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Empirical Research on Intention to Rebuy Cryptocurrencies Such as Bitcoin

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Cryptocurrencies, such as Bitcoin, allow creative and quick transactions without tangible assets and online payments and, thus, they can be used in potential economic system revolutions. In Pakistan, a lesser number of people are using Bitcoin. It will be crucial to look at the Pakistani people's intentions to rebuy Bitcoin. Smart PLS 3 was used to evaluate the empirical data. It is found that expectations positively affect perceived enjoyment and ease of use, and there is a relationship between perceived enjoyment and perceived ease of use, whereas perceived enjoyment, expectations, and perceived ease of use influence satisfaction. Furthermore, satisfaction, perceived ease of use, perceived enjoyment, and trust substantially impact Bitcoin rebuy intentions. Social influence and experience are found to have an impact on trust. This is the first project to look at factors affecting intentions toward the rebuy of Bitcoin in Pakistan; thus, we proposed a unique model.

Keywords: *Cryptocurrencies; Bitcoin; Perceived Enjoyment; Satisfaction; Intention to Rebuy; ECT).*

Introduction

Lower prices, greater confidentiality, improved safety, enhanced performance, and high-speed transfers are the advantages of blockchain technology. By incorporating blockchain technology into their respective corporate practices, government authorities, companies, and banks explore the broader ramifications of blockchain technologies (Kietzmann & Archer-Brown, 2019). Blockchain systems have an enormous ability to disrupt current corporate practices and accelerate enterprise operations (Pazaitis *et al.,* 2017). For example, Hughes, Park, Kietzmann, and Archer-Brown (2019) emphasized blockchain technology in various fields and realms, including entrepreneurship, regulation, intellectual property, administration, operational management, healthcare, and energy.

Blockchain is also mostly regarded as the new technology that allows cryptocurrencies to exist (Beck, Avital, Rossi, & Thatcher, 2017). The exponential development of the cryptocurrency industry and its abrupt price swings have attracted a lot of publicity worldwide, making it an exciting area of research (Dyhrberg, Foley & Svec, 2018; Qarni *et al.,* 2019). Blockchain and crypto-currency have P2P transfers without using a middle man/third party, with benefits such as increased protection, confidentiality, low transaction costs, and cross-border use. Ripple, Ethereum, Litecoin, and Bitcoin are four of the most well-known cryptocurrencies today.

Due to its rapid market swings, high-profit prospects, and many other potential benefits, such as quick transfers, low transaction costs, increased protection, encryption, and safety, Bitcoin has become a topic of high priority for scholars, government authorities, and media (Dastgir *et at.,* 2019). The cost of Bitcoin is independent of the actions of traditional financial assets such as commodities, shares, and stocks, providing meaningful diversification opportunities. According to researchers, Bitcoin's future in the existing financial environment is uncertain due to regularisation and acceptance problems (Shahzad, Xiu, Wang & Shahbaz, 2018). Even after concerns about Bitcoin's consistency and legitimacy, numerous surveys have shown that people choose to buy it, and it can be seen as a safe investment way (Baur *et al.,* 2018; Bouri *et al.,* 2017; Dyhrberg, 2016; Ji, Bouri *et al.,* 2018; Shahzad *et al.,* 2018).

Over the last few years, there have been a lot of scientific and theoretical studies on Bitcoin. Human-centered methods, however, are minimal, and strong journal articles are required. Just a few pieces of research have focused on

human-centered Bitcoin approaches (Abramova & Böhme, 2016). These studies looked into the factors that influence Bitcoin acceptance and stability. After a thorough analysis of the literature, no consumer viewpoint on Bitcoin's rebuy purpose has been established. The current study's contribution varies from previous work on the human-centered method in that it addresses Bitcoin rebuy purpose, which is yet to be investigated in the Bitcoin literature. This analysis aimed to create a questionnaire to gather feedback from Bitcoin users in Pakistan to determine their intentions to rebuy Bitcoin.

This research has made a unique contribution in this area of cryptocurrency. In particular, many prospective investors and people are still confused about blockchain technology and cryptocurrencies, particularly Bitcoin, and their functions, which may have hampered the widespread use and financing or buying of blockchain-based cryptocurrencies in different settings. The unique suggested model may be considered a new addition to the prior studies, as it brings a fresh viewpoint to predicting consumer behavior of those who are already using this technology and assisting future technological adoption. First, this article reflects on the crucial considerations that every cryptocurrency must recognize to compete in the volatile cryptocurrency sector. It analyzes the impact of Expectation (Expt), Perceived ease of use (PEoU), Perceived enjoyment (PE), Trust (T), Social Influence (SI), Experience (E), and Satisfaction (S), intents, directly and indirectly, to utilize and to rebuy of the cryptocurrency, using technology acceptance models and expectation confirmation theory (ECT). In this research, we have also examined the effect of (E) and (SI) on (T), where (T) not only affects (IR) but also (PEoU). The survey-based research was executed in Pakistan with a group of university educated young people who had a fundamental understanding of the internet and experience in dealing with cryptocurrency. Second, the study could provide professionals with a better knowledge of consumers' perception of cryptocurrency concerning the rebuy of Bitcoin, which could then be utilized to develop risk-reduction methods and trust-building processes to improve and promote users' online trade adoption, particularly in the growing field of cryptocurrency. Third, regulating the associated factors broadens the study area of economic repercussions based on crypto use. In short, a study from this viewpoint may help us to better grasp the critical effect of relevant variables on the intention to rebuy cryptocurrency by Pakistan's whole public.

The following are the objectives of this research:

To analyse whether associated elements (mentioned above) affect consumers' intentions to rebuy cryptocurrency.

To determine which elements have the most impact on the intention to rebuy cryptocurrency.

The remainder of the paper is organized as follows: Section 2 covers related research and presents the hypothesis; Section 3 explains methodology and results; Section 4 contains the discussion of the results; Section 5 contains conclusion, limitations, and future studies.

Literature Review

Bhattacherjee (2001) developed an expectation confirmation model focused on the expectation confirmation theory (ECT). Many scholars have used this model of expectation confirmation broadly to study the intention to purchase (Wen, Prybutok & Xu, 2011) and the behavior of the users who use mobile internet or use social media related applications (Hsiao, Chang, Tang & Informatics, 2016), users of eCommerce and electronic services (Hsu, Chang & Chuang, 2015), and users of mobile messaging (Joo, Park & Shin, 2017; Oghuma Libaque-Saenz, Wong, Chang & Informatics, 2016). According to Oliver (1980), a user's buying experience significantly affects essential variables such as expectation, attitude, disconfirmation, satisfaction, and the intent to continue using or buying back. The expectation confirmation concept has often been used in the marketing arena to investigate consumers' expectancy, post-purchase, buying back, and satisfaction behavior (Dabholkar, Shepherd & Thorpe, 2000). Customers will feel more satisfied, and their likelihood of rebuy plans will increase if their expectations are met by perceived expectations of products or services (Bhattacherjee, 2001). It is fair to use the expectation validation model in the current study to investigate the relationship between anticipation, fulfilment, and goal of Bitcoin rebuy. This study suggests, based on the level of expectation confirmation model, that consumer satisfaction leads to buy-back intent of Bitcoin if Bitcoin returns exceed expectations.

