



## RESEARCH NOTE OPEN ACCESS

# Cryptocurrency Research: A Conceptual Model for Future Research

Brett A. S. Martin<sup>1</sup>  | Polymeros Chrysochou<sup>2</sup>  | Carolyn A. Strong<sup>3</sup> | Adam J. Mills<sup>4</sup>

<sup>1</sup>Queensland University of Technology, Brisbane, Queensland, Australia | <sup>2</sup>American College of Greece, Aarhus University, Aarhus, Denmark | <sup>3</sup>Cardiff University, Cardiff, UK | <sup>4</sup>Loyola University New Orleans, New Orleans, Louisiana, USA

**Correspondence:** Brett A. S. Martin ([Brett.martin@qut.edu.au](mailto:Brett.martin@qut.edu.au))

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## ABSTRACT

This research note reviews research published in *Psychology & Marketing* in response to our call for papers for cryptocurrency research. Cryptocurrency is an area worth trillions of dollars and it offers a rich field of potential research topics for consumer psychology. Based on the articles by scholars published in *Psychology & Marketing*, we present a synthesis of the literature surrounding consumer behavior and cryptocurrency and propose a conceptual model to guide future research. This conceptual model organizes the literature by antecedents, process, and outcomes. In addition, we present a summary table of contributions from the research and offer a range of future research opportunities to be explored.

## 1 | Introduction

The cryptocurrency market has grown significantly, reaching a market capitalization of over \$3 trillion (Coingecko.com 2025). As cryptocurrencies such as Bitcoin gain mainstream recognition, their volatile nature and rapid adoption have attracted increasing attention from researchers in marketing (e.g., Martin et al. 2022, 2024; Nyhus et al. 2024). Further, from a researcher's perspective, cryptocurrency ("crypto") offers more than simply a different context for testing theory. While in the popular press and social media debates continue about crypto like Bitcoin being digital gold or replacing fiat currency, plus concerns about speculation (see Strong et al. 2024 for a discussion of crypto issues), crypto has only recently started gaining traction amongst consumer researchers. Thus, the opportunity exists for research to reveal insights into how consumers view and use crypto. To this end, we issued a call for papers on cryptocurrency research (we thank the Editor for his help and advice during this process and the scholars who submitted papers). This research note reviews cryptocurrency-related studies published in response to our recent call for papers for cryptocurrency research in *Psychology & Marketing* and

subsequent crypto-related papers that have been published. We focus on articles where cryptocurrency is central to the research, rather than articles that include crypto as a peripheral aspect. We acknowledge that cryptocurrency can be approached from different perspectives, such as an investment asset (our focus), a medium of exchange, or as a component of blockchain technology. We begin by introducing a conceptual model and present a table of contributions that are derived from the reviewed research (Section 2). The subsequent sections then address each component of this model. Specifically, antecedents (Section 3), mediators (Section 4), and outcomes (Section 5). Our final section (Section 6) presents limitations and opportunities that exist for future research.

## 2 | Conceptual Model

The reviewed research covers a range of theoretical frameworks, including congruity theory (Meyer et al. 2024), prospect theory (Anaza et al. 2024), regulatory mode theory (Mathmann et al. 2024), signaling theory (Shin et al. 2024), the Stimulus Organism Response framework (Sangari and Mashatan 2024),

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innovation resistance theory and trust transfer theory (Babu et al. 2024), and trait theory (Anaza et al. 2024). Figure 1 displays a conceptual model that organizes the literature by distinguishing between antecedents, process variables, potential moderators, and outcomes.

