of cryptocurrency, such as its potential for high returns or low transaction costs and reasonable price, meaningfully influence the likelihood that bank employees would choose to use cryptocurrency. This finding however does not concur with findings in other research, which showed that Price/Value had less influence on users' intentions to use cryptocurrencies. Wijaya and Balqiah (2022) and Mbeya and Mofokeng (2023) found that the impact of Price/Value on cryptocurrency adoption was less pronounced than expected, suggesting that price volatility and personal financial considerations might reduce its significance. Additionally, they noted that Hedonic Motivation and Habit may have a greater influence on adoption intentions. This discrepancy highlights the need for further investigation into the varying impacts of Price/Value and other factors on cryptocurrency adoption.

Habit (H7) had an insignificant impact on the intention to use cryptocurrency among bank employees in the West Bank. In contrast, previous research, such as the study on mobile learning by Moorthy et al. (2019), showed that Habit was a key factor in influencing users' adoption of new technology. Mbeya and Mofokeng (2023) also revealed that Habit significantly and positively influenced Behavioral Intention to use Bitcoin for online payments. This indicates that established routines and habits are not the major drivers of cryptocurrency adoption. Further research is needed to identify other factors influencing cryptocurrency use.

According to the researchers' framework and data analysis, the results indicate that Perceived Risk (H8) did not significantly affect the intention to use cryptocurrency among bank employees in the West Bank. This is consistent with Jegerson et al. (2023) study which found that concerns about security and financial loss did not notably impact the adoption intentions. These findings indicate that Perceived Risk was not a major factor in this demographic area, underscoring the need for further research to look into other influencing factors. These findings contradict Walton and Johnston (2018) and Wijaya and Balqiah (2022) findings. In their study, they found that the Perceived Risk significantly influenced the intention to use cryptocurrency. This demonstrates that addressing these risks is essential for improving cryptocurrency adoption.

The study highlights a significant positive influence of Legitimacy (H9) on the intention to use cryptocurrencies among bank employees in the West Bank. This finding supports broader technology adoption theories that highlight the role of legitimacy in shaping attitudes toward new technologies. It aligns with the Almahendra et al. (2024) findings. In their study, they found that Legitimacy significantly affected public engagement in the Indonesian crypto market where over 17 million traders and a market value exceeding 720 million USD attested its impact. In the West Bank, where financial and technological systems face distinct socio-political challenges, legitimacy is especially crucial. Bank employees, who are well-versed in financial matters, are particularly sensitive to the credibility of cryptocurrencies. If cryptocurrencies receive government legislation, their willingness to adopt them could signal broader adoption trends in similar contexts. The study also highlights the need for further research into how legitimacy is constructed across different contexts. Understanding the specific mechanisms, such as government policies and public perception, that contribute to cryptocurrency legitimacy is essential for enhancing adoption.

From a theoretical perspective, this research underscores the importance of incorporating technology-specific variables into the UTAUT2 model to better assess Behavioral intentions. The study validates the influence of Performance Expectancy, Effort Expectancy, Social Influence, Hedonic Motivation, Price/Value, and Legitimacy on cryptocurrency adoption and thus demonstrates the model's relevance in understanding technology acceptance, especially among bank employees in the West Bank.

The study has offered several practical implications to operate the cryptocurrencies more successfully. First, policymakers should prioritize creating a regulatory framework for cryptocurrencies to increase their legitimacy. When cryptocurrencies are officially recognized and supported by government policies, bank employees are more likely to adopt them, leading to broader adoption across the financial sector. In emerging markets, like the West Bank, developing cost-effective mining programs and improving infrastructure can reduce cryptocurrency prices, boosting user intent and adoption.

Second, financial institutions should emphasize the practical benefits of cryptocurrencies, such as faster transactions, lower costs, and improved job performance, to make them more appealing to bank employees. Training programs that highlight these advantages can further encourage adoption by demonstrating how cryptocurrencies can enhance efficiency and reduce costs in daily operations. Emphasizing these benefits would particularly appeal to high-income males aged 26 to 45, who are most interested in investment, as indicated in Tables 5 and 6.

Third, the Effort Expectancy is critical. Financial institutions should focus on creating user-friendly platforms and provide support to make cryptocurrency adoption less intimidating for employees. Clear instructions and accessible training will help ease the transition.

Fourth, bank employees in the West Bank are influenced by peers and social networks. Policymakers and financial institutions should foster peer-to-peer endorsement and create communities of practice to promote cryptocurrency adoption. Social programs and initiatives can increase confidence and willingness to try new technologies.

Fifth, to enhance hedonic motivation, cryptocurrency platforms should offer engaging features such as gamification and interactive interfaces. Financial institutions should highlight the fun and rewarding aspects and showcase success stories and user testimonials. Workshops should be devoted to both the technical and enjoyable elements of cryptocurrencies to attract users.

Sixth, financial institutions should also highlight the economic values of cryptocurrencies, such as lower fees and potential for high returns, to attract new users. Offering clear comparisons between cryptocurrencies and traditional financial systems would help users make informed decisions.