The technology acceptance model introduced by Davis (1989) was also used in addition to the expectation confirmation model. The TAM, which is based on the "Theory of Reasoned Action" (Azjen, 1980) and explains variations in behavior following the adoption of new technologies, is one of the most widely used theories in the information networking system for interpreting the process of new-tech adoption. Many studies have shown that technological acceptance model indicators are effective predictors of adopting emerging innovations such as mobile shopping applications, e-government, internet shopping, and healthcare record systems (Palos-Sanchez, Martin-Velicia, & Saura, 2018). The perceived enjoyment and perceived ease of use constructs are regarded in this analysis on the presumption that pleasure will be given to Bitcoin users and that high perceived enjoyment and perceived ease of use will lead to rebuy the intent of Bitcoin.

Hypothesis Development

Expectations (Expt) and Perceived Enjoyment (PE)

The expectation is described as how users' expectations are met and based on their prior encounter with a particular technology (Bhattacherjee, 2001). The expectation is an indicator of perceived enjoyment (Kim, 2010). When users' initial experience meets their needs, they are most inclined to continue using the programs to preserve their cognitive equilibrium (Bhattacherjee, 2001). Expectation and perceived pleasure found a relationship in studies by Joo et al. (2017). Similarly, new research has shown that anticipation positively impacts perceived enjoyment in a digital world (Moghavvemi *et al,* 2017; Oghuma *et al.,* 2016). According to the references' literature, Bitcoin consumers are more inclined to appreciate the buying of Bitcoin if their hopes match their initial impressions, and it is fair to make a hypothesis that:

H1: Expectation is positively connected with perceived enjoyment

Expectations (Expt) and Perceived Ease of Use (PEOU)

According to researchers, perceived ease of use is a critical component of the TAM and ongoing behavior, according to researchers(Davis, 1989). Previous studies of TAM have relied heavily on PEOU to justify behavioral usage and adoption of digital technology. If somehow the means of contact (websites or apps) is challenging to utilize or complicated, it is more likely to affect consumers negatively. According to Davis (1989), PEOU is a core consumer intellectual conviction and impression determining the mindset and the user's usage behavior to implement information-related technology. Several exchange firms are reportedly working on making Bitcoin simple to use, with animations, guides, outreach efforts, and skills training-related programs assisting in this aspect (Baur, Buhler, Bick & Bonorden, 2015).

According to Hong, Thong, and Tam (2006) report, expectation can favorably affect PEOU. The evidence presented in the preceding paragraph supports the hypothesis given below:

H2: Expectations are related to expected ease of use in a positive way.

Expectations (Expt) and Satisfaction (S)

As a central element in satisfaction, expectation suggests how to achieve satisfaction (Boulding, Kalra, Staelin, & Zeithaml, 1993). According to Hsieh, Yuan, and Kuo (2011), it is crucial to balance expectations to achieve a higher degree of satisfaction. Hsu et al. (2015) and Joo et al. (2017) found a positive association between Expectation and satisfaction in their research. Based on the cited literature, it's fair to conclude that a maximum degree of satisfaction is given when a person's Bitcoin expectations are exceeded. As a result, it is possible to propose a hypothesis that:

H3. Expectation is positively connected with satisfaction.

Perceived Ease of Use (PEOU) and Perceived Enjoyment (PE)

Usability considerations must be considered when designing new services or systems to ensure customers perceive enjoyment. It is thought that if a device is simple to use, people will find it more enjoyable. Researchers often refer to perceived enjoyment as an inherent incentive (Davis, Bagozzi & Warshaw, 1992). The association between PEOU and PE has been investigated in various study settings (Rodrigues, Oliveira, & Costa, 2016). Igbaria, Iivari, Maragahh, and management (1995) discovered that PEOU affects PE directly. Davis et al. (1992) and Teo, Lim, and Lai (1999) also identified a linkage between PEOU and PE in their studies. Abramova and Böhme (2016) indicated that the PEoU of Bitcoin affects its perceived values and benefits positively.

As a result, it is hypothesized that when individuals have interactions with the bitcoin method that is simple to use, their levels of subjective delight, or presumed happiness, will increase, and the following theory is given below:

H4. PEoU has a positive relationship with PE.

Perceived Enjoyment (PE) and Satisfaction (S)

According to Arnold and Reynolds (2003), PE is described as a delight, excitement, and enjoyable experience, each of these can be measured throughout the purchasing phase. Rodrigues et al. (2016) consider enjoyment a significant antecedent of behavioral intention and a critical hedonistic element. Previous work looked at the association between PE and S (Hong *et al.,* 2006). Hsiao et al. (2016) looked into cell phone-related social apps, Joo et al. (2017) looked into student usage of ebooks, (Oghuma *et al.,* 2016) looked into cell phone device communication, and Lin, Wu, Tsai, and management (2005) looked into web page consumers. According to each of these studies, there is a connection between satisfaction and perceived pleasure. Meanwhile, it has been confirmed that buying Bitcoin is enjoyable, which may increase satisfaction. As a result, it is proposed that:

H5. Perceived enjoyment is linked positively to satisfaction.

Perceived Ease of Use (PEOU) and Satisfaction (S)

Perceived ease of use refers to how customers feel that using such technologies would not take a lot of time and effort (Davis, 1989). There are mixed results in the existing literature regarding the connection between PEOU and satisfaction. According to D. Kim and Chang (2007), there is no connection between PEOU and satisfaction. On the other hand, Hong et al. (2006) found a strong link between these two factors. Bitcoin-related programs that are easy to use will open doors for people to build accounts without exerting extra effort, potentially increasing satisfaction. As a result, the sixth theory is advanced:

H6. PEOU is positively associated with satisfaction.

