

UNDERSTANDING IMPULSIVE ATTITUDE AND CRYPTOCURRENCY INVESTMENT BEHAVIOUR AMONG MILLENNIALS: THE ROLE OF FACILITATING CONDITIONS AND IMITATING OTHERS

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ABSTRACT

Purpose

This study seeks to create a conceptual framework to explain the cryptocurrency investment behavior of millennials by combining the Theory of Planned Behaviour and behavioural finance theories. The study specifically focuses on how the attitude of impulsiveness, subjective norms and perceived behavioural control affect cryptocurrency investment behaviour. Additionally, the framework suggests facilitating conditions and imitating others are important positive antecedents of impulsive attitudes.

Design

The paper utilizes an exploratory and conceptual research design in which a great deal of theory and literature-based analysis were undertaken. The conceptual framework is constructed based on the theory of planned behavior and behavioural finance literature to understand the speculative investment behaviour in the cryptocurrency market. Five theoretical propositions are proposed in this study that explain the interrelationship of the behavioural, technological and socio-psychological factors influencing the investment behaviour of millennials in cryptocurrencies.

Findings

Based on the conceptual analysis, it is suggested that the attitude of impulsiveness, subjective norms and perceived behavioural control are very influential on the behaviour of investing in cryptocurrency. The framework also shows that facilitating conditions and imitating others have positive effect on the formation of investors' impulsive attitude.

Originality

The study makes the novel contribution to the existing literature on digital finance and investment behaviour by integrating behavioural finance into theory of planned behaviour. Rather than investigating behavioural variables separately, the study explores how emotional biases, peer influence, technology convenience and impulsive attitude collectively influence cryptocurrency investment behaviour.

Keywords: Cryptocurrency Investment Behaviour; Impulsive Attitude; Subjective Norms; Perceived Behavioural Control; Facilitating Conditions; Imitating Others

1. INTRODUCTION

Cryptocurrency has been one of the most transformative advancements in the present day worldwide monetary framework. Conventional financial systems are based on centralized banking and other institutions, while cryptocurrencies are based on decentralized blockchain technology, which enables peer-to-peer, middlemen-free transactions (Yermack, 2015). By contrast, many cryptocurrencies do not have a stable valuation anchor, and consequently have prices that are highly sensitive to investor sentiment, social narratives and speculative expectations (Cheah & Fry, 2015). As a result, the price of cryptocurrencies can often swing wildly in a matter of hours, making them one of the most volatile forms of investment in today's market. The speculative element of cryptocurrency investing has thus sparked growing interest in the academic world of behavioural finance, which suggests that such markets may often share the traits of asset bubbles, herd mentality, and momentum fuelled participation (Shiller, 2015). Speculative behaviour is present in these digitally networked environments, which play a large role in normalising this type of activity and the emotional response to sudden gains or losses (Corbet et al., 2019). Consequently, FOMO (fear of missing out), peer validation, social proof and emotional excitement often play a more important role in cryptocurrency investing than systematic financial analysis.

Millennials have been one of the most active groups when it comes to cryptocurrency markets. Millennials tend to be more at ease with financial transactions involving their mobile applications, online trading platforms, and electronic payment methods when compared to older generations who typically use traditional banking and investment channels. (Priporas et al., 2017) Their extensive experience with digital culture and online communities makes them more likely to participate in speculative financial activities like cryptocurrency trading. Furthermore, millennials are considered less risk averse and more innovative than other generations, and this also has a bearing on their involvement in highly volatile digital asset markets (Bhilawadikar & Garg, 2020).

Cryptocurrency trading platforms feature user-friendly interfaces, real-time notifications, streamlined registration procedures, and 24/7 trading options, making the investment process more accessible than ever. The TATs suggest that friction in the execution of an activity and accessibility are significant factors to increase behavioural participation in digital systems (Venkatesh et al., 2003). Thus, cryptocurrency trading activities have merged into the daily lives of digital citizens, empowering traders to carry out market transactions at rapid speed and continuously. The tenets of behavioural finance question this notion, however, as there are many instances in which individuals act pursuant to their cognitive biases, emotional responses, and heuristics when faced with uncertainty as they make financial choices (Kahneman & Tversky, 1979). Cryptocurrency markets are a highly speculative space, and the emotional reactions to the price changes can be more influential than rational evaluation because of the high volatility, social influence, and information overload.

For this reason, the present study adopts the theory of Planned Behaviour as the main theory to address the cryptocurrency investment behavior. The Theory of Planned Behaviour (TPB) model (Ajzen, 1991) states that people's attitudes, subjective norms and perceived behavioural control all are important drivers of human behaviour. In the context of investing in cryptocurrencies, impulsive attitude is an emotional and spontaneous behavioral orientation towards the speculative digital asset. In the case of cryptocurrencies, subjective norms play a crucial role because social media communities, peers, influencers, and investment groups on the web have a strong influence on cryptocurrency involvement. Perceived behavioural control is also important because investors' familiarity with technology and their perceived competence in using digital trading platforms could impact on investor participation in investment. But in speculative digital world, perceived BPC may

not always relate to actual BPC and may instead provide an illusion of BPC, which may result in excessive risk taking behaviour (Barberis & Thaler, 2003). This study uses these TPB constructs, along with the additional variable of subjective knowledge, which is a moderating variable for cryptocurrency investment behaviour. Subjective knowledge is the knowledge that any individual thinks they have and how familiar they are with cryptocurrency investments.

