FACTORS AFFECTING ADOPTION OF CRYPTOCURRENCY IN PAKISTAN: AN APPLICATION OF UTAUT2 MODEL

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Abstract

Although cryptocurrencies and blockchain technology have revolutionized numerous industries, there is still a long way to go before they are widely accepted on an individual level. This study attempts to investigate the variables affecting Pakistani individuals' willingness to use blockchain-based cryptocurrencies. Through the incorporation of external factors like trust and elements from the Unified Theory of Acceptance and Use of Technology2 (UTAUT 2) construct including performance expectancy, facilitating conditions, effort expectancy, social influence, and hedonic motivation. 250 participants took part in a study using SPSS to determine their behavior intentions towards cryptocurrencies. The Finding of the results indicates that performance expectancy, social influence, hedonic motivation and Trust have strong significant relationship with Behavior intention to adopt cryptocurrency. On the other side facilitating condition show weak significance with Behavior intention and effort expectancy have no significant relationship with intention to use. Furthermore, this research also highlights on numerous factors such as institution, importance and further research in domain.

Keywords*:* Cryptocurrency, Blockchain Technology, Behavioral Intention, UTAUT2 Model

INTRODUCTION

The digitalization of financial services and products during the past 20 years has been marked by significant advancements in theory and real-world applications. New financial technology has emerged, and financial institutions have provided new infrastructures, products, and services with the aim of boosting corporate productivity and enhancing competitiveness. One of the financial services is Cryptocurrency, which is not a new novel phenomenon at this point. The rapidly growing cryptocurrency market's activity is a good example of how money is being dematerialized, along with other digital payment methods like mobile wallets (on smartphones and smartwatches), money transfers via mobile payment service apps and QR codes, jazz cash, easy paisa, and online-based purchases (using browsers or apps). Since 2009, substantial improvements have been seen in payment systems like easy paisa, showing that Pakistan has a lot of room to expand in terms of the adoption of cryptocurrencies (Afzal & Asif, 2019). The benefits of cryptocurrencies, including as the unrestricted transfer of money around the world and income prospects, have the potential to aid Pakistan's economic growth. But it's important to be aware of the hazards involved (Gul. et al., 2023).

In the recent era of digital currencies, cryptocurrency has received a lot of attention since its creation by Nakamoto in 2008. Cryptocurrency has caused concerns among investors, the IT sector, the media, and social media (Urquhart & Yarovaya, 2020). Because of its design, Bitcoin offers a number of unique advantages, such as a peer-to-peer network, architecture without government, and low transaction costs. This enables the direct transmission of electronic payments from one party to another without the intervention of any third parties, such as the government or banks (Mungoli, 2023). Compared to other financial assets, Bitcoin has a number of distinctive characteristics because it is not connected to any

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higher authority, for instance, a government, a financial organization, or the foundational entity commodity. Since Bitcoin does not have a physical form, its value is based on the safety of the computer programming that allows it to keep record of all buyer and seller transactions. Moreover, the technology has intended to support a maximum of 21 million Bitcoins in total. No more new Bitcoins will be able to be created after then. Mining nodes will no longer be compensated for their effort after the 21 million maximums has been reached. Currently, it is hoped that adoption will expand more widely and that nodes will get compensation in the form of transaction fees set by the paying party. One more study by Mukhopadhyay et al. (2016) emphasizes the significance of cryptocurrencies as essential financial software systems in their study. A secure distributed ledger data structure is used by these digital currencies, and mining is crucial to their operation. Transaction records are added to the distributed ledger, often known as the Blockchain, as part of the mining process.

Ward and Rochemont (2019), due to issues in cryptocurrency, many Central Banks from many nations have realized that they too must advance and think to support this change and adopt new technology. Because, if a private e-money issuer started to dominate payments in a country and there was a noticeable movement away from the fiat currency, the central bank would be difficult to implement monetary policy. In light of this, Central Banks are attempting to realize the economic and financial aspects of creating their own digital currency. Engert and Fung (2017) analyses the potential drivers of central bank introduction of a digital currency. They also consider the implications of such a digital currency and investigate CBDCs that differ significantly from the benchmark model.