Satisfaction (Customer Satisfaction) and Intention to Rebuy (IR)

Customer satisfaction is a critical factor in increasing rebuy intent and leading to long-term relationships between consumers and businesses, especially online (Wen *et al.,* 2011). A strong connection between satisfaction and intentions to rebuy has been established in the literature, particularly for technical disciplines. In this system, the most accurate indicator of an individual's attitude regarding purchasing (e.g., intent to buy, brand/class preference, rebuy intent) is the satisfaction which shows a critical position (Hsiao et al., 2016). The current research suggests that when customers are content with their Bitcoin purchase, they would be more likely to rebuy it, and therefore proposes the following hypothesis:

H7. Satisfaction is linked to a higher possibility of repurchasing Bitcoin positively.

Perceived Enjoyment (PE) and Intention to Rebuy (IR)

According to academics, PE is described as a delight, exciting, and enjoyable experience, each of these can be measured throughout the purchasing phase (Arnold & Reynolds, 2003). As a credible indicator of human conduct by Childers, Carr, Peck, and Carson (2001), PE has a favorable impact on intention to rebuy, attitude to purchase, or both (Koufaris, Kambil & LaBarbera, 2001). Studies have been made to continue to use mobile social media apps, mobile messages, and blogging (Shiau, Luo & Technology, 2013). This research, which focuses on Bitcoin dealings and transactions, hypothesizes that PE can affect intentions to rebuy Bitocin, leading to the resulting the given hypothesis:

H8. Perceived enjoyment is positively related to Bitcoin rebuy intention.

Perceived Ease of Use (PEOU) and Intention to Rebuy (IR)

As per recent studies, the user's intention to rebuy is impacted by PEOU directly and indirectly (a dual) ways. PEOU, for example, has a strong and positive association with the intent to use mobile internet and smartphone apps in the future (Hong *et al.,* 2006). As per Wen et al. (2011), PEOU (utilitarian factor) and social and psychological elements (i.e., trust and satisfaction) affect the buyers' intention to buy again, either explicitly or indirectly. This study suggests that as Bitcoin consumers deem the Bitcoin structure/system to be simple to utilize, their ability to use and rebuy Bitcoin will increase, and therefore has the following hypothesis:

H9. Perceived ease of use is favorably correlated with the rebuy intention of Bitcoin.

Trust, Perceived Ease of Use (PEOU), and Intention to Rebuy (IR)

Trust represents the degree of convenience and security customers have in using technology (Jarvenpaa, Tractinsky, Vitale, & management, 2000). Confidence, protection, and privacy are considerations that implicitly or explicitly motivate individuals to utilize technology. In e-commerce, trust is essential. Building a solid confidence bridge allows customers to overcome their fears of risk and insecurity and encourages them to be confident while engaging with a sometimes unfamiliar, socially remote service or product provider through a new platform (McKnight, Choudhury, & Kacmar, 2002). People with a good attitude towards a specific technology may be more optimistic and confident than people with a pessimistic view. This indicates strong proportional associations between risk and acceptance when trust is taken into account (Eiser, Miles & Frewer, 2002).

McCloskey and Weaver find that trust substantially and positively impacts PEOU. If the consumer is confident in offering personal and sensitive financial details, he believes that online buying is simple to use (McCloskey & Computing, 2006). When customers' trust decreases, they are progressively immune to risk, and their defenses against disloyalty increase.

Individuals still assume that blockchain is a complex system that is difficult to operate and monitor. If confidence is derived from a blockchain-based unanimity mechanism such as a Stake Proof (PoS), it could facilitate the trust chain. IBM Hyperledger network for blockchain apps and a collaborative management framework ensure data safety and trust among utilizers (Demirkan, Demirkan & McKee, 2020).

H10: Trust has a constructive and vital effect on intentions towards cryptocurrency transactions facilitated by blockchain technologies.

H11: Trust has a significant and positive effect on the PEOU for crypto-monetary activities facilitated by blockchain technology.

Experience (E) and Trust (T)

Experience represents consumers' degree of expert knowledge and experience that encourages emerging technologies (Hackbarth, Grover, Mun, & management, 2003). This is a factor that has a considerable effect and may enhance or reduce according to the degree of experience of the individual (Chaouali, Yahia, Souiden & Services, 2016; Oláh, Bai, Karmazin, Balogh, & Popp, 2017).

The degree of technological expertise has a firm control and influence on the emotions of emerging technology (Oláh, Hidayat, Gavurova, Khan, & Popp, 2021). Any creative application-based technology framework sensitive to user experience, information, and behavior will form their trust, conviction, and acceptance of the new system (Jarvenpaa *et al.,* 2000; Olah, Hidayat, Dacko-Pikiewicz, Hasan & Popp, 2021). The consequences are that prior experiences with an IT service are essential factors in the growth, testing, or application of new technology implementation and usage models. One option is that perception influence behavior directly. In an article, Venkatesh said, "With more direct experience of the target structure, people change their system-specific PEOU to represent their contact with the system" (Venkatesh, 2000).

Experience with Blockchain technologies is an essential element in consumer trust. According to all these findings, this paper indicates that the relationship between (E) and (T) is direct. This will influence the model proposed; thus, the hypothesis is:

H12: Experience positively affects trust in crypto-monetary transactions facilitated by blockchain technologies.

Social Influence (SI) and Trust (T)

Social influence refers to the norms, responsibilities, memberships, and values of an individual, which influence the interpretation of what to do by the individual. Furthermore, social power is a one-of-a-kind construct in that it represents the level of trust in technologies and has a real impact on them (Chaouali *et al.,* 2016; Olah, Hidayat, Gavurova *et al.,* 2021).

These encounters and interpersonal environments allowed the user to investigate, assess the risk level, and have faith in the service before determining whether to use it or not (Chaouali *et al.,* 2016). Estimating the impact of social effects on blockchain technologies can help researchers better consider consumer attitudes about the emerging technology and the expected benefits of its usage.

In emerging technologies, social factors have a significant impact on consumer behavior. Multiple studies and methods suggest that social control is essential in describing consumer behavioral purpose. The degree of confidence arises from families or associates who support new goods or services, boosting trust and usage (Chaouali *et al.,* 2016). Social influence has an impact on blockchain technology customers and its applications. Thus, it is proposed that:

H13: Social influence positively impacts trust in biotin transactions supported by blockchain technology.

Research Methodology

Sample and Data Collection

Data Collection

A survey was performed to gather information from responders, Pakistani citizens residing in various cities around the country. The questionnaire was created to be simple to read and comprehend for the responders. The questionnaire was completed and double-checked with the help of two management science experts.

We sampled adults over the age of 20 in Pakistan who had better internet knowledge and experience with bitcoin transactions using a structured and self-administered online survey. Due to the survey's online nature, the sample is restricted to persons who have at least the basics of the internet, expertise, and experience with Bitcoins.