The main aims of this study are:

- To analyze how impulsive attitude affects the behaviour of investment in cryptocurrencies.
- To investigate the subjective norm and perceived behavioural control as factors in the participation to cryptocurrencies.
- To explore the role of facilitating conditions and imitation of others on impulsive attitude.

The rest of the paper is divided into six main sections. The second section reflects the literature review and addresses the constructs in the form of concepts that relate to cryptocurrency investment behaviour. The third section provides an explanation about the theoretical framework based on the Theory of Planned Behaviour. In the fourth section, the conceptual model and theoretical propositions are developed. Theoretical, practical and societal implications of the study are outlined in the fifth section. Finally, in section 6, the conclusion, limitations, and future research directions are provided.

2. REVIEW OF LITERATURE AND CONCEPTUAL CONSTRUCTS

The boom of the cryptocurrency markets has transformed modern investment practice by creating technologically-driven, socially-reinforced and highly speculative financial systems. The participation in cryptocurrencies is more strongly influenced by the psychology of the investor and the digital communication network, as well as by behavioural reinforcement mechanisms, in contrast to traditional financial assets, which are normally assessed based on economic fundamentals and institutional regulation. The present chapter conducts a critical review of theoretical as well as empirical related literature on cryptocurrency investment behaviour and presents the conceptual constructs of the proposed framework.

2.1 Cryptocurrency Investment Behaviour

The advent of cryptocurrency markets has led to a growing interest in cryptocurrency investment behaviour as part of the field of behavioural finance and digital financial studies, given the speculative and volatile nature of these markets. Cryptocurrencies don't always have cash flow generation, earnings or macroeconomic productivity as intrinsic valuation mechanisms of these assets, as opposed to more traditional investment assets like equities or bonds. The prices of cryptocurrencies, therefore, are very sensitive to market sentiment, narratives of investors and their speculation, and not to any financial fundamentals (Cheah & Fry, 2015).

Speculative asset markets are often not based on financial analysis, but on social contagion, excitement and narrative amplification, wrote Robert Shiller (2015). These observations have been captured in cryptocurrency texts where surges in price can trigger a kind of "FOMO" (fear of missing out) that can drive investors to make hasty investments without careful risk analysis (Corbet et al., 2019). It has also been suggested in the behavioural finance literature that cryptocurrency investors often use heuristics and emotional signals when facing uncertainty. Daniel Kahneman and Amos Tversky (1979) proposed that people do not make rational decisions, but tend to use cognitive heuristics, especially in situations that have a high degree of risk and uncertainty.

The tendency among people to imitate observable behaviour when under uncertainty, especially when the individual has little personal knowledge of such behaviour is explained by Banerjee (1992). Empirical research, too, suggests that cryptocurrency trading habits go along with enhanced risk-taking tendencies and a speculative orientation. In a 2019 study, Pelster et al. found that traders of cryptocurrencies tend to exhibit more risk-seeking behaviour than do conventional investors. Likewise, Baur et al. (2018) suggested that the cryptocurrencies are more of an asset to speculate than a stable medium of exchange because of their volatility and unknown valuation systems. The above observations show that the investment behavior in cryptocurrencies cannot be explained by traditional rational financial theories, and the behavior of investment needs to be explained from a behavioural and socio-psychological perspective.

2.2 Impulsive Attitude

Impulsive attitude is an emotional and spontaneous attitude towards investment participation that is done without careful and thorough consideration. The behavioural finance literature always shows that investors, under certain conditions, often make decisions based on emotion and heuristic rather than systematic assessment (Kahneman and Tversky, 1979). The volatile nature of the prices can create emotional reactions and sense of urgency among investors, leading them to make impulsive decisions based on short-term gains and expectations. Shiller (2015) posited that emotional contagion and narrative momentum are substantial forces in speculative financial markets, whereby investor reaction to the markets is motivated by a shared sense of excitement, yet not the valuation of the financial markets. Another significant influence that can lead to impulsive attitude in the participation of cryptocurrencies is fear of missing out (FOMO). The fear of missing out (FOMO) is yet another element that can prompt impulsive attitude in cryptocurrency participation. Przybylski et al. (2013) stated that people suffering from FOMO have a tendency to participate in the present behaviour so as to prevent being excluded from the enjoying experience. Shahzad et al. (2024) found that the decentralization and transparency that exist in blockchain can promote impulsive purchasing by minimizing perceived risk and maximizing trust. Ryu et al. (2019) discovered that Bitcoin investment behaviour was closely related to an imbalance between impulsivity and self-control.

Barber and Odean (2001) conclude that investors with strong emotions may trade more because of increased confidence in their forecasting skills. People who are following the stories of influencers on social media platforms, as well as those that have been attracted to the boom and bust of the cryptocurrency market, can then become impulsive when it comes to participating in the market. In the present study, the behavioral attribute called impulsive attitude is conceptualized as the main mediating factor between emotional and socio-digital factors and cryptocurrency investment participation. Ryu et al. (2019) discovered that Bitcoin investment behaviour was closely related to an imbalance between impulsivity and self-control.