Cryptocurrency and Pakistan

Crypto currency in Pakistan gaining popularity day by day, especially after covid 19, the usage of Internet increase during pandemic, due to this many people get to know about cryptocurrency. The first cryptocurrency launched in 2015 named PakCoin. The government and state Bank of Pakistan restricting the trading and mining of virtual currencies in April 2018; However, Bitcoin and other cryptocurrency mining were booming in Pakistan. In addition, we cannot deny the fact that there is a huge potential growth in Pakistan regarding cryptocurrency (Hong & Zhang, 2023). Further, implementation of learning about these technologies (Blockchain, Al, IOT and web 3.0) there is one institute in Pakistan who initiated this step named Presidential initiative for Artificial intelligence and Computing (PIAIC).

Research Objectives

- The primary objective of this study is to examine the impact of various factors, which influence an individual behavior regarding adoption of cryptocurrency in Pakistan.
- This study setting a theoretical foundation by applying the UTAUT2 model, taking variable such as performance expectancy, effort expectancy, social influence, facilitating condition, Hedonic motivation, and with additional construct which is not direct part of UTAUT2, is trust.
- The scope of this study is to measure the impact of the various variables, which will, affects the individual behavior for adoption of cryptocurrency in Pakistan. This study analyzes the impact of performance expectancy, effort expectancy, facilitating condition, social influence, hedonic motivation and trust. The data collected from those people who were students of PIAIC, and from those individuals who have some knowledge about cryptocurrency and blockchain.

- The purpose of this study will also highlight the institute who start initiating to teach these technologies, which support digital currency such as Blockchain technology and Web 3.0, furthermore this study also discusses some literature review and implication of central bank digital currency, and last it helps to those researchers who want to do further research in this domain.

LITERATURE REVIEW

From last 2 decades, many researchers are working and exploring changes, uses and impact of digitalization and future of financial technologies and services in many domains. Fintech, Cryptocurrency, Blockchain, IOT and metaverse are few of them (Ahmed et al., 2024). Cryptocurrency introduced in the market by Satoshi Nakamoto in 2008. His White paper Popularity and solution to the conventional Payment system get more attention of people. Cryptocurrency is an electronic Payment System that allow peer-to-peer fund transfer between two participants without involving third trusted party (Nakamoto, 2008). As per (Statista, 2023) 8685, (Fig. 1) types of cryptocurrencies are in circulation worldwide. As cryptocurrency transactions are carried out through a peer-to-peer network that creates a blockchain incorporating all involved parties, it is thought that cryptocurrency has the potential to be a revolutionary force, comparable to the influence of the internet. By creating a new virtual domain, this breakthrough has the potential to influence how finance will develop in the future. The original reaction to the advent of the internet is remarkably similar to how blockchain and cryptocurrencies have been received (Joshi et al., 2018; Hussain et al, 2023).

Mostly Cryptocurrencies working on blockchain technology, Research by (Lee et al.,2019). blockchain may improve safe data transmission and make transactions between entities simpler and easier, both people and businesses may benefit from it, but some characteristic of cryptocurrency like anonymity and volatility bring many problems for individual (Schaupp et al., 2018). Many others benefit of this technology are study by different researchers. International trade is being improved by the use of blockchain technology, which is causing a shift towards the use of cryptocurrencies for financial transactions (Han et al., 2021).

According to Glaser et al. (2014), buying cryptocurrencies, especially Bitcoin, is primarily done for speculative investment. Exchange-traded notes (ETNs) and derivative products (CFDs), which brokers provide, allow investors to watch the swings in the price of Bitcoin. This increases the accessibility of speculative investment opportunities to a wider investor base. The increasing usage of cryptocurrencies in illegal activities, Houben et al. (2018) pointed out crimes such tax evasion, funding of terrorism, and money laundering as examples. They emphasized the significant market share of unregulated cryptocurrencies as well as the total market value of these virtual currencies worldwide. Regulators are currently carefully assessing whether and how to regulate cryptocurrencies. There is not, however, a widely shared agreement on how to approach this problem.

Prior Research on Behavior Intention of Adoption of Cryptocurrency

Cryptocurrency behavior adoption among individual and institution research is not new. Still many researchers of different countries are identifying opportunities and need of this digital payment and investment intention among their peoples (Ahmed et al., 2024). Miraz at el. (2022) said that cryptocurrency improves the current ecosystem of digital currencies. The use of cryptocurrencies promotes increased awareness, good will, trust, and acceptance. They could have a big impact on society and the economy, after all. Inci and Lagasse (2019), Cryptocurrencies are now being used by people as an

investment product and as a medium of exchange. It has been predicted that practically every investor's portfolio would include cryptocurrencies at some point in the future. Thus, the question of what is the intention or driving forces behind people's decision to invest in cryptocurrencies arises. Numerous studies have reached the conclusion that various elements serve as the primary driving forces for cryptocurrency adoption (Arias-Oliva et al., 2021). On the other side Perceived benefits, perceived risk, social effect and structural provision, supported by self-efficacy and innovations are also used to identify the behavior intention of adoption of Cryptocurrency (Hasan et al., 2022; Mubeen & Mohiuddin, 2022). Technology awareness and Government support also play a key role in identifying behavior (Sagheer et al., 2022). Furthermore, the Price, hedonic motivation and trust extension of UTAUT 2 model also using to check the intention of individual to adopt the latest technology (Venkatesh et al., 2012).