Before data collection, the respondents were issued a lengthy explanation message stating the study's goal. After determining the respondents' knowledge and experience with Bitcoin, the responders were given more information regarding Bitcoin and the research objective. They were then asked to complete the survey questionnaire. Previous research has highlighted the challenges and problems faced during gathering primary data (Brouthers & Xu, 2002; Peng & Luo, 2000). Not unexpectedly, researching in Pakistan was a challenging endeavor. All writers attempted to reach the target respondents via their acquaintances to introduce the survey goals. According to experts, acquiring Chinese confidence via Chinese is a possible strategy (Brouthers & Xu, 2002). We used the same technique in Pakistan. As a result, we gathered replies from the targeted population with intimate Pakistani friends and family support. The respondents revealed their readiness to fill out the surveys after being assured of their confidentiality. The chosen responders were asked to enlist the help of their Pakistani relatives and friends who are involved in Bitcoin transactions in the inquiry.

Measurement Items Development

PEoU, perceived enjoyment (PE), expectation (Expt), satisfaction (S), trust (T), social influence (SI), experience (E), and intention to rebuy (IR) are the eight variables considered in this study. The PEoU scale assesses how simple the Bitcoin structure is to operate. The responders were questioned about how user-friendly/efficiently managed the Bitcoin framework is for buying Bitcoin. "It is easy to remember the functions of Bitcoin." is an example object. The perceived enjoyment scale assesses the aspects of Bitcoin that make it enjoyable; for example, “Using or purchasing Bitcoin gives enjoyment to me for my task." Moon, Kim, and management (2001)’s research was used to develop the measuring components for perceived ease of use (2 items) and perceived enjoyment (2 items). An expectation scale is a tool for calculating the expectation rate for Bitcoin rebuys. For example, “My Bitcoin buying experience exceeded my expectations." The rebuy intention scale determines whether or not an individual intends to rebuy Bitcoin. “Instead of stopping my Bitcoin purchases, I intend to continue them." is an example thing. The scales of customer Expectation (3 items) and intention to rebuy (3 items) were taken from Bhattacherjee (2001).

The scale of trust containing three items was taken from McCloskey and Computing (2006). One sample item is "I trust the benefits of investing in Bitcoin" The scale of social influence (2 items) is taken from Chaouali et al. (2016). One sample item is “I will keep buying cryptocurrencies if people in my community widely use the service." The scale of experience (3 three items) was taken from Hackbarth et al. (2003). One sample item is “I have sufficient experience and understanding of how to execute transactions using the blockchain/cryptocurrency system (Application)."

The scale of satisfaction, including three items, was taken from M.-J. Kim, Chung, and Lee (2011). Responders were asked a series of questions about their satisfaction with Bitcoin purchases. Age, gender, education level, and income are used as control variables in this analysis. Figure 1 depicts the research model that has been proposed. Table 1 explains the constructs’ dimensions.

Table 1

Constructs' Dimensions

Construct	Description	Source
Perceived Ease of Use	Perceived ease of use refers to the measure to which customers feel that using such technologies would not take a lot of time and effort.	Moon et al. (2001)
Perceived Enjoyment	According to academics, PE is described as a delight, exciting, and enjoyable experience, each of these can be measured throughout the purchasing phase.	Moon et al. (2001)
Perceived Expectation	The expectation is described as how users' expectations are met and based on their prior encounter with a particular technology.	Bhattacherjee (2001)
Experience	Experience represents consumers' degree of expert knowledge and experience that encourages their emerging technologies.	Hackbarth et al. (2003)
Social Influence	Social influence tends to refer to the norms, responsibilities, memberships, and values of an individual, which influence the interpretation of what to do by the individual	Chaouali et al. (2016)

Construct	Description	Source
Trust	Trust represents the degree of convenience and security customers have in using technology.	McCloskey and Computing (2006)
Satisfaction	Customer satisfaction is critical in increasing rebuy (buy again) intent and leading to long-term relationships between consumers and businesses, especially online.	M.-J. Kim et al. (2011)
Intention to Rebuy	Intention to rebuy represents when a customer is satisfied and has intentions to reuse or rebuy (buy again) the product or services.	Bhattacherjee (2001)

Descriptive Statistic

The sample answers were gathered from 220 persons out of 450 from various backgrounds over 3 months, from 1st May 2021 to 30th July 2021, using an online survey (Annex: A). A questionnaire was sent to 450 people personally; only 220 were usable. The demographic details for the respondents are shown in (Table 2). The suggested hypotheses were tested using all of the replies. According to the findings, men made up 209 (95 %) of the data gathered, while females made up 11 (5 %). The bulk of responders was aged 20 to 30 (68 %). Others 70 (32 %) were between the ages of 31 and 40, whereas people aged 41 to 50 or more than 50 years old were not found. In addition to the profession, 18 (8 %) of respondents had a graduate degree, headed by 77 (35 %) with a master's degree and 125 (57 %) with a PhD; nevertheless, "other" accounted for just 0 % of respondents. Furthermore, the most prevalent vocations among respondents were 67 % students, 10 % working, and 14 % self-employed. The following is a breakdown of the sample's net monthly family income: 27 % less than 350$; 11 % between 351$ and 450$; 11 % between 451$ and 650$; and 51 % greater than 650$ citizens. Salary levels were relatively high, which is unsurprising given that the survey included adults with a college degree who are more likely to earn greater salaries. 88 % have less than one year of experience, 6% have more than one year but less than three years of experience and 6 % have more than three years of experience in Bitcoin transactions.

Table 2

Responders' Demographic Profile

Variable	Descriptions	Frequency	Percentage
Gender	Male	209	95 %
	Female	11	5 %
Age	20-30 years old	150	68.00 %
	31-40 years old	70	32.00 %
	41-50 years old	0	0.00 %
	More than 50 years old	0	0.00 %
Education	Bachelor	18	8.00 %
	Master	77	35.00 %
	Doctoral degree	125	57.00 %
	Others	0	0.00 %
Occupation	Working	42	19.00 %
	Self-Employed	31	14.00 %
	Unemployed	0	0.00 %
	Housewife	0	0.00 %
	Pensioner/Retired	0	0.00 %
	Student	147	67.00 %
Income Level	Less than 350$	60	27.00 %
	351-450	24	11.00 %
	451-650	24	11.00 %
	More than 650$	112	51.00 %
Experience in purchasing Bitcoin	Less than 1 year	194	88.00 %
	1-3 years	13	6.00 %
	More than 3 years	13	6.00 %