2.3 Facilitating Conditions

Facilitating conditions are the structural and technological aspects that ease the way in which a behavior can be performed, and raise the likelihood of engaging in cryptocurrency. Technological availability, ease of trading applications, mobile financial platforms, streamlined onboarding procedures, instant market interaction, and minimal barriers to transactions are all key aspects of these conditions. Research on technology adoption is consistently showing that if the behavioural friction is reduced, there will be more participation in digital systems (Venkatesh et al., 2003). According to the Unified Theory of Acceptance and Use of Technology (UTAUT) developed by Venkatesh et al. (2003), facilitating conditions is a factor that will benefit the behaviour intention and the use of technology, by increasing the ease of perceived use and convenience. In the cryptocurrency arena, streamlined

technology can lead to more people investing spontaneously, as the process of investing is fast and easy to psychologically overcome. The same applies to Taylor and Todd (1995) who stated that the more simple the technology the less behavioural implementation effort and uncertainty. Ayedh et al. (2021) emphasized the significance of facilitating conditions in the form of governments' willingness to support and promote cryptocurrency investments, either directly or indirectly.

Hussain et al. (2026) studied in Pakistan and found that it reaffirmed the pivotal role of facilitating conditions in influencing people's behavioral intentions to embrace cryptocurrency. Real-time price notifications, gamified interfaces and immediate transaction capabilities could further stimulate impulsive orientation by diminishing rational evaluation opportunities. In this way, facilitating conditions can indirectly reinforce speculative investment behaviour by facilitating participation based on emotions.

2.4 Imitating Others

Imitating others is the behavioral participation that is guided by observation of the behavior of peers, influencers, online communities, and market players who are visible in the public market. Under conditions of uncertainty, people often copy observed behaviour, as others' behaviour is seen as a 'signal' about the appropriate behaviours to use in making decisions, Banerjee (1992) suggested. Bikhchandani et al. (1992) provided additional explanations of informational cascades that occur when people do not consider their own information but rather follow the crowd in making decisions.

Social proof theory further indicates that behaviours are seen as appropriate if they are commonplace in society (Cialdini & Goldstein, 2004). The Millennials are good at watching videos about crypto success, viral trading tips, and big gains in the market, which boosts the emulation of behaviour and the level of emotional involvement. Saltik et al. (2024) suggests that at times when market volatility peaks, for example, in times of the COVID-19 crisis, investors become prone to behaving according to how others act before them, a process mostly stimulated by news and hearsay conveyed via social networks. Studies have shown that imitative behaviour is particularly strong in digitally networked financial settings where behaviour is visible at all times and amplified in the social sphere. Shiller (2015) claimed that the "narrative contagion" effect in which emotional euphoria and perceived group success create an effect on asset speculation decisions was common. This leads to reinforcement of impulsive engagement and speculative momentum in cryptocurrency markets.

2.5 Subjective Norms

Subjective norms are social influences on behavioural participation, as seen from the perspective of the individual. The Theory of Planned Behaviour has been found to predict behaviour often on the basis of perceived expectations and approval from socially significant groups (Ajzen, 1991). Cialdini and Goldstein (2004) believe that people tend to adjust their behavior to fit in with perceived social norms to avoid uncertainty and social rejection. The social reinforcement of cryptocurrency involvement among millennials can be illustrated by the communities that surround the web phenomenon of speculation and the celebration of such investments. Tjondro et al. (2023) research shows that the investors were persuaded to forgo cryptocurrency investments during a difficult period by the most influential people in their social surroundings, such as peers, as well as price patterns. Subjective norms are also found to be more influential in highly uncertain situations as people seek informational reassurance from their collective behaviour.

2.6. Perceived Behavioural Control (PBC)

Perceived behavioural control (PBC) is the perceived ability, confidence, and control of the behaviour (Ajzen, 1991). A study on technology adoption shows that perceived behavioural control plays a

crucial role in people's involvement in digital financial systems as those who think they can navigate technology well are more likely to participate in these systems (Venkatesh et al., 2003). Pilatin et al. (2024) defined perceived behaviour control as an individual's perception of how simple or difficult it is to carry out a particular behaviour." It is explained that perceived behaviour control refers to how simple and comfortable it seems to control a particular behaviour.Odean (1998) has suggested that investors often have a false impression of their predictive ability and market understanding and consequently take excessive risk-taking behaviour. The relationship between illusion of control and overtrading, excessive confidence and speculative participation is a consistent finding in behavioural finance literature (Barberis & Thaler, 2003). Thus, while perceived competence in cryptocurrency contexts may not always accurately reflect objective competence, it can instead result in risky behaviour, as participants feel empowered by perceived technology to invest in the project. Therefore, perceived competence in cryptocurrency contexts may not be accurate and can instead lead to risky behaviour, as participants feel empowered by perceived technology to invest in the project.