Each element has various results in different countries regarding adoption of cryptocurrency (Hussain et al, 2023). Walton and Johnston (2018) research on adoption of bitcoin where their findings indicate that the Bitcoin usage intentions of participants were directly influenced by perceived benefit, attitude toward bitcoin, subjective norm, and perceived behavioral control. It was discovered that perceived benefit, usefulness, ease of use, and risk associated to trust all indirectly influence one's propensity to adopt bitcoin. Additionally, it appears that the complexity of Bitcoin and its high level of volatility are the main obstacles to its acceptance in South Africa. Similar researches are done in Spain by using TAM model Arias-Oliva et al. (2021). According to their findings, performance expectancy and facilitating conditions have the highest capacity to predict a particular investor's intention to use cryptocurrency. Effort expectancy also had considerable explanatory power, but its influence effect was smaller. The other factors social influence, perceived risk, and financial literacy did not have a significant impact.

Mensah et al. (2022) have done similar research among Chinese citizen regarding intention to adopt Bitcoin using UTAUT model, their study demonstrated that the influence of both performance expectancy with proper Government support on people's willingness to accept bitcoin as payment is significantly moderated by government regulation. However, in contrast to predictions, government regulation had little effect on how much effort expectancy (EE) and security affected the acceptability of bitcoin payments. The same is true for blockchain-based cryptocurrencies; in order to remove the doubt around their adoption, official support is necessary (San Martn & Herrero, 2012).

Another study done by (Younus et al., 2022) in New Zealand where there result conclude that people are more likely to use and accept Bitcoin if they think others around them are doing so (social influence), if they think it is secure (cybersecurity), and if they are very motivated to use and willing to use it. (Gupta et al., 2020) their findings showed that Social Influence is the most important component, while Effort Expectancy is the factor that investors take into the least consideration. Cryptocurrency adoption among Saudi Arbian citizen work on the same pattern, their study revealed that attitudes, arbitrary standards, perceived benefits, and pleasure all have an impact on people's intentions to use cryptocurrencies. The characteristics of perceived risk, personal innovation, privacy, and financial risk were found to be unrelated to the intention to adopt cryptocurrencies among Saudi citizen (Alaklabi et al., 2021).

Waisman et al. (2019) investigates the UTAUT model's applicability in various situations by putting it to the test with samples from Portugal and Argentina also. According to their findings, the UTAUT model fits well for both the samples from Argentina and Portugal, explaining about 61 percent of the variation in intention to use cryptocurrencies for Argentina and 63% for Portugal. Performance expectancy had the highest predictive value for both samples. They conclude that adoption of

cryptocurrencies is significantly predicted by trust. Jonker et al. (2018) also looked into whether in Netherlands store-owners intended to accept bitcoin payments or not. They discovered that while adoption of bitcoin as a payment method was largely planned for the near future, there was still a relatively small amount of current use.

The acceptance of cryptocurrencies is essential in the context of digital business, according to a study done by Chen et al. in 2022. A number of factors that affect the adoption of cryptocurrencies were discovered in the study, which had a particular focus on Malaysia's digital economy. According to the study, acceptance of cryptocurrencies is significantly influenced by social influence, price value, traceability, and attitude. Customer happiness acts as a moderator for these parameters, suggesting that satisfied customers are more likely to accept cryptocurrencies in Malaysia's digital economy.

In Jordan, Dmaithan et al. (2021) carried out a study of a similar nature. They employed the enlarged Theory of Reasoned Action (TRA) model to research this phenomenon. The study's findings demonstrated that a variety of traits could positively affect a person's inclination to use cryptocurrency. The final results of the study show that subjective norm, perceived risk, perceived usefulness, perceived fun, perceived ease of use, and trust all significantly influence people's intents to adopt cryptocurrency. These factors combine to raise Favorable perceptions of cryptocurrencies, which in turn influence the desire to use cryptocurrencies.