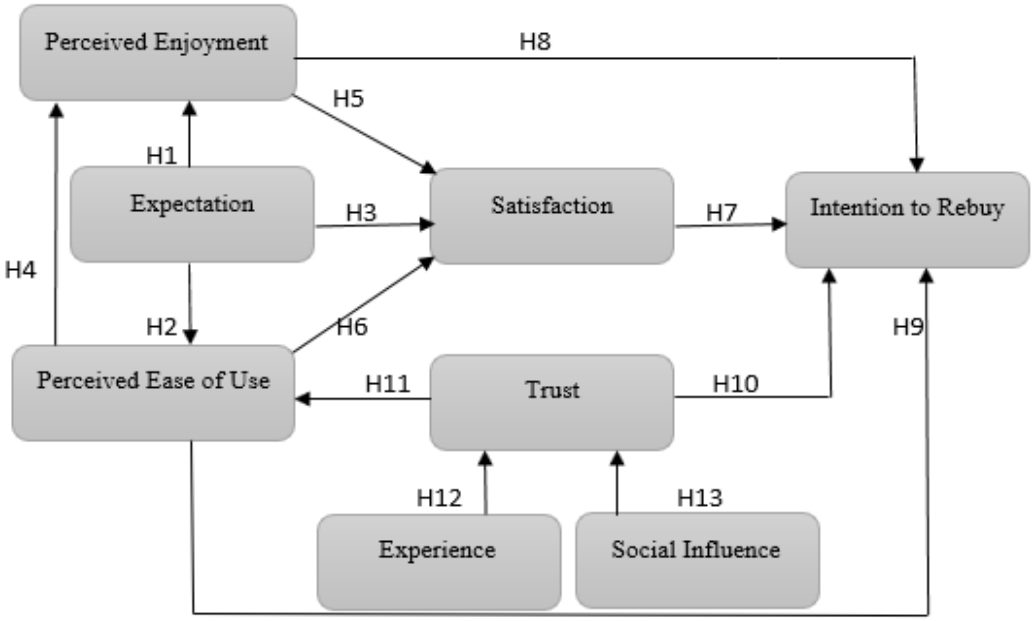

Figure 1. Proposed Model

Results

Data Analysis

This research used (SmartPLS 3) for data examination to evaluate the surveyed data using Partial Least Squares-Structural Equation Modeling (PLS-SEM) (Al-Maroof & Al-Emran, 2018). Because this is an exploratory study, PLS-SEM is ideal for obtaining the best findings (Hair Jr, Hult, Ringle & Sarstedt, 2016; Henseler, Ringle & Sarstedt, 2015). To determine convergent validity in the reflective measurement approach, Hair Jr et al. (2016) suggested that researchers examine all items' outer loadings and the average variance extracted (AVE). The path coefficients of determination were assessed in the structural model (Hair Jr *et al.,* 2016; Henseler *et al.,* 2015; Selya, Rose, Dierker, Hedeker & Mermelstein, 2012). As a result, all of the criteria above were put forth to justify this experiment's measurement and structural model.

Measurement and Structural Model

Hair Jr et al. (2016) stated that each item's reliability and validity should be assessed along with the factor loading. A measure's consistency is referred to as reliability. To be regarded as reliable, a measure should provide consistent results under consistent circumstances, and the value for each item's loading must be equal to or higher than (0.7). Cronbach's Alpha values are also supposed to be equivalent to or higher than (0.7) for composite reliability. 0.5 to 0.7 are considered acceptable, but more than 0.7 and less than 9.5 are considered good, and close to 1 is also acceptable. All of the items in Table 3 meet the requirements. Furthermore, validity is clarified as the grand mean value of the squared loadings of the items linked to the construct, and the AVE is the ordinary measure for determining convergent validity. That's the amount of variation explained by a latent construct's indicators. The construct articulates more than 50 % of the variance of its items if its AVE value is (0.5) or above (Hair Jr et al., 2016). Composite reliability values exceed (0.7), Cronbach's Alpha values are up to standard, and AVE values are more than (0.5), as indicated in Table 3. As a result, the convergent validity of constructs is established. This research should look at the Fornell-Larcker criteria and HTMT to determine discriminant validity (Fornell & Larcker, 1981). AVE value's square root is compared to latent variable correlations using the Fornell-Larcker criteria, which are explained in (Table 4).

Internal Consistency Reliability and Convergent Validity

Table 3 demonstrates that all constructs and indicators correspond to the reflective measurement requirements, i.e., all indicators have loadings greater than 0.7. The AVE is more than 0.5. Composite reliability (CR) values exceed 0.70, and Cronbach's alpha also meets the standard. Finally, the outcomes depicted that all indicators are appropriate, convergence validity is confirmed, and data internal consistency is achieved.

Table 3

Internal Consistency Reliability and Convergent Validity

Construct	Indicators	Loading	AVE	CR	Cronbach	Q^2
Perceived Ease of Use	PEoU1	0.900	0.801	0.889	0.752	0.357
	PEoU2	0.890				
Perceived Enjoyment	PE1	0.944	0.890	0.942	0.876	0.551
	PE2	0.943				
Perceived Expectation	Expt1	0.827	0.692	0.871	0.777	0.372

Construct	Indicators	Loading	AVE	CR	Cronbach	Q^2
	Expt2	0.845				
	Expt3	0.824				
Experience	E1	0.827	0.708	0.879	0.794	0.402
	E2	0.841				
	E3	0.857				
Social Influence	SI1	0.951	0.903	0.949	0.893	0.579
	SI2	0.949				
Trust	T1	0.801	0.675	0.862	0.759	0.346
	T2	0.830				
	T3	0.833				
Satisfaction	S1	0.955	0.909	0.968	0.950	0.759
	S2	0.948				
	S3	0.957				
Intentions to Rebuy	IR1	0.944	0.893	0.962	0.940	0.731
	IR2	0.939				
	IR3	0.952				

Discriminant Validity

Fornell and Larcker (1981)suggest that own constructs' loading should surpass those of other constructs in the model to attain discriminant validity. All constructs in Table 4 meet this criterion.

Table 4

Fornell-Larcker Criterion

	E	Expt	IR	PE	PEOU	S	SI	T
E	0.842							
Expt	0.628	0.832						
IR	0.666	0.604	0.945					
PE	0.564	0.646	0.685	0.943				
PEOU	0.618	0.672	0.724	0.719	0.895			
S	0.607	0.673	0.713	0.646	0.726	0.953		
SI	0.694	0.617	0.550	0.507	0.530	0.616	0.950	
T	0.650	0.545	0.645	0.512	0.561	0.719	0.646	0.821

The Heterotrait-Monotrait (HTMT) correlation criteria evaluate the discriminant validity findings in Table 5. The results satisfy the HTMT (less than 0.9) criteria, implying that discriminant validity has been established *(Henseler et al.,* 2015).