Table;Theory Mapping of Cryptocurrency Investment Behaviour Literature

No.	Authors (Year)	FC	IO	IA	SN	PBC	CIB
1	Ajzen (1991)			✓	✓	✓	✓
2	Kahneman & Tversky (1979)			✓			✓
3	Barber & Odean (2001)			✓		✓	✓
4	Banerjee (1992)		✓	✓	✓		✓
5	Bikhchandani et al. (1992)		✓	✓	✓		✓
6	Venkatesh et al. (2003)	✓		✓		✓	✓
7	Taylor & Todd (1995)	✓		✓		✓	✓
8	Shiller (2015)		✓	✓	✓		✓
9	Corbet et al. (2019)		✓	✓			✓
10	Hussain et al. (2026)	✓			✓		✓
11	Cialdini & Goldstein (2004)		✓		✓		✓
12	Odean (1998)			✓		✓	✓
13	Saltik et al.(2024)		✓				✓
14	Tjondro et al. (2023)				✓		✓
15	Shahzad et al. (2024)			✓			
16	Ryu et al. (2019)			✓	✓	✓	✓
17	Ayedh et al. (2021)	✓			✓		✓
18	Pelster et al. (2019)			✓			✓
19	Pilatin et al. (2024)				✓	✓	✓

3. THEORETICAL FRAMEWORK

This study was theoretically underpinned by the Theory of Planned Behaviour (TPB), which is one of the most influential socio-psychological theories explaining human behavioural intention and human behavioural execution. TPB was developed by Icek Ajzen (1991) who states that three main determinants of human behaviour are attitude toward the behaviour, subjective norms and perceived behavioural control.

3.1. Theory of Planned Behaviour (TPB)

The Theory of Planned Behaviour has been based on the previous theory developed by Fishbein and Ajzen (1975), The Theory of Reasoned Action. The Theory of Reasoned Action has mainly emphasized attitudes and subjective norms, but the TPB added perceived behavioural control as another factor to explain behaviours with uncertainty, limited behaviour control, or perceived

capability constraints (Ajzen, 1991). The cryptocurrency landscape is one of extreme uncertainty and speculation, with the regularity of the financial markets being seriously undermined by the speed of volatility, the lack of information and the volatility of the market sentiment. Thus, TPB offers a theoretically appropriate explanation as to why people invest in cryptocurrencies despite the high degree of uncertainty and financial risk they possess.

3.2 Attitude and Cryptocurrency Investment Behaviour

In TPB, attitude is the positive or negative judgment that people have about a specific behavior (Ajzen, 1991). The process of forming attitude is a combination of beliefs about expected behavior consequences, and emotional orientation toward the behavior. The investment decision-making literature of behavioural finance repeatedly shows that investors often fall prey to heuristics and emotions rather than rational systematic analyses when making investment decisions under uncertainty. Amos Tversky and Daniel Kahneman (1979) proposed the prospect theory in which they proposed that people use mental rules of thumb in environments of uncertainty. In cryptocurrency markets, where market conditions are constantly changing and there is a lot of investment speculation, such heuristic participation is often more prevalent. In this regard, the present research treats the attitudinal component of TPB as the impulsive attitude in predicting cryptocurrency participation. In his 2015 book, Shiller noted that as in other speculative periods, the collective "excitement" and emotional "participation" of financial markets can often outcompete objective economic analysis. As such, impulsive attitude serves to be an important behavioural mechanism that is needed to explain the cryptocurrency investment behaviour of the millennials.

3.3. Social Media and the Social Sphere in Crypto Markets

The subjective norms are the social pressures that are perceived to affect participation in behaviour (Ajzen, 1991). Social influence theory (Cialdini & Goldstein, 2004) states that people are often influenced by the behaviour of others to minimise uncertainty and gain social acceptance. Under conditions of uncertainty, individuals may also copy observed behaviour since their actions are perceived as signals to them about what they should do (Banerjee, 1992). The present study thus introduces a direct effect of subjective norms on cryptocurrency investment behavior in the TPB model.

3.4. Perceived Behavioural Control and Perceived Capability

Perceived behavioural control (PBC) is defined as a person's perception of his or her ability, confidence, and control in physical actions (Ajzen, 1991). The idea of high confidence in technological systems and high technological involvement was proposed by Venkatesh et al. (2003) and they inferred that individuals with high confidence in technological systems are more likely to use digital platforms and to be involved in technology mediated behaviour. Likewise, Taylor and Todd (1995) found that the ease of use and technological accessibility were significant factors in behavioural participation with online systems.

The concept of illusion of control, which suggests that people overestimate their predictive power and their knowledge of the market under uncertainty, is introduced in the behavioural finance literature (Odean, 1998). Barberis and Thaler (2003) suggested that the illusion of control often plays a role in over-conservative risk taking and speculative involvement in financial markets. At the same time, the perceived behavioural control in cryptocurrency systems can also enhance the behaviour of participation and boost risky and impulsive investment behaviour. The perceived BC of the present study is thus proposed as a behavioural determinant that can be shaped by technological familiarity, digital confidence and perceived market competence.