A study conducted by Amsyar et al. (2020) claims that Bank Indonesia issued a warning to Bitcoin users in Indonesia, recommending them not to invest in the virtual currency. The potential concerns related to the volatility and circulation of Bitcoin exchange rates, which could endanger the country's monetary, payment, and financial stability, were the driving force behind this preventative move. Considering that other prominent nations like Korea and Japan have legalized cryptocurrency transactions, the report further emphasizes the enormous influence of cryptocurrencies on the Indonesian economy. Due to its reliance on cryptocurrencies, Indonesia's economy is vulnerable since any negative developments or crises experienced by these more developed nations may have repercussions for Indonesia as well.

According to Almarashedh et al. (2021), the impact of IT on people's lives is primarily discussed in relation to online payment methods and digital currency. In the context of users' future expectations and behavioral intentions to use bitcoins, they consider a variety of variables related performance expectancy, effort expectancy, trust, adoption risk, decentralization, and social impact interaction. Their research demonstrates that the factors that strongly influence behavioral intention to use bitcoins include social influence, adoption risk, and effort expectancy. Alyahya et al. (2023) said that the behavioral intention of people to invest in these digital currencies is positively influenced by cryptocurrency.

Supporting Theories

Unified Theory of Acceptance and Use of Technology

Venkatesh et al. (2003) developed the unified theory of acceptance and use of technology (UTAUT) to explain user acceptance and use of a technology. This model was developed through eight different combinations of user acceptance theories and model. The Theory of Reasoned Action (TRA), The Technology Acceptance Model (TAM), the Motivational Model, the Theory of Planned Behavior (TPB), the Model of Personal Computer Utilization Use, the Diffusion of Innovation Theory, and the Social Cognitive (Roos, 2015). The Core four Constructs of UTAUT are performance expectancy, effort expectancy, social influence and facilitating condition. A number of studies have shown the UTAUT model's predictive ability in a variety of technological and social contexts, including e-commerce

(Venkatesh et al., 2003), healthcare (Holden et al., 2011), internet banking service (Alalwan et al., 2018), Blockchain and cryptocurrency context.

Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2)

The UTAUT model revised in 2012. The UTAUT2 model is an improved version of the previous one. The UTAUT model comprise four concepts of UTAUT2, performance expectancy, effort expectancy, social influence, and Facilitating condition and the addition of three new concept in the UTAUT2 model, which are hedonic motivation, price value, and habit. These three new factors have significant impact on the behavior intention to use of technology (Venkatesh et al., 2012).

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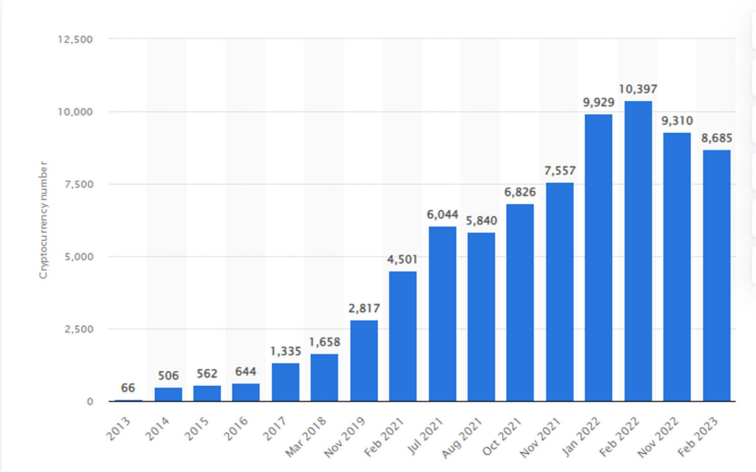