Predictive Validity: Finally, the eminence quality of the measurement model was assured through its predictive validity (Dhir, Shukla & Philosophy, 2018), which is calculated by utilizing the values of communality (Q^2), which must be positive, to ensure the predictive validity of the measurement model. Q^2 higher than 0, 0.25, and 0.50 depict small, medium, and large predictive quality, respectively (Hair, Risher, Sarstedt & Ringle, 2019). For details, please see Table 3.

Table 5

Heterotrait-Monotrait Ratio (HTMT)

	E	Expt	IR	PE	PEOU	S	SI	T
E	-							
Expt	0.799	-						
IR	0.771	0.706	-					
PE	0.676	0.783	0.755	-				
PEOU	0.799	0.879	0.861	0.886	-			
S	0.698	0.784	0.754	0.709	0.860	-		
SI	0.822	0.741	0.601	0.573	0.647	0.668	-	
T	0.835	0.708	0.761	0.626	0.739	0.845	0.784	-

Structural Model Assessment

A bootstrapping method with 5000 sub-samples was performed to evaluate the structural model and verify the assumptions (Fig. 2).

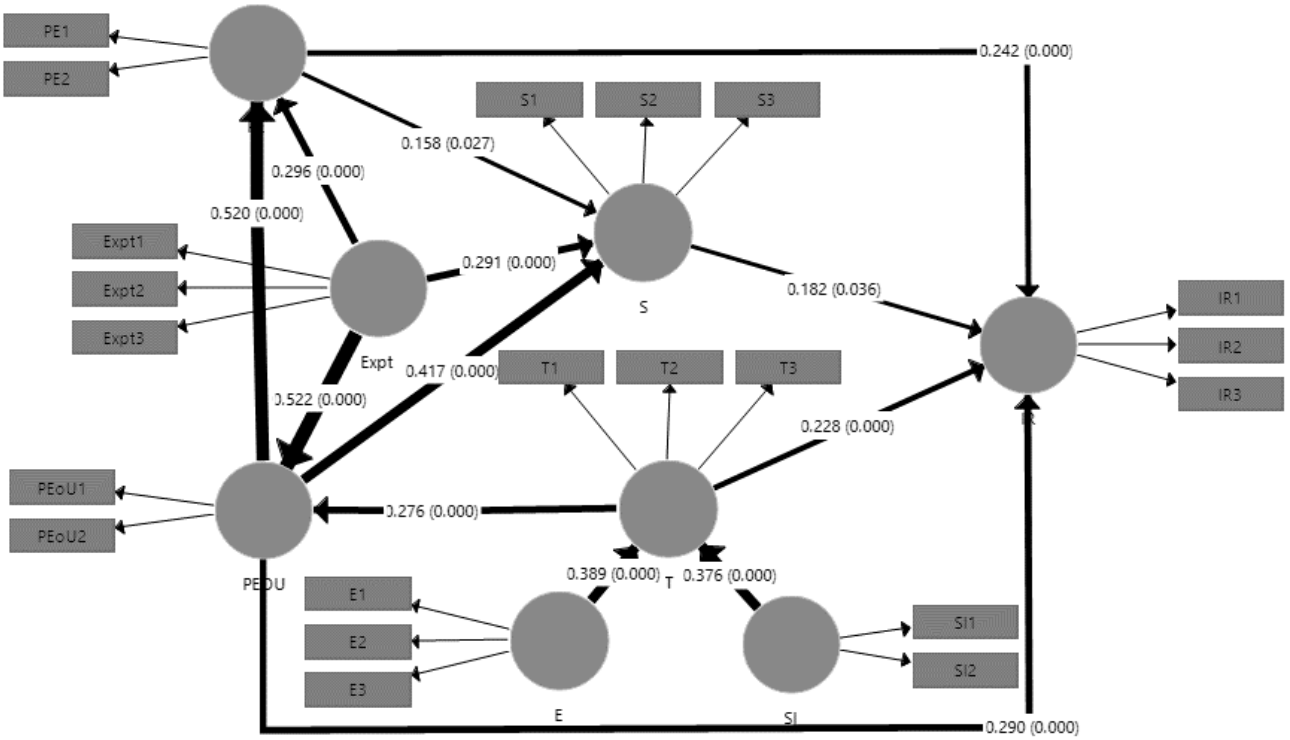

Figure 2. Structural Equation Model

Collinearity

Table 4 indicates that construct correlations are robust, ranging from 0.821 to 0.953. The possibility of multicollinearity could be explicitly investigated using regression analysis. In regression analysis, the variance inflation factor (VIF), which quantifies the extent to which other predictor variables characterize a predictor variable, is a typical metric of collinearity (J. F. Hair, Anderson, Tatham, & William, 1998). A threshold VIF with less than or equivalent to 10 (i.e., tolerance >0.1) is often recommended (A. Hair & Anderson, 1998). In our research, we utilized Smart PLS 3, and the AVE values were lesser than 10. Table 6 shows the VIF values for all of the model's constructs range from 1.423 to 3.133. The VIF of all constructs is less than 3 except one, i.e., for construct Satisfaction 3.133, which is still less than 10, indicating that our model has no collinearity problems.

Table 6

Inner VIF Values

	E	Expt	IR	PE	PEOU	S	SI	T
E								1.929
Expt				1.825	1.423	2.027		
IR								
PE			2.229			2.302		
PEOU			2.745	1.825		2.447		
S			3.133					
SI								1.929
T			2.087		1.423			

Assess Path Coefficient

The path coefficient was examined using a bootstrapping procedure with 5000 subsamples. Table 7 summarizes the testing results of the hypothesis, indicating that the all hypotheses are supported. P values are less than 0.05. Patch coefficients, Mean, standard deviation and T values all are up to standard and meet the given criteria.

Table 7

Hypothesis Testing

Hypothesis	Path	Path Coefficients	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
H1	Expt -> PE	0.296	0.297	0.067	4.447	0.000
H2	Expt -> PEoU	0.522	0.519	0.066	7.903	0.000
H3	Expt -> S	0.291	0.290	0.062	4.706	0.000
H4	PEoU -> PE	0.520	0.519	0.058	9.043	0.000

Hypothesis	Path	Path Coefficients	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
H5	PE -> S	0.158	0.152	0.072	2.212	0.027
H6	PEoU -> S	0.417	0.422	0.068	6.101	0.000
H7	S -> IR	0.182	0.173	0.086	2.104	0.036
H8	PE -> IR	0.242	0.248	0.067	3.640	0.000
H9	PEoU -> IR	0.290	0.293	0.078	3.740	0.000
H10	T -> IR	0.228	0.228	0.062	3.693	0.000
H11	T -> PEoU	0.276	0.281	0.070	3.931	0.000
H12	E -> T	0.389	0.385	0.100	3.887	0.000
H13	SI -> T	0.376	0.380	0.103	3.641	0.000