4. CONCEPTUAL MODEL DEVELOPMENT AND PROPOSITION BUILDING

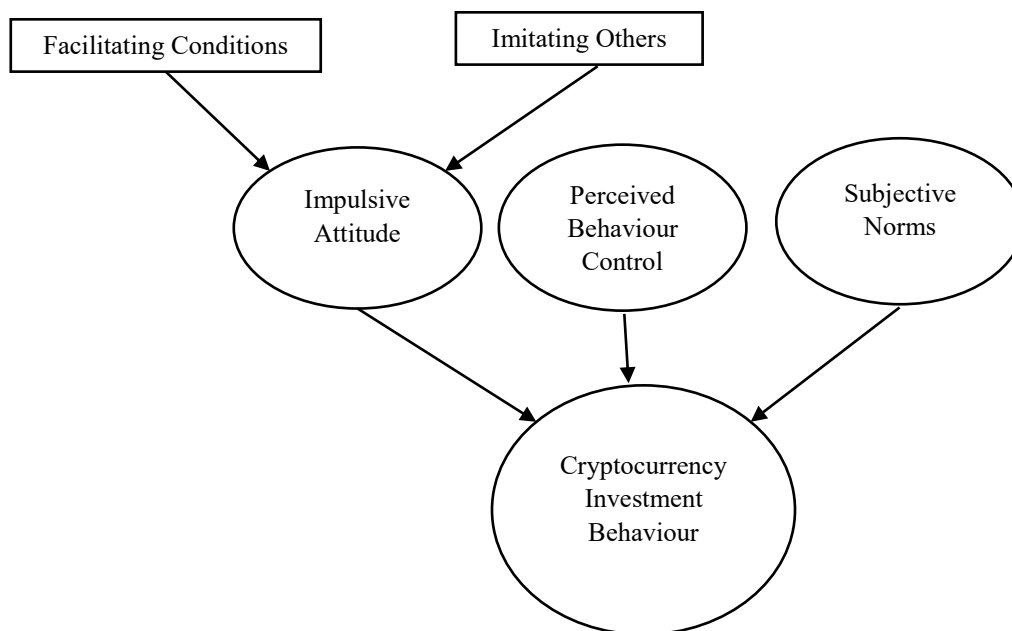


Figure 1: Conceptual Model Development

This part builds up the conceptual context that illustrates the theory of planned behaviour and behavioural finance to explain cryptocurrency investment behavior among millennials. The conceptual model proposed examines how the psychological predispositions and the technological facilitation of investments in cryptocurrencies interact with the socially reinforced behavioural mechanisms to influence investment behaviour. More precisely, the framework theorises impulsive attitude as a mediating behavioural construct between facilitating conditions and imitation behaviour and the involvement in cryptocurrencies. In addition, subjective norms directly and perceived behavior control indirectly affect the investment behavior

4.1 Facilitating Conditions and Impulsive Attitude

Consistent with the technology adoption literature, the lower the behavioural friction, the more likely a user is to participate in a digital system, as the user perceives that the digital system will require less effort and complexity to execute the behaviour (Venkatesh et al., 2003). Taylor and Todd (1995) made the argument that simplified technological systems make for increased behavioural implementation, since users view the execution of the system to be less difficult and uncertainty about participation is reduced. The environment may have a powerful influence on behavioural decisions, as may digital nudges that can influence participation patterns, as Thaler and Sunstein (2008) have explained. Ayedh et al. (2021) hypothesized that the facilitating conditions have a favourable impact on the intention of investors to invest in cryptocurrency.

Moreover, millennials are well connected in digital environments and are more technologically savvy than previous generations. Hussain et al. (2026) studied that when governments provide favorable policies and people have access to the available technological infrastructure, the adoption of cryptocurrency is more likely. Based on this, the present study proposes that facilitating conditions will positively affect the impulsive attitude as the accessibility and ease of using technology will decrease rational obstacles and enhance emotional participation orientation in cryptocurrency markets.

Proposition 1 (P1)

The presence of the facilitating conditions has a positive influence on the impulsive attitude.

4.2. Imitating others and impulsive attitude

Imitation behaviour is the behavior that is affected by what others do in the social and digital environment. People often see other people's actions as signals of what to do in ambiguous situations (Banerjee, 1992). When there is uncertainty and informational asymmetry, individuals tend to adopt the group behaviour that they observe rather than relying on their own rational assessment, according to informational cascade theory (Bikhchandani et al., 1992). A second theory is social proof theory—people feel that a behaviour is correct or legitimate when many others engage in it in their social surroundings (Cialdini & Goldstein, 2004). Social media platforms have been buzzing with cryptocurrency trends as friends, influencers, celebrities, and online investment communities share information about market gains, investment opportunities, and predictions.

Boxer and Thompson (2020) defined that by fostering an environment with more favourable information about cryptocurrency investments, encourage potential investors to commit to making an investment. The influence of social media on the reinforcement of herding behavior is discussed thoroughly by Huang and Zhang (2023), with the authors citing that the effects of social media platforms, especially in periods of uncertainty, tend to fuel the heightened imitation of investment practices. The current study, therefore, posits the positive relationship between imitation behaviour and the attitude of impulsiveness among cryptocurrency investors.