Figure 1 : Number of Cryptocurrencies worldwide from 2013 to February 2023

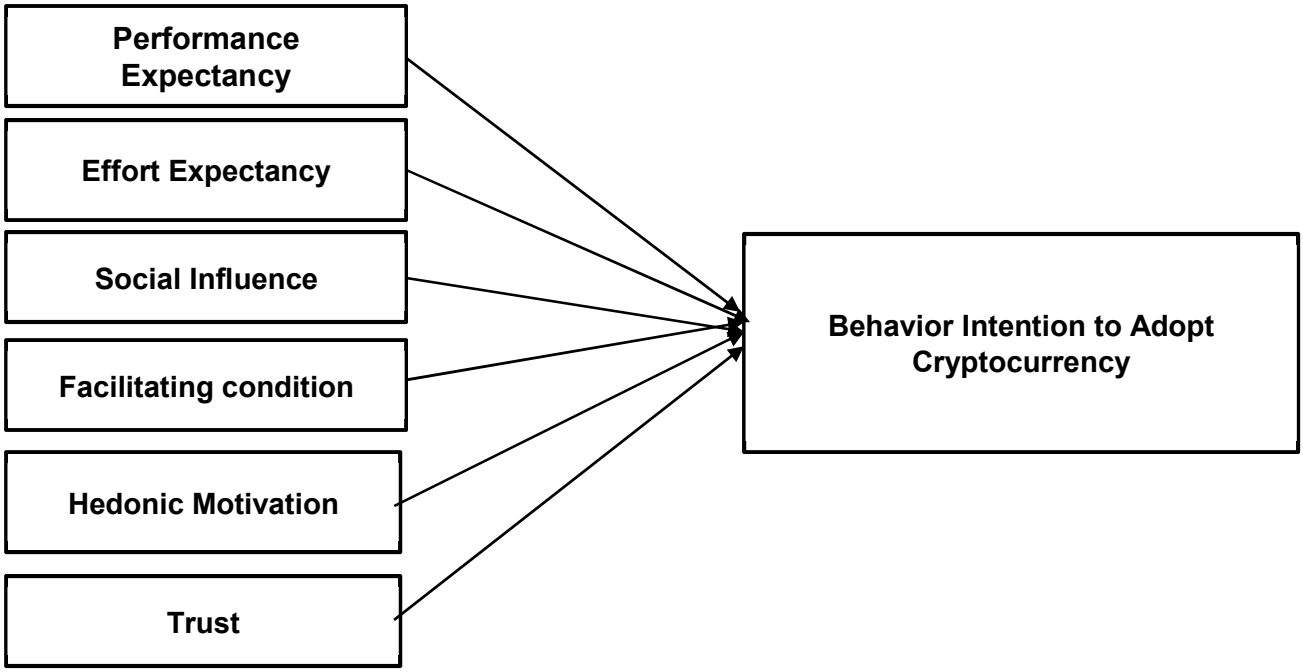

Figure 2: Conceptual Frame Work

RESEARCH METHODOLOGY

Research Philosophy

This is phenomenon of data acquisition that depends on the nature of research conducted by the researchers (Setzke, Bohm, & Kremar, 2019). It also evaluates the way the researcher predicts the data to drive the results, which are believed to be unbiased and reliable in nature. On which the research philosophy is based, the epistemology phenomenon revolves around when something is known to be true, reliable, and authentic, where on the other hand, the doxology is something believed to be authentic or reliable (Sekaran & Bougie, 2016).

Research Approach

There are two widely used research approaches, namely the inductive approach and the deductive approach. The nature of the research, whether quantitative or qualitative, determines which approach will be most appropriate for research. Research approach focuses on hypothesis formation at the end of the research when the researcher has accumulated the data from the respondents. A type of research in which a new phenomenon which has never been researched before, is identified and induces a hypothesis after the collection of data. On the other hand, the deductive approach in research derives hypotheses at the start of the research when the study area of research is deemed from past research and data is available and no new phenomenon is being researched. It identified the relationship between variables by using a deductive approach and co-variance among the variables. The deductive approach supports quantitative research where data consists of numeric form and uses that numeric data for hypothesis testing (Nasir & Sukmawati, 2023). This research is using the deductive approach to analyze the collected information from respondents in an appropriate manner. This approach has assisted the researcher to reach a reliable and meaningful conclusion, and it will help in making recommendations.

Research Design

This study uses quantitative research design to accomplish the objectives of this research. As per the notion of this research, it signifies the fact that numerical data which analysis is the factor for investing the factors affecting adoption of cryptocurrency. The information collected from respondents was coded as numeric data that was contain Likert Scale. The data collected from respondent has been based on their experience, observation, and behavioral intention and usage behavior towards cryptocurrency.

Sample Data collection Technique

A systematic online questionnaire was used to gather the main research data. A sample size is taken as 400 respondents from various organizations, PIAIC students who is currently learning blockchain technology, and universities had been reached for the achieving the target. Out of 400, total 250 responses gathered. The survey was circulated via online with the help of Google form as well as form circulates in many other social media networks, including Linked-In, WhatsApp, and others. It was based on a five-point Likert scale. From April 5 to May 25, 2023, the primary data was gathered. Information about the participants is provided in Table1.