### 3 | Antecedents

#### 3.1 | Individual Differences

##### 3.1.1 | Personality Traits

Research on individual differences has explored the role of personality traits in cryptocurrency-related outcomes. To date, studies have examined the Big Five traits, which offer a broad framework for assessing personality. Anaza et al. (2024) explored how the Big Five traits influence Fear of Missing Out (FOMO) as a mediator of cryptocurrency purchase intention. Their findings suggest that FOMO increases purchase intention among agreeable and neurotic consumers, whereas conscientious and open-to-experience consumers exhibit lower purchase intention. Relatedly, Nyhus et al. (2024) examined variations in the Big Five traits across genders and their relations to cryptocurrency purchase intention. Future research could extend beyond the Big Five (see Table 1) to examine more specific

personality traits that may better capture the psychological drivers of cryptocurrency engagement. For example, research on light and dark personality traits could uncover deeper insights into investment motivations. While previous research has examined the antisocial tendencies associated with Dark Tetrad (Martin et al. 2022), the prosocial traits of Light Triad (e.g., humanism) could be explored. These traits could be relevant for cryptocurrencies that incorporate prosocial benefits, such as charitable donations.

##### 3.1.2 | Gender

Gender is another individual difference that offers insight into cryptocurrency investment behavior. Nyhus et al. (2024) found that males (vs. females) have a higher intention to invest in cryptocurrency, driven in part by greater financial self-efficacy. Additionally, males scored lower in agreeableness and higher in emotional stability on the Big Five personality traits. Interestingly, females exhibited higher levels of financial overconfidence, meaning they had greater self-perceived financial knowledge relative to their actual objective financial knowledge (e.g., knowledge about investments). Future research could further explore the relationship between gender and investment behavior, particularly in relation to risk-seeking and speculation. Prior research indicates that females tend to be more