Proposition 2 (P2)

Imitating Others has a positive impact on impulsive attitude.

4.3 Impulsive Attitude and Cryptocurrency Investment Behaviour

The behavioural finance literature is full of examples of financially participatory behaviors being more likely to be performed by emotionally stimulated investors (Kahneman & Tversky, 1979). When it comes to cryptocurrency investments, decisions are often made based on excitement, urgency, and potential for quick profits, rather than on a systematic financial analysis. Shiller (2015) suggested that speculative asset markets often function via emotional contagion and collective excitement, in which narratives become the basis of participation in the market rather than sound economic fundamentals.

Empirical research also shows that the speculative orientation and behavioural impulsivity of cryptocurrency traders are higher than that of traditional investors (Pelster et al., 2019). Ryu et al. (2019) study discovered that a combination of a strong impulse and a lack of self-control underlies investment behaviour in the context of Bitcoin. In the present conceptualization, impulsive attitude is proposed as a core behavioural mechanism that drives the emotional stimulation into cryptocurrency investment behaviour.

Proposition 3 (P3)

Impulsive attitude is positively correlated with cryptocurrency investment behaviour.

4.4 Subjective Norms and Cryptocurrency Investment Behaviour

Subjective norms are the perceived social pressure that affects participation in behaviour (Ajzen, 1991). People often act according to what they think they're supposed to do because they feel validated, approved and expected by others who matter to them, like family members, influencers and online communities and groups. People are often influenced by the group's behaviour in order to minimise the uncertainty and gain social acceptance, as Cialdini and Goldstein (2004) stated. It is for

this reason that the continuous reinforcement and online validation of millennials from within the online investment communities may make cryptocurrency investment seem socially legitimate and behaviourally desirable to them.

Tjondro et al. (2023) highlight the impact of the closest social environment, which are peers and the most significant individuals, and market movements in the bitcoin market. The theory put forth by the author that the bitcoin market is significantly influenced by subjective norms was put to the test. His Under uncertain situations people tend to resort to collective behaviour as information cues about what to do, in the words of Banerjee (1992). Based on this, the present study proposes to view subjective norms as a direct influence that positively promotes cryptocurrency investment behaviour.

Proposition 4 (P4)

The subjective norms have a positive effect on cryptocurrency investment behaviour.

4.5. Perceived Behavioural Control and Cryptocurrency Investment Behaviour

According to the literature on technology adoption, people with higher levels of technological confidence will be more inclined to interact with digital financial systems (Venkatesh et al., 2003). In speculative cryptocurrency contexts, however, there could be instances of illusion of control, as investors in these markets may perceive behavioural control to the extent that they overestimate their market understanding and predictive powers. Odean (1998) stated that investors often have undue optimism in their financial forecasting activities when they are in an uncertain environment. Fast information flow and the rapid changes in the price of a cryptocurrency greatly magnifies such behavioral inclinations.

Barberis and Thaler (2003) also noted that illusion of control often leads to risky participation, speculative overconfidence, and excessive trading. The study conducted by Mahardhika and Zakiah (2020) found individuals' investing intentions are positively impacted by perceived behavioural control. Investors who feel they have a high level of expertise might not think of financial risk and may make hasty investment decisions in turbulent cryptocurrency markets.

Proposition 5 (P5)

The perceived behavioural control negatively affects cryptocurrency investment behaviour.

5. IMPLICATIONS OF THE STUDY

This study offers valuable theoretical, practical, and societal implications for understanding millennial cryptocurrency investment behaviour. The research combines explanatory elements of the Theory of Planned Behaviour with the constructs from behavioural finance to provide insight into the social and psychological and technologically mediated behaviour of cryptocurrency participation and not just a financial activity. The results illustrate the powerful impact of emotional dispositions, social influences, digital accessibility, and behavioural reinforcement features in current digital ecosystems on cryptocurrency investment behaviour.

5.1 Theoretical Implications

The current study is a major step toward broadening the scope of the cryptocurrency investment literature by applying the Theory of Planned Behaviour (TPB) to speculative financial contexts. TPB has traditionally been used extensively to explain the intent to engage in an intentional behavior in various contexts, including consumer decision making, technology adoption, health behaviour, and financial participation (Ajzen, 1991). Most conventional TPB applications, however, make the assumption of relative rationality and stability of behavioural evaluation, with attitudes, subjective

norms and perceived behavioural control all contributing to the formulation of behavioural intention. This is the reason that the present study attempts to extend the TPB by adding concepts from behavioural finance that are able to explain emotional involvement in the use of speculative digital markets. The use of an impulsive attitude as a key behavioural construct is a major theoretical advance as it expands the conceptualization of the attitudinal dimension of TPB in emotionally and volatile investment contexts. Rather than attitude being just an evaluative rational process, this study shows that investment in cryptocurrencies is often driven by excitement, fear of missing out (FOMO), emotional stimulation and speculative hope.