RESULTS AND DISCUSSION

The objective of the research is to check the behavior intention of people regarding cryptocurrency in Pakistan, as there are multiple factors which affect the decision of adoption and non-adoption, but this study on focuses on Performance expectancy, effort expectancy, facilitating condition, social influence,

hedonic motivation and trust. All data collected through Google form. After the data was gathered, statistical analysis, including descriptive analysis, reliability statistics, correlation analysis, and regression analysis, was carried out with the use of SPSS software.

Table 1
Demographic Characteristics

Variables	Levels	Frequency (n)	Percentage (%)
Age	18-30	139	56
	31-40	76	30
	41-50	28	11
	51-60	4	2
	61 and above	3	1
Gender	Male	168	67
	Female	82	33
Education	Matric/O-level	0	0
	Intermediate/A-Level	13	5.2
	Bachelors	70	28
	Master	110	44
	MS/MPhil	48	19.2
	PhD	9	3.6
	Technical Education	0	0
Occupation	Employee	135	54
	Business Owner	74	30
	Unemployed	0	0
	Student	39	16
	Pensioner	2	1
	Other	0	0
Income	25,000 to 50,000	68	27
	50,001 to 75,000	72	29
	75,001 to 100,000	35	14
	100,001 to 125,000	13	5
	125,001 to 150,000	18	7
	150,001 and above	44	18
Experience of Using Fintech (example of Using mobile banking and bitcoin etc)	Less than 1 year	68	27
	1 to 3 years	89	36
	More than 3 years	61	24
	No Experience	32	13

Participants in this study were chosen based on a number of criteria, including age, gender, education, occupation, income, and prior use of fintech services like mobile banking and bitcoin. The bulk of participants (56% of the sample) were between the ages of 18 and 30. The age group between 31 and 40 constituted 30% of the participants. 33% of the population was female, while 67% of the population was male. In terms of educational background, master's degree holders made up the largest percentage of participants (44%), followed by those with bachelor's degrees (28%). The bulk of people were employed (54%), followed by company owners (30%) in terms of occupation. When considering income, the majority (29%) fell between Rs.50,000 to Rs75,000 in range. The highest percentage of users

had been using fintech services for 1 to 3 years (36%), according to experience with them. These results shed important light on the features and demographics of the people who were chosen for the study.

Table 2
Reliability (Cronbach's Alpha)

Variables	Reliability	Items
Performance Expectancy	0.897	3
Effort Expectancy	0.832	4
Social Influence	0.890	3
Facilitating Condition	0.767	4
Hedonic motivation	0.841	3
Trust	0.726	3

Table 2 shows the reliability of each variable. A high level of reliability was found in the results for each variable. Users' expectations were accurately measured by Performance Expectancy (0.897) and Effort Expectancy (0.832), respectively. While Facilitating Condition (0.767) evaluated the accessibility of resources, Social Influence (0.890) measured the influence of social variables. Trust (0.726) evaluated users' trust in cryptocurrencies, and Hedonic Motivation (0.841) accurately measured pleasure. These results support the validity of the variables and offer a strong framework for the thesis's data analysis and interpretation.

Table 3
Descriptive Statistics

	N	Mean	Std. Deviation	Skewness		Kurtosis	
Performance Expectancy	250	3.55	0.926	-0.624	0.154	0.293	0.307
Effort Expectancy	250	3.48	0.811	-0.906	0.154	1.263	0.307
Social Influence	250	3.48	0.904	-0.674	0.154	-0.091	0.307
Facilitating Condition	250	3.42	0.764	-0.218	0.154	0.019	0.307
Hedonic motivation	250	3.4	0.8	-0.511	0.154	0.401	0.307
Trust	250	3.27	0.858	-0.552	0.154	0.615	0.307
Valid N (List wise)	250						

The mean, standard deviation, skewness, and kurtosis for each variable are displayed in the descriptive findings. Positive expectations for the adoption of cryptocurrencies were indicated by a mean performance expectancy of 3.55 (SD = 0.926). A mean of 3.48 (SD = 0.811) for effort expectancy indicates perceived usability. Social Influence showed the influence of social variables with a mean of 3.48 (SD = 0.904). The Facilitating Condition showed perceived resource availability with a mean of 3.42 (SD = 0.764). Hedonic Motivation had a mean of 3.4 (SD = 0.8), indicating that cryptocurrency users enjoy utilizing it. A moderate level of trust was indicated by the mean of 3.27 (SD = 0.858) for trust. Participants overall expressed favorable impressions of their intention to use cryptocurrencies, including performance expectancy, effort expectancy, social impact, favorable conditions, hedonic motivation, and trust.