Discussion

Hypothesis 1, 2, and 3 are consistent with the past studies. Our study depicted that H1 (Expt → PE, B=0.296) expectation is a determining factor of perceived enjoyment (Akinci, Yurcu, & Kasalak, 2018; B. J. E. s. w. a. Kim, 2010; Thong, Hong, & Tam, 2006). There is a positive relationship between expectation and perceived enjoyment (B=0.296, P<0.01). Moreover, a significant positive connection is found between expectation and PEoU (Expt → PEoU, B=0.522, P<0.01). When Bitcoin consumers discover the system is simpler to utilize than expected, they will have a high level of trust in operating it. To put it another way, if the first experience meets their needs, they are much more likely to reaccess the services without putting in any more work or time. H3 (Expt → S, B=0.291, P<0.01) explained the connection between expectation and satisfaction. Consumers would be even more pleased with their Bitcoin transactions if they get high-quality service and said that they have gotten more of it than they expected. Thus, Hypothesis 1,2, and H3are supported.

This study is also in line with the scholars who found that expectation is an essential factor in the intent to utilize a particular fintech, such as in terms of bitcoin (F. Shahzad *et al.,* 2018).

Hypothesis 4 (PEoU → PE, B=0.520, P<0.01) explains the positive relationship between PEoU and perceived enjoyment. Our research is consistent with that of Davis (1989) and Rodrigues et al. (2016). It is stated that a consumer's interest and perceived enjoyment will be increased if the given technology is much easier to utilize. Thus, hypothesis 4 is also supported statistically.

H5 (PE → S, B=0.158, P=0.027) and H6 (PEoU → S, B=0.417, P<0.01) are found to have a positive relationship with satisfaction. This paper's research corresponds with Hsiao et al. (2016) and Joo et al. (2017). The possible explanation for this could be that people who have a greater level of perceived enjoyment from Cryptocurrency purchases are far more satisfied as a result of bitcoin's striking characteristics and the fact that the bitcoin network is simple to utilize and consumers can create bitcoin profiles or accounts in a couple of moments with no extra exertion or cost; these factors increase their level of satisfaction. As a result, H5 and H6 have been verified.

The result for hypotheses 7, 8, and 9 explained that satisfaction, perceived enjoyment, and PEoU significantly impact the consumers' intention to rebuy the cryptocurrency. There is a positive relationship found in this research. Our research of hypothesis 7 (S → IR, B=0.182, P=0.036) corresponds to the research of Hsu et al. (2015). Likewise, satisfaction has been linked to the willingness to keep utilizing blogs (Ifinedo & Technology, 2018) and mobile social-related apps (Hsiao et al., 2016). The intention to use and rebuy Bitcoin will be reinforced if the prospective profits of Bitcoin acquisition fulfill the consumers' satisfaction. As a result, H7 is recommended.

Hypothesis 8 (PE → IR, B=0.242. P<0.01) and hypothesis 9 (PEoU → IR, B=0.290, P<0.01) impact intentions to rebuy cryptocurrency significantly, corresponding to the research of Oghuma et al. (2016) and Zong, Yang, Bao, and Applications (2019). One potential explanation is if a Bitcoin consumer is innately driven (perceived enjoyment) and does the transaction for its intrinsic enjoyment, the intention to rebuy will be strengthened. Likewise, a user-friendly and simple-to-use system like Bitcoin would increase users' long-term intentions. As a result, H8 and H9 have been verified.

H10 (T → IR, B=0.228, P<0.01) explains that trust positively affects the intentions to rebuy the cryptocurrency. Trust positively influences customers' intentions toward blockchain-based apps. These impacts have something to do with the user, trust, and belief. A consumer who has a high level of trust is more likely to utilize new or previously used technology, which may raise customer expectations and encourage them to use such new blockchain technology-based applications. Our findings align with that of Albayati, Kim, and Rho (2020).

H11 (T → PEoU, B=0.276, P<0.01) explains the positive relationship between trust and PEoU. Trust is a critical component in this research since it substantially impacts intention. It is one of the most effective ways to inspire people to believe in technology and boost their trust in how efficiently it can be utilized with less effort and low complications level. Consumers, because of their traits, trust that the relevant technology will be simple to use. Our research does agree with Albayati et al. (2020).

H12 (E → T, B=0.389, P<0.01) describes the link between experience and trust. It is found that there is a positive relationship. According to studies, the more exposure and experience a person has with the latest tech, the more they engage with it. The confidence in other technologies is bolstered by prior experience with the same or comparable technology. Additionally, consumer experience, cognition, and conduct are real-world experiences and implementations that may influence their trust in and adoption or rebuy of

cryptocurrencies. When a consumer has good experience, he/she is more prone to use it again without fear and trusts that particular technology. Our research corresponds to the study of Chaouali et al. (2016) and Kesharwani and Bisht (2012).

H13: (SI → T, B=0.376, P<0.01) explains the connection between social influence and trust. If we consider social influence with trust, we find that this social influence has significant beneficial impacts on trust. Social influence has significant impact on people's lives and behaviors. When people engage with one another, there will be a considerable effect. Thousands of personal ideas and beliefs are shared on social media, influencing other people's decisions to use or not utilize new technologies. Because trust is essential in blockchain technology for consumers' behavior to be supported, the social element is a big part. Our study corresponds with the research of Chaouali et al. (2016).

Conclusion

The current research uses the ECT and TAM to look at Pakistani people's intention to rebuy Bitcoin. According to the findings, the expectation is significantly linked to enjoyment, ease of use, and satisfaction. There is also evidence of a link between perceived ease of use and perceived enjoyment. Furthermore, satisfaction is predicted by perceived enjoyment and perceived ease of use. This research also confirms that perceived enjoyment, ease of use, and satisfaction substantially affect intentions to rebuy Bitcoin. Social influence, trust, and experience were also found to have a strong positive impact on consumers. According to the results, all of these determinants are significantly predictive of the rebuy of Bitcoin. By considering the type of the rebuy intention, the study will assist Bitcoin regulators in providing additional incentives to Digital currency users and formulating/updating regulations. The results are helpful for government agencies in managing blockchain technology in corporate operations and commercial banks in improving and upgrading their blockchain goods and services to get a higher profit margin. The regularization and clustering algorithm of cryptocurrencies and the deployment of blockchain technology are recommended in this research. Last but not least, the beginner user's literacy is critical.