In previous cryptocurrency literature, a number of behavioral constructs, such as overconfidence, herd behavior, risk tolerance, and speculative momentum, have been explored separately (Barberis & Thaler, 2003). Such investigations give rich insights into behaviour, but often are ideologically fragmented and fail to embody an explanatory variance of psychological dispositions across social and technological factors. The present study overcomes this limitation by systematically combining behavioural finance lens with TPB to develop a more complete framework to explain cryptocurrency investment in digitally mediated environments. The study adds subjective norms and imitation behaviour into the conceptual framework to show that cryptocurrency participation is not only an economic activity, but also a socially legitimized behavioural phenomenon.

The addition of facilitating conditions further expands the theoretical knowledge of the connection between technological accessibility and speculative financial involvement. In general, technology adoption theories suggest that reducing the behavioural friction and making technology more convenient to use will help it be adopted (Venkatesh et al., 2003). In the context of the speculative market of cryptocurrencies, the current research shows that the creation of facilitating conditions not only makes it easier to be involved in the market but could also boost impulsive investment orientation because they decrease the availability of rational deliberation. The study also adds to the existing literature by adding subjective knowledge as a moderating variable in the process of behavioral execution in cryptocurrency participation. Previous financial literacy research tends to concentrate on quantitative knowledge and the measurable financial competence. The current set-up makes it clear, however, that self-perceived understanding and behavioural confidence may have greater behavioural impact in speculative digital environments than actual expertise. Even if investors have low objective financial knowledge, they can appear high subjective knowledge and exhibit higher behavioural confidence, lower uncertainty perception and higher speculative willingness. The study therefore contributes to the behavioural finance literature by highlighting the behavioural implications of perceived competence in a digitally mediated investment environment.

5.2 Practical Implications

The results of the present study have some significant practical implications for stakeholders of fintech platforms, financial educators, financial policy makers, and investor protection agencies within digital financial systems. The literature of behavioural economics shows that the architecture of digital devices has a strong impact on the processes of behavioural decision making (Thaler and Sunstein, 2008). Therefore, it is necessary for fintech platforms to include responsible behaviour protection measures that could help to limit participation driven by emotion.

Raising awareness about behaviour among the millennials could enhance financial rationalisation and minimise speculative vulnerability. Financial literacy initiatives also need to be aware of distinguishing between subjective confidence and objective financial knowledge as investors are often exposed to constant information online and overestimate their knowledge of cryptocurrencies. The results have important policy and regulatory implications as well. The cryptocurrency markets exist in

a digital space that is constantly changing, marked by high information asymmetry, speculative volatility and socially driven investment narratives. Conventional regulatory approaches tend to be narrowly legalistic, tax-related and institutional-based, rather than behavioural, which ignores the vulnerabilities of speculators in digital investing.

5.3 Societal Implications

In addition to theoretical and practical implications, the present study also has implications for society, as it highlights the long-term effects of speculative digital investment behavior in millennials. Speculative markets are often said to amplify emotional investing and diminish rational long-term financial planning (Kahneman, 2011). But excitement, FOMO and social influence can be effective in destroying disciplined saving patterns, adding to the risk of significant financial losses for those participating in cryptocurrencies. Those attitudes could have implications for the longer-term financial security and economic wellbeing of the next generation.

In this regard, the present study highlights the need to create sustainable digital financial ecosystems that can achieve a balance between technological innovation and behavioural responsibility, protecting the investor. The more people get involved in cryptocurrencies around the world, the more important it is to be aware of the behavioral weaknesses in speculative digital markets. In conclusion, the researchers suggest that cryptocurrency investment practice cannot be considered solely a financial phenomenon, but rather a socio-technological shift driven by digital culture, psychological reinforcement, social influence, and technological convenience.

6. CONCLUSION, LIMITATIONS AND FUTURE RESEARCH

6.1 Conclusion

Cryptocurrency markets are a unique type of financial markets that are subject to very different dynamics from traditional markets, often driven by economic fundamentals, institutional structures, and the behavior of investors. The current study aimed to conceptualize the relationship between cryptocurrency investment behaviour among millennials in the context of the Theory of Planned Behaviour and behavioural finance to formulate an explanation of the link between the two. The results of the conceptual analysis of the study suggest that the rational choice theories so far are insufficient to explain the investment behavior of cryptocurrencies. But the cryptocurrency environment is characterized by uncertainty, the speed of information flow, contagion of emotions, and enhanced behavioral stimulation through digital means, with a tendency for emotional responses and cognitive biases to prevail over rational assessment. This means that the involvement in cryptocurrencies becomes a socio-psychological phenomenon and a technologically mediated behavior.

The present study is among the most significant ones because it identified the impulsive attitude as one of the primary behavioural mechanisms that affect cryptocurrencies investment behaviour. The study consequently highlights the role played by impulsive attitude as a behavioral channel from emotional excitement and speculation to actual investment involvement. The results also show that the facilitating conditions have a great impact on the impulsive investment orientation. The overall technological accessibility, ease of onboarding systems, mobile trading apps, frictionless transactions and access to markets at any hour all help to lessen behavioural hurdles to financial participation. The finding of imitation behavior as a significant factor affecting impulsive attitude is another significant contribution of the study. In the study, it is shown that millennials often use the observable group behaviour as a signpost of information, which serves to reinforce herd behaviour and emotional orientation towards investments.