Table 4
Model Summary (Regression Analyses)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.832[a]	0.693	0.685	0.518

The statistical findings from the linear regression model provide important light on how the predictor variables and the outcome variable are related. A strong positive association between the predictors and the outcome is shown by the high correlation coefficient (R), which is 0.832. Additionally, the coefficient of determination (R Square) of 0.693 indicates that the predictors can account for roughly 69.3% of the variability in the outcome. Considering the quantity of predictors and the size of the sample, the adjusted R Square value of 0.685 show that the model fits the data well. The average difference between the values of the predicted and actual outcomes is shown by the standard error of the estimate (0.518). Overall, these findings show a well-fitting regression model and the significant influence of the predictors on the outcome variable

Table 5
Anova [a]

Model	Sum of Squares	Df	Mean Square	F	
1	Regression	147.327	6	24.555	<.001[b]
	Residual	65.265	243	0.269	
	Total	212.592	249	Total	

a. Dependent Variable BI
b. (Constant), Performance expectancy, effort expectancy, Facilitating condition, social influence, Hedonic motivation, and Trust.

The findings of the regression model's analysis of variance (ANOVA) provided essential data on the relationships between the predictors Performance expectancy, effort expectancy, Facilitating condition, social influence, Hedonic motivation, and Trust and the dependent variable behavior Intention. The significant regression sum of squares (SS) of 147.327 indicates that the regression model explained a significant portion of the variability in the dependent variable. The remaining unexplained variability was indicated by the residual SS value of 65.265. The strong and substantial correlation between the predictors and the result was shown by the F-statistic of 91.423 with a significance level of.001. These results demonstrate how well the regression model explains the variation in the dependent variable and support the significance of the predictors in BI.

Table 6
Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	.	
		B	**Std. Error**	**Beta**	**t**	**Sig**
1	(Constant)	-0.005	0.177		-0.03	0.976
	Performance Expectancy	0.179	0.059	0.18	3.059	0.002
	Effort Expectancy	-0.064	0.059	-0.056	-1.082	0.28
	Social Influence	0.111	0.049	0.109	2.286	0.023
	Facilitating Condition	0.13	0.064	0.108	2.042	0.042
	Hedonic Motivation	0.279	0.058	0.242	4.774	0
	Trust	0.433	0.057	0.402	7.618	0

The findings of the regression analysis are shown in the coefficient table. Performance Expectancy, Social Influence, Facilitating Condition, Hedonic Motivation, and Trust all show positive and statistically significant coefficients, indicating a meaningful effect on the dependent variable. Trust has the highest standardized coefficient of any of them, indicating that it is the most significant predictor. On the other hand, effort expectancy has less of an effect. These results suggest that the dependent variable is significantly influenced by user expectations, social influence, resource availability, hedonic incentive, and trust. This data offers important insights into the variables that affect how well the dependent variable in the model is predicted.

Table 7
Correlations

Variables	Performance Expectancy	Effort Expectancy	Social Influence	Facilitating Condition	Hedonic Motivation	Trust	Behavior Intention
Performance Expectancy	1	.635**	.594**	.626**	.616**	.667**	.693**
Effort Expectancy	.635**	1	.472**	.644**	.555**	.465**	.500**
Social Influence	.594**	.472**	1	.388**	.499**	.580**	.585**
Facilitating Condition	.626**	.644**	.388**	1	.592**	.544**	.588**
Hedonic Motivation	.616**	.555**	.499**	.592**	1	.592**	.677**
Trust	.667**	.465**	.580**	.544**	.592**	1	.761**
Behavior Intention	.693**	.500**	.585**	.588**	.677**	.761**	1

**. Correlation is significant at the 0.01 level (2-tailed).

The Correlation matrix shows significant relationships among the variables examined in the study. All variables performance expectancy, effort expectancy, social influence, facilitating condition, hedonic motivation, trust with behavior intention show a significant relationship with each other. The low P- value (0.01) indicates that the relationships observed in the study are unlikely to occur by chance and provide robust evidence for the significant association between the variables.