Recommendation

It is suggested that blockchain technology be deployed and regulatory rules for Cryptocurrencies such as bitcoin be established. There are many ways to describe the practical consequences. First, the results may be helpful to those interested in the functionality of the Bitcoin system and who want to increase their trust in its use. Because not all consumers are professionals in running computer networks and digital sites, and crypto technologies are still in their formative stages, learnability problems and beginner user education must be considered (Alshamsi & Andras, 2019).

Second, Digital currency apps that fulfill the expectations and satisfaction of users will motivate users to buy Bitcoin. Lower prices, robust and smooth transactions, confidentiality, and inter-use may contribute to satisfaction. Several developing market financial and banking infrastructures are inefficient, and certain government restrictions exacerbate the problem. As a result, it is recommended that governments, corporations, banks, and other investment companies use blockchain technologies to optimize their workflows.

Third, Bitcoin offers several amusement-related characteristics. More enjoyment-related qualities, such as ethnic-, regional-, national-, and religious-specific traits, should be included in this research to enhance user satisfaction.

Fourth, payment systems have been steadily improving in terms of ease of use. The digital economy and e - payment are growing year after year, while the usage of cash and checks is declining. Companies utilizing conventional means of payment may move to blockchain technologies to obtain a significant position in marketplaces globally. Thanks to the benefits of blockchain technology, such a transition will enrich, ease, and relieve consumers, corporations, and businesses.

Finally, Bitcoin is accepted as a form of payment by thousands of companies (Yelowitz & Wilson, 2015). The US Government, Indonesia, India, Japan, the European Union, and others have established Bitcoin regularity regulations. It means that governments worldwide will begin to pay heed to Cryptocurrencies in the monetary sector and enable them to engage with certain other market assets. In contrast, the lack of a comprehensive regulatory framework has resulted in misuse and the disappearance of Cryptos in certain nations and industries, reducing their practical utility. As a result, governments, regulators, or policymakers in Bitcoin misuse or missing economies should create procedures for managing Cryptos by emulating the above-mentioned pilot nations.

Limitation

There are several limits to this study, but it does open up possibilities for further research. For starters, it's being done in a situation where finance companies aren't required to interact with cryptocurrencies, which restricts our data set. Although much research suggested a small sample data set (Wolf, Harrington, Clark, Miller, & measurement, 2013), additional research with a sufficient sample size may overcome this restriction. Future work on samples from countries like the US and Japan, where business organizations are running cryptocurrencies, may provide helpful information.

Future Work

Future researchers are urged to look at the different uses of rebuy of Bitcoin (e.g., investment purposes). Second, many global investments and commercial banks and exchanges have already promoted Bitcoin-linked securities, funds, and upcoming agreements with Bitcoin (S. J. H. Shahzad, Bouri, Roubaud, & Kristoufek, 2020); thus, portfolio/risk administrators may be subjects of additional research on their plans to utilize Bitcoin as a strategy and portfolio diversifier.

Third, since Bitcoin decentralizes financial networks and is vulnerable to hacker assaults, no centralized authority may be accessible to ensure user security. Furthermore, the procedure cannot be reverted when the transaction is completed. Future researchers should look at problems like Bitcoin, making it difficult for people to buy it.

Fourth, it's not like all relevant variables that may constitute determinants of intention to rebuy Bitcoin are taken into account. Qiuyan reported that psychological, personal, social, legal, and cultural variables impact buying decisions (Zhong *et al.,* 2019). This research further researched social impacts and determiners, such as trust and experience. Still, it is recommended that researchers research deeply with culture as a moderator; thus, these elements may be incorporated in future studies to understand better.

Fifth, the absence of laws around Bitcoin may promote black market activity; therefore, it's essential to look into the dark side of Bitcoin since it may well be used for tax avoidance, money laundering, terrorist funding, and the purchase of illicit goods.

Note

Even though Bitcoin is illegal in Pakistan, those who wish to trade cryptocurrencies will undoubtedly find a way. According to interviews conducted on Whatsapp and other social and Bitcoin-related platforms, people may trade cryptocurrencies on prohibited apps that can be accessible via VPNs (virtual private networks). It is neither illegal nor legal in Pakistan, although its use and trade are not permitted. As a result, it may be deemed unlawful.

Authors' Contribution:

Chunling Li: Supervision, Fund acquisition, Formal Analysis; Nosherwan Khaliq: Conceptualization, Writing-original draft; Jozsef Popp: Formal analysis, Resources; Leslie Chinove: Software; Usama Khaliq: Writing-Reviewing and Editing, Formal analysis; Judit Olah; Formal analysis, Resources

Declaration of Interest: none

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Annex: A

Constructs	Descriptions	Source
Perceived Ease of Use		Moon et al. (2001)
PEoU	It is easy for me to become skillful at purchasing or using Bitcoin.	
PEoU	It is easy to remember the functions of Bitcoin.	
Perceived Enjoyment		Moon et al. (2001)
PE1	When interacting with Bitcoin, I do not realize the time elapsed.	
PE2	Using or purchasing Bitcoin gives enjoyment to me in my task.	
Perceived Expectation		Bhattacherjee (2001)
Expt1	My Bitcoin buying experience exceeded my expectations.	
Expt2	Purchasing cryptocurrencies such as Bitcoin helped me achieve my goals more quickly.	
Expt 3	Overall, most of my expectations from purchasing Bitcoins were confirmed.	
Experience		Hackbarth et al. (2003)
E1	I have sufficient experience and understanding of how to execute transactions using the blockchain/cryptocurrency system (Application).	
E2	For foreign monetary transactions, I prefer to utilize online apps rather than offline channels (i.e., online: some application or online platform/ offline: visit the bank).	
E3	I'm motivated to utilize blockchain/cryptocurrency because of my previous experience and understanding of various money transactions (Application).	
Social Influence		Chaouali et al. (2016)
SI1	I will keep buying cryptocurrencies if people in my community widely use the service.	
SI2	I will keep rebuying this cryptocurrency if my supervisors/seniors use it continually.	
Trust		McCloskey and Computing (2006)
T1	I trust the benefits of investing in Bitcoin	
T2	I believe that Bitcoin investment maintained a consistent performance over a long period.	
T3	I believe that Bitcoin investments have performed efficiently, even if not continuously monitored.	
Satisfaction		M.-J. Kim et al. (2011)
S1	I am very satisfied with the purchase of Bitcoin by using Bitcoin Wallet.	
S2	Purchasing Bitcoins meets my needs.	
S3	Overall I am satisfied with the cryptocurrencies such as Bitcoins.	
Intention to Rebuy		Bhattacherjee (2001)
IR1	Instead of stopping my Bitcoin purchases, I intend to continue them.	
IR2	I will encourage others to use and buy Bitcoin (as a mode of exchange).	
IR3	I want to talk positively about Bitcoins on relevant websites to others.	

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