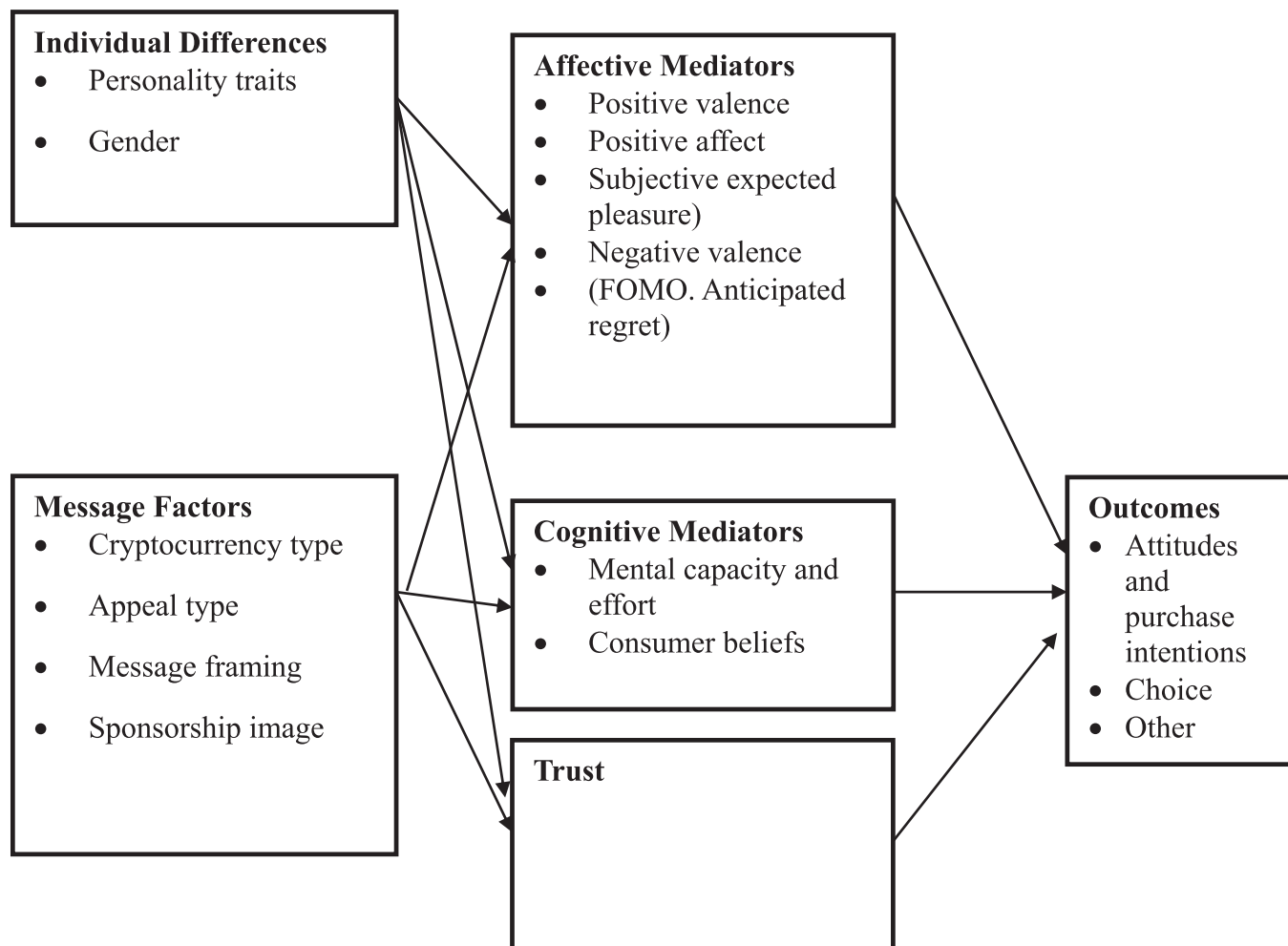


FIGURE 1 | Conceptual model.

**TABLE 1** | Research contributions and practical implications.

Author	Contributions	Practical implications
Anaza et al. (2024)	<ul style="list-style-type: none"> <li>Shows effects for Big Five personality traits and knowledge on cryptocurrency purchase intentions.</li> <li>Extends the Fear of Missing (FOMO) mediation insight of Martin et al. (2022)</li> </ul>	<ul style="list-style-type: none"> <li>Marketers should consider personality traits in cryptocurrency strategies.</li> <li>FOMO influences investment decisions for different personality types.</li> <li>Knowledge of cryptocurrency affects consumer behavior and purchase intentions.</li> </ul>
Babu et al. (2024)	<ul style="list-style-type: none"> <li>Sponsorship as a trust-building antecedent.</li> <li>Psychological barriers in fintech product adoption.</li> <li>Integrates Trust Transfer theory and Innovation Resistance theory.</li> </ul>	<ul style="list-style-type: none"> <li>Sponsorship can enhance trust in crypto assets.</li> <li>Reduces psychological resistance towards adopting crypto assets.</li> <li>Encourages crypto asset organizations to use sponsorships.</li> </ul>
Friederich et al. (2024)	<ul style="list-style-type: none"> <li>The research explores FOMO appeals and crypto investment intentions.</li> <li>Trait impulsivity as a moderating factor in FOMO effects.</li> <li>Identifies potential FOMO-reducing communication strategies.</li> </ul>	<ul style="list-style-type: none"> <li>Policymaker insights for consumers and FOMO appeals.</li> <li>Nonprofit agencies can develop strategies against FOMO influences.</li> <li>For-profit organizations can improve business models using findings.</li> </ul>
Mathmann et al. (2024)	<ul style="list-style-type: none"> <li>Studies the effect of assessment (vs. locomotion) language in crypto social media posts on engagement.</li> <li>Examines over 194,000 social media posts.</li> <li>Presents a mechanism of volatility, cognitive engagement and positive affect.</li> </ul>	<ul style="list-style-type: none"> <li>Assessment language boosts engagement with crypto asset posts.</li> <li>Understanding consumer motivation aids effective marketing strategies.</li> </ul>
Meyer et al. (2024)	<ul style="list-style-type: none"> <li>Provide empirical guidance for consumer preferences for sustainable investments.</li> <li>Non-FOMO appeals are better for green (vs. traditional) crypto. FOMO appeals work better for traditional crypto.</li> <li>Study investment intention and investment choice.</li> </ul>	<ul style="list-style-type: none"> <li>Green crypto coins should avoid FOMO appeals in promoting green investments.</li> <li>Message congruence is crucial for effective influencer marketing.</li> </ul>
Nyhus et al. (2024)	<ul style="list-style-type: none"> <li>Effects of gender on crypto investment decisions.</li> <li>Studies financial overconfidence and Big Five traits as mediators with effects for agreeableness and conscientiousness.</li> </ul>	<ul style="list-style-type: none"> <li>Identifies consumer segments prone to invest in crypto.</li> <li>Highlights gender differences in crypto investment intentions.</li> <li>Encourages understanding of personality traits influencing investment behavior.</li> </ul>
Sangari and Mashatan (2024)	<ul style="list-style-type: none"> <li>Investigates consumer rejection behavior towards crypto payment.</li> <li>Stimulus Organism Response perspective.</li> </ul>	<ul style="list-style-type: none"> <li>Identifying barriers can inform regulatory frameworks for cryptocurrencies.</li> <li>Insights can enhance marketing approaches for crypto-payment adoption.</li> </ul>
Shin et al. (2024)	<ul style="list-style-type: none"> <li>Identifies informational cues for initial coin offering (ICO) projects.</li> <li>Uses signaling theory to analyze ICO dynamics.</li> </ul>	<ul style="list-style-type: none"> <li>Insights for ICO promotion.</li> <li>Highlights importance of white papers in reducing information asymmetry among stakeholders.</li> </ul>