Conclusion

The statistical analysis validates that the extended UTAUT2 model, in addition to incorporating the variables such as Perceived Risk and Legitimacy, effectively measures the behavioral intention to use cryptocurrencies among bank employees in the West Bank. This study revealed that PE, EE, SI, HM, PV and LG significantly impacted the intention to adopt cryptocurrencies. However, FC, HB, and PR did not significantly affect adoption in this context. These results highlight the importance of developing targeted strategies to improve cryptocurrency legitimacy, showcase its performance benefits, leverage social influence, and address both hedonic and financial considerations to drive adoption. This research enriches our understanding of cryptocurrency acceptance in regional contexts and underscores the significance of contextual factors in technology adoption.

In summary, these findings show that the unique economic, technological, and social contexts of the West Bank play an essential role in shaping user intentions toward cryptocurrency adoption. This study contributes to the growing body of literature on technology adoption by validating the UTAUT2 model in the context of cryptocurrency use among bank employees in the West Bank. It builds upon the work of Venkatesh et al. (2003) and Davis (1989), who highlighted the importance of Performance Expectancy, Effort Expectancy and Social Influence in technology acceptance. Our findings confirm that users in the West Bank are more likely to adopt cryptocurrencies if they perceive them as beneficial to job performance and easy to use. Furthermore, it is important to emphasize the significant role of Social Influence in shaping the intention to use technology, which is consistent with Alomari and Abdullah (2023) and Kim et al. (2022) findings. This study found that Hedonic Motivation significantly impacted the intention to adopt cryptocurrencies among users in the West Bank, with the pleasure and happiness from using technology strongly influencing Behavioral intention. This is similar to the findings in previous studies by Puspanegara et al. (2024); Mbeya and Mofokeng (2024). Furthermore, the study found that Price/Value positively influenced bank employees in the West Bank to adopt cryptocurrencies when perceived benefits outweighed the costs driving the intention to use cryptocurrency. This finding is consistent with Restuputri et al. (2023) finding. The study recommends the creation of a supportive environment for cryptocurrency adoption. Policymakers and financial institutions should enhance Legitimacy through regulation and support. Promoting benefits, like lower transaction costs and efficiency along with user-friendly platforms, Social Influence, and economic and hedonic benefits, will be crucial for encouraging adoption, especially in regions like the West Bank. However, the study revealed that the Facilitating Conditions and Perceived Risk were insignificant factors for cryptocurrency adoption among bank employees in the West Bank. This finding does not concur with the Puspanegara et al. (2024) finding. They found them to be significant factors in cryptocurrency adoption. Additionally, the study indicates that habitual behavior may not be a major driver for cryptocurrency adoption among bank employees in the West Bank. This is not consistent with Restuputri et al. (2023) finding. In their study, Habit was found to be a significant factor in adoption. These discrepancies underline the need for more context-specific research to better understand the complex factors influencing cryptocurrency adoption in different regions.

Limitations And Future Research Agenda

All results were based on self-administered data, thus making it liable to self-desirability bias. However, it is unlikely that participants would spend time giving unreliable and biased answers given their level of professionalism and anonymity of the questionnaire.

Another limitation that we should consider is related to focusing specifically on bank employees. This means that our findings may not fully represent other segments of the population. While the researchers discussed and justified this decision, it would be beneficial for future studies to explore cryptocurrency acceptance among different groups, thus offering a more comprehensive understanding of its societal impact. Additionally, it is worth noting that this research was limited to the West Bank. Assuming the questionnaire had a broader geographical scope or was being conducted in another country, the results might have varied. This demonstrates that further investigation across different regions could provide valuable insights into cryptocurrency acceptance on a global scale. Concerning the variables of the studied model, other variables could be added in order to have a better understanding of the behavioral use of cryptocurrencies.

Study Contributions

This study is expected to make several significant contributions to the field of cryptocurrency adoption, particularly within the context of bank employees in the West Bank.

First, this study has extended the UTAUT2 model by incorporating additional variables such as Perceived Risk and Legitimacy, thus enhancing its ability to predict behavioral intentions toward cryptocurrency use.

Second, this study has provided a detailed analysis of how Performance Expectancy, Effort Expectancy, Social Influence, Hedonic Motivation, Price/Value, and Legitimacy significantly impacted the intention to adopt cryptocurrencies, thus offering new insights into the factors driving adoption in this specific regional context.

Third, this study has offered practical implications for increasing cryptocurrency adoption by emphasizing the need to enhance legitimacy, demonstrate clear value, leverage social influence, and address both hedonic and financial considerations. These findings are particularly relevant to the development of targeted strategies that can improve the integration of cryptocurrencies in emerging markets.

Lastly, this study has identified gaps for future research, including the need to explore cryptocurrency acceptance across diverse demographic groups and geographic regions and the need to consider additional variables to further understand Behavioral intentions. This comprehensive approach contributes to a deeper understanding of cryptocurrency adoption and provides a foundation for future research and practical applications.

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