In the present study, the importance of subjective norms in cryptocurrency ecosystems is also emphasized. These and other factors combine to form an "imagined social pressure" that leads to behavioural involvement in social media. These and other influences all contribute to the sense of social pressure that would lead to behavioural involvement in social media. The investment in cryptocurrencies is becoming a synonym for innovation, modernity and technology, especially for the millennials. Thus, the results provide support for the argument that subjective norms are strong socio-psychological constructs which impact on cryptocurrency investment behavior. Another important element within the proposed conceptual framework was the perceived behavioural control. The study notes that millennials who are technologically adept, digitally confident and feel they know how to trade cryptocurrencies may be more inclined to engage in the cryptocurrency market.

In conclusion, the study shows that the investment behavior of cryptocurrencies is a behavioural ecosystem influenced by the combination of digital culture, psychological reinforcement, social influence, and technological accessibility. The cryptocurrency markets are not only economic spaces but socio-psychological spaces consisting of emotions, narratives, technology design, and social validation, which constantly interact and shape the behavioural engagement in the markets. The role of behavioural reinforcement mechanisms is becoming more critical as digital financial ecosystems grow, ensuring sustainable and responsible participation in cryptocurrencies.

6.2 Limitations

The current research has developed a theoretically linked structure to understand cryptocurrency investment behavior amongst the millennials, but there are some limitations that need to be recognized. The first being that the study is conceptual and does not entail empirical testing of the proposed relationships. The propositions formulated within the framework are not tested statistically, but are created through a theoretical synthesis and literature analysis. Therefore, the validity of the proposed relationships in terms of their strength, direction and importance cannot be empirically tested in the present study.

Second, the study largely concentrates on millennial investors, which restricts the generalizability of the results to the demographics. But, more and more people are taking part in cryptocurrencies from various age groups such as Generation Z, Generation X and the older investors. Thus, the results of the present conceptual framework might not necessarily be indicative of the behavioural dynamics of populations other than those of the millennials. The third is that macroeconomic and institutional factors affecting cryptocurrency inclusion are not explicitly included in the framework. The legal, economic and regulatory landscape is dynamic, with governments, tax regimes, financial institutions, monetary policies and regulatory uncertainty all playing a key part in investor's decision making in cryptocurrency markets

Fourth, the study does not offer cross-cultural analysis of the cryptocurrency markets, which is a global phenomenon. The financial socialization, the perception of risk, the behaviour of conformity and the participation in investment differs significantly from one culture to another. Because involvement in cryptocurrencies happens in interwoven digital areas all over the world, cultural difference can significantly affect the behavioral connections suggested inside the framework. Fifthly, the study doesn't look at behavioural changes in various market cycles. The cryptocurrency markets are marked by boom and bust cycles, speculative bubbles, regulatory volatility and changes, and varying investor sentiment. It is possible for behaviour to be very different when markets appreciate and markets decline, as measured by impulsive attitude, over confidence and perceived control. The current framework is static and conceptual in nature and fails to reflect the dynamic evolution of behaviour in different market conditions.

Finally, the study does not directly report objective financial literacy or measures of emotional intelligence or personality traits that could have a significant effect on the participation in cryptocurrencies. Speculative digital market behaviours may be influenced by cognitive ability, emotional regulation, financial knowledge and psychological strength all at the same time. With its limitations, the study has also made a valuable contribution to the theory, as it combines elements of the theory of the planned behaviour with the concepts of behavioural finance used to explain cryptocurrency investment behaviour in speculative digital financial ecosystems.

6.3 Future Research Directions

The scope and scale of the present research offer several opportunities for future research in cryptocurrency investment behaviour and behavioural digital finance. The first consideration for future research is to validate the proposed conceptual model using empirical and quantitative techniques, namely Structural Equation Modelling (SEM). SEM would enable researchers to statistically analyse direct, indirect and moderating relationships between facilitating conditions, imitation behaviour, impulsive attitude, subjective norms, perceived behavioural control, subjective knowledge, and cryptocurrency investment behaviour. Secondly, future investigations should investigate on a large scale with various socio-demographic groups. A comparison of these generations, millennials, generation Z, generation X, and older investors, might offer more detailed understanding of the generational differences that exist with respect to the use of cryptocurrencies. Thirdly, comparative analysis across countries should be performed to investigate the cultural and institutional factors influencing investment behavior in cryptocurrencies. It is possible to use the comparative study of developed and developing countries to establish the relationship between institutional and cultural conditions and speculative investment behaviour. Future research is too needed to explore the effects of platform gamification and digital interface design on cryptocurrency involvement. Fifth, longitudinal studies are needed to gain insights into the evolution of behavior over the crypto market cycles. Longitudinal research could shed light on the changes in impulsive attitude, overconfidence, subjective norms, and the perceived behavioural control over time as a result of fluctuations in the market.

In conclusion, future studies on cryptocurrency investment behavior should further investigate the multifaceted nature of the investment phenomenon, which results from behavioural psychology, digital culture, technological design, financial uncertainty, and socio-economic transformation. The behavioural underpinning of speculative participation is likely to be of growing significance for policy makers, financial institutions, researchers and investors as digital financial ecosystems continue to change rapidly.

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