risk-averse in investment decisions (Teodósio et al. 2021; Byrnes et al. 1999) and adopt more conservative investment strategies than males (Eckel and Füllbrunn 2015). Additionally, examining gender identity and cryptocurrency investment may unearth

important nuances in motivation, barriers, and risk perceptions. For example, males who strongly identify with traditional masculine roles (e.g., Martin and Gnoth 2009) may exhibit more assertive and risk-seeking investment behaviors. Next, we

present message factors. Messages in this context refers to information or content that is communicated to consumers usually with the intention of persuading them. For example, message content may relate to information about the type of cryptocurrency being promoted.

## 3.2 | Message Factors

### 3.2.1 | Cryptocurrency Type

Meyer et al. (2024) investigate two primary **types of cryptocurrencies**—normal and green crypto coins—and their implications for investment behavior. Normal crypto coins, widely recognized and traded, are noted for their substantial environmental drawbacks due to high energy consumption, posing challenges for sustainable investment. In contrast, green crypto coins are designed to be environmentally friendly, reducing the negative impacts of traditional crypto mining and aligning with socially responsible investment strategies (De Vries 2023). The study examines the influence of FOMO (fear-of-missing-out) appeals, finding that such appeals decrease investments in green crypto coins while increasing investments in normal crypto coins. This effect is mediated by factors such as message congruence and emotional value perceptions, which play a crucial role in shaping investor attitudes and behaviors toward these cryptocurrency types.

### 3.2.2 | Appeal Type and Message Framing

The next two variables relate to message variables—message appeal type and message framing. In the crypto literature research to date, appeal research has studied Fear of Missing Out versus non-FOMO appeals (Friederich et al. 2024; Meyer et al. 2024). This is a useful exploratory step given the range of appeals that can be considered (e.g., informational vs. emotional; value-expressive vs. utilitarian appeals; open vs. closed conclusions). For example, Friederich et al. (2024) also included testing an appeal featuring a real brand (Google). They showed across their studies that FOMO appeals generated more favorable investment intentions, behavior and interest than non-FOMO appeals.

Message framing relates to how objectively the same information is presented in alternative ways to consumers. For instance, a meat food product presented as “95% fat-free” (positive frame) versus presenting the same product as “5% fat” (negative frame, Martin and Lawson 1998). Although different operationalizations for framing exist (e.g., positive frames can be framed as achieving a gain or avoiding a loss, Levin et al. 1998), recent crypto research has drawn on regulatory mode theory to study how consumers respond to messages about crypto. Mathmann et al. (2024) studied the effect of assessment versus locomotion language frames on whether consumers like social media posts about crypto assets. Assessment is where the consumer is focused on making the right decision, whereas locomotion involves acting in a direct manner without undue delay (Kruglanski et al. 2000). Mathmann et al. (2024) found that assessment frames are more effective for creating consumer engagement with crypto messages.