CONCLUSION

The UTAUT2 model was implemented in the study to explore Pakistan's cryptocurrency adoption drivers. The findings indicated that behavioural intentions toward the adoption of cryptocurrencies were highly influenced by Performance Expectancy, Hedonic Motivation, Social Influence, and Trust. Notably, Effort Expectancy had a lesser effect than Performance Expectancy, which highlighted the advantages of using cryptocurrencies. The results highlight how crucial it is to promote adoption by expressing advantages, creating joyful recollections, utilizing social networks, and developing trust. To remove obstacles and encourage adoption, recommendations include strengthening security measures, launching educational initiatives, and enacting regulations. Comprehending these factors can help policymakers, companies, and other relevant parties devise focused approaches to enable the assimilation of cryptocurrencies into Pakistani daily life.

Recommendations and Implications

Despite obstacles brought on by its ban on cryptocurrencies, Pakistan can quicken the adoption of cryptocurrencies by establishing a clear legal framework, dealing with concerns like consumer protection and money laundering, and investigating the creation of a digital currency backed by the central bank of the government. In addition to the Launching public awareness campaigns to inform the public about the advantages and dangers of cryptocurrencies while improving digital literacy with more funding and educational initiatives. Furthermore, leveraging blockchain technology is to promote partnerships between traditional banks and cryptocurrency platforms in order to improve financial inclusion, especially in places where access to traditional banking services is restricted. Policymakers, regulators, and businesses can get useful insights by conducting research studies and pilot programs to evaluate the potential impact of digital currency on various sectors, such as international trade and remittances.

Limitations and Future Research

Due to time constraints, the study's sample size was limited, and it adopted a cross-sectional methodology to evaluate Pakistan's adoption of cryptocurrencies. Adoption trends over time could be better understood with longitudinal data. Furthermore, the study's primary target audience is anyone with an understanding of cryptocurrencies and blockchain, especially those who has already employed or in business. Subsequent investigations may delve into adoption patterns unique to particular industries, like banking, telecommunications, supply chain management, and healthcare. Moreover, adding factors like price value and habit—as suggested by the UTAUT 2 model—may offer more profound understanding of the dynamics of adoption after trading limitations are remove and regulatory support is established.

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Appendix

Section I (Demographic)

1) Age

18-30 years old
31-40 years old
41-50 years old
51-60 years old
61 and above years old

2) Gender

Male
Female

3) Education

Matric / O-level
Intermediate/ A- Level
Bachelors
Master
MS/ MPhil
PhD
Technical Education

4) Occupation.

Employee
Business Owner
Unemployed
Student
Pensioner/ Retired

5) Income

25,000 to 50,000
50,001 to 75,000
75,001 to 100,000
100,001 to 125,000
125,001 to 150,000
150,001 and above

6) Experience of Using Fintech (example mobile banking, bitcoin etc)

Less than 1 year
1 to 3 years
More than 3 years
No Experience

Table 8
Constructs

Performance Expectancy	
PE1	I will find cryptocurrencies useful in my work.
PE2	Using cryptocurrency and related services (E-wallet, exchanges) will increase my work productivity.

PE3	Using Cryptocurrency will help me to pay more quickly and easily.
Effort Expectancy	
EE1	Learning how to use cryptocurrency will easy for me.
EE2	I believe that not too much mental effort will be required to interact with cryptocurrency.
EE3	I find Cryptocurrencies and related services easy to use.
EE4	It would be easy for me to become skillful at paying with Cryptocurrency.
Social Influence	
SI1	I will Use cryptocurrency if other people to whom I deal with will use this service.
SI2	Suggestions from people who influence my behavior would encourage me to use cryptocurrency.
SI3	I will use cryptocurrency service if my family/friends will use and accept paying with cryptocurrency.
Facilitating Condition	
FC1	The necessary resources which is required for cryptocurrency is available.
FC2	I have full knowledge necessary to use cryptocurrency services.
FC3	Cryptocurrency is almost similar as other high-tech technologies I use.
FC4	If I face any issues using cryptocurrency, I can get help.
Hedonic Motivation	
HM1	I believe that the pleasure while transacting in cryptocurrency would be great.
HM2	I think using cryptocurrency will be enjoyable.
HM3	Using cryptocurrency services will provide me with a lot of entertainment.
Trust	
TR1	I have trust in the security and reliability of cryptocurrency.
TR2	I believe that invest in cryptocurrency will provide benefit.
TR3	I believe that investment in cryptocurrency can generate profits even without constant monitoring.
Behavior Intention	
BI1	I predict that I will use Cryptocurrencies.
BI2	I Plan to use cryptocurrency for payment.
BI3	I use cryptocurrency because it will benefit the organization where I work.
BI4	I plan to suggest the use of cryptocurrency to my colleagues, friends, and family.