### 3.2.3 | Sponsorship Image

Babu et al. (2024) examine the role of **sponsorship** in fostering consumer trust and reducing barriers to adopting crypto-assets. This study identifies the sponsorship image as a critical factor in enhancing trust and mitigating resistance toward cryptocurrencies and crypto-assets. A positive sponsorship image can increase favorability, interest, and ultimately consumer willingness to adopt these innovative technologies. Drawing on trust transfer theory, the research highlights that trust can transfer from a sponsored event to the sponsor's product, facilitated by the positive associations consumers form with the sponsorship. Additionally, the study emphasizes that consumers require comprehensive information to make informed decisions about high-involvement products like crypto-assets. This underscores the importance of pairing a positive sponsorship image with educational efforts to build both trust and understanding in crypto-assets.

## 4 | Mediators

### 4.1 | Affective Mediators

Both affective and cognitive mediators have been explored in cryptocurrency research. For affective mediators, both positive and negative affective mediators have been highlighted as psychological mechanisms. Regarding positive affective mediators, Mathmann et al. (2024) in a study of the liking of social media posts, showed how positive affect was part of a sequential mediation of social media post framing effects on intention. Similarly, Friederich et al. (2024) found that subjective expected pleasure partially mediated the effect of FOMO on crypto investment intention. Rather than a generic positive state (positive affect), subjective expected pleasure involves a time component with the anticipation of a future positive state.

However, the most prominent affective mediator in the reviewed research has a negative valence: **Fear of Missing Out** (FOMO). FOMO relates to a fear that others are experiencing a positive experience that you are missing out on (Przybylski et al. 2013). For cryptocurrency FOMO, this discrete emotion relates to FOMO on cryptocurrency investing rewards that other people are experiencing (Chrysochou et al. 2024, Martin et al. 2022). In the reviewed research, Anaza et al. (2024) found that the effect of Big Five traits on cryptocurrency judgments was mediated by FOMO on not buying cryptocurrencies. Their work aligned with earlier research that showed the effect of personality traits on crypto purchase intention being mediated by crypto FOMO (Martin et al. 2022). Other reviewed research also studied FOMO (i.e., FOMO on investing Friederich et al. 2024; Meyer et al. 2024). Although the literature to date has emphasized FOMO, psychological research on consumers and cryptocurrency is in its nascent stages. Currently, FOMO has been studied as an insightful variable. However, as the scope of research constructs widens in future research (e.g., more cognitive mediators and affective mediators are explored) FOMO may become one of a range of variables to consider for research. Another discrete emotion shown to have an effect in cryptocurrency research is **anticipated regret** (AR). Friederich et al. (2024) showed how AR partially mediated the effect of

FOMO on crypto investment intention. Thus, cryptocurrency research has examined affective mediators as affective states (FOMO, positive affect) or with a temporal aspect of an anticipated future affective state (expected pleasure, anticipated regret).

## 4.2 | Cognitive Mediators

### 4.2.1 | Mental Capacity and Effort

Meyer et al. (2024) identifies **cognitive load** as a mediator between FOMO appeals and investment intention. Cognitive load is measured using neurobiological methods, through the power spectral density of theta waves, which serves as a proxy measure. In a lab experiment, the authors demonstrated that participants exhibited greater cognitive effort when processing information about normal crypto coins compared to green crypto coins, indicating that the type of investment influences cognitive load. FOMO appeals were found to intensify cognitive processing, increasing cognitive load as individuals assess investment intentions and associated risks. However, the study highlights a nonlinear relationship, where excessive cognitive activity can reduce the impulsive behaviors typically driven by FOMO, illustrating the dual role of cognitive load in decision-making.

A second cognitive mediator, **cognitive engagement**, is explored by Mathmann et al. (2024). Cognitive engagement is defined as a state of sustained attention and mental absorption in an activity (Higgins 2006). Their work posits that cognitive engagement mediates the relationship between regulatory mode (assessment vs. locomotion) and liking intentions. In the two experimental studies, their results reveal that assessment-oriented language enhances cognitive engagement, resulting in more favorable attitudes toward the content and increasing consumers' intentions to like social media posts about crypto-assets. Further, the research found that assessment-oriented message frames boost cognitive engagement and also diminish perceptions of investment volatility, further reinforcing cognitive engagement and its downstream effects on message-liking intentions.

### 4.2.2 | Consumer Beliefs

The other group of cognitive mediators relate to consumers' beliefs about external stimuli (i.e., perceived volatility and congruence). **Volatility** refers to the extent to which consumers perceive uncertainty and unpredictability in the value of crypto assets, often marked by rapid price fluctuations. Sangari and Mashatan (2024) highlight how high perceived volatility undermines consumer confidence in cryptocurrencies as a stable payment method, leading to psychological barriers such as loss aversion and confusion. Similarly, Mathmann et al. (2024) emphasize that perceived volatility influences consumer engagement by shaping cognitive responses. They show that messages framed to reduce perceptions of volatility can enhance engagement by mitigating perceived risk. Together, these studies underscore the multifaceted impact of volatility, demonstrating its role in reinforcing resistance to crypto-payment through psychological and functional barriers and shaping cognitive engagement via framing and regulatory mode theories.

Another critical factor in cryptocurrency communications is **message congruence**, which plays a pivotal role in shaping investment intentions (Meyer et al. 2024). Congruence is defined as the alignment between presented information and audience beliefs or expectations. Meyer et al. (2024) reveal that congruent messages are more likely to resonate with consumers, enhancing recall, preference, and acceptance. The study also highlights the contrasting effects of FOMO appeals on normal and green cryptocurrencies. While FOMO appeals align well with the immediate action ethos of normal crypto coins, they conflict with the long-term investment perception of green crypto coins, reducing investment intentions for the latter. Message congruence mediates the relationship between crypto coin type and investment intentions, with higher congruence amplifying the likelihood of investing.

## 4.3 | Trust

Trust is a mediator in cryptocurrency adoption bridging the gap between consumer uncertainty and intention to engage with a potentially high-risk digital asset (Mathmann et al. 2024). Studies highlight that trust can alleviate resistance to innovation through perceptions of increased transparency (Sangari and Mashatan 2024; Mazzù et al. 2023) and, when available, through credible external associations and endorsements (Babu et al. 2024). Trust also appears to be influenced by multiple antecedents (e.g., sponsorship image and consumer characteristics). Consequently, future cryptocurrency conceptual research should consider including trust-building mechanisms as theoretical components in their predictions. Future research should explore whether trust or trusting beliefs (Martin and Strong 2016) is important in crypto contexts because of the absence of tangible assets backing digital currency and traditional institutional safeguards.

## 5 | Outcomes

### 5.1 | Attitudes and Intentions

Methodologically, crypto research has evolved from simple correlational studies to experimental designs. Meyer et al. (2024) employed discrete choice experiments and neuro-physiological measures of cognitive load, while Mathmann et al. (2024) combined social media analysis with experiments. This methodological advancement has resulted in more robust testing of causal relationships. However, for dependent variables, research has tended to study cryptocurrency purchase intention (Anaza et al. 2024; Friederich et al. 2024; Meyer et al. 2024). A different approach was Nyhus et al. (2024) who measured cryptocurrency investment intentions with a binary choice variable (cryptocurrency as a viable investment: yes or no).

Actual behavioral outcomes (e.g., crypto purchases of meaningful amounts) remain underexplored compared to attitudes and intentions.

### 5.2 | Choice and Behavioral Outcomes

Meyer et al. (2024) conducted a notable study examining **consumer choice**. In their final study (Study 4), they employed a



discrete choice experiment to investigate decision-making in the context of sustainable cryptocurrency investments. Their findings indicate that governance and regulatory issues exert the greatest influence on consumer investment decisions. Additionally, consumers derive higher utility from “green coins” when these are presented in a non-FOMO (fear of missing out) condition compared to a FOMO condition. A behavioral outcome by Friederich et al. (study 1b 2024) gave participants the opportunity to invest money in relation to the 2 Euro payment they received for participating in the research. FOMO appeals resulted in more money invested. A further study (study 1c) traced website clicks as indicative of consumer interest.

### 5.3 | Other Attitudinal Measures

Research has also addressed other dependent variables. For example, Mathmann et al. (2024) examined how regulatory mode impacts *consumer engagement* with cryptocurrency-related content on social media. Across two studies, they measured engagement using Facebook post data, focusing on the number of likes as the primary dependent variable. They also conducted two online experimental studies where they assessed message-liking intentions for Facebook mock-up posts, using a 3-item scale adapted from Martin et al. (2022).

Babu et al. (2024) investigated *psychological barriers* to cryptocurrency adoption as an outcome of trust in crypto-assets. They conceptualized psychological barriers as a multi-dimensional construct comprising economic, image, normative, personal, social, and usage barriers, referencing Joachim et al. (2018). However, their measures diverge from Joachim et al.'s (2018) original conceptualization, which categorizes usage, value, and risk as functional barriers, and tradition and image as psychological barriers. This conceptualization was followed by Sangari and Mashatan (2024) also explored psychological and functional barriers, adhering to Joachim et al.'s (2018) framework. Finally, Sangari and Mashatan (2024) measured *consumer rejection* of crypto-based payment systems using a 7-item scale adapted from Leong et al. (2020) and Pal et al. (2021).

## 6 | Limitations and Future Research Directions

### 6.1 | Limitations

Limitations of the published research include a reliance on self-reported measures, a lack of behavioral data and limited generalizability due to homogeneous samples. Consequently, future research should examine longitudinal transaction data and recruit more heterogeneous samples to enhance generalizability. Future work could also link self-reports to verifiable on-chain records to test the durability of psychological drivers and guide policy and practice. A further limitation is the emphasis on Western samples. Given global variations in the regulatory environments for cryptocurrency, consumer trust, and financial infrastructure, future research should explore other markets to more fully represent how consumers in different countries engage in crypto adoption.

### 6.2 | Expanding Personality and Gender Research

While existing research has explored general traits such as the Big Five (Anaza et al. 2024; Nyhus et al. 2024), future studies could examine domain-specific traits like proactive personality (Din et al. 2023) which could shed light on how these traits influence factors like investment likelihood and consumer resilience to market volatility. Research can explore how adherence to traditional gender roles influences risk-seeking behaviors in crypto markets (Martin and Gnoth 2009). Research investigating the influence of gender differences in attitudes and behaviors related to cryptocurrency may expand beyond the immediately tangible concepts of risk and investments and into broader sociocultural arenas of financial literacy (Bannier et al. 2019), investment-related moral reasoning (Grym et al. 2024), or social equality borne of increasingly decentralized financial systems (Henshaw 2023). Another area of future research relates to message stimuli - specifically, message framing and storytelling dynamics.

### 6.3 | Message Framing and Storytelling Dynamics

Research on message framing has demonstrated its relevance in crypto contexts in shaping consumer perceptions (Mathmann et al. 2024). Future research could examine framing effects for different types of frames (Levin et al. 1998) on perceptions of investments. Other framing types include a compensation message frame (i.e., as an investment opportunity vs. as a cash spending equivalent), or the framing the compensation message as a nominal cryptocurrency value versus a real dollar value (Nazifi et al. 2021). Given that storytelling modes (i.e., a factual orientation vs. an emotional orientation) can influence crypto investment intentions (Boukis 2023), future research could examine how loss-framed factual storytelling versus gain-framed emotional storytelling influences risk perception and trust. Particularly in online communities, narrative storytelling can leverage the social familiarity of folklore and mythological reference to counterbalance the uncertainty and volatility that characterizes crypto markets (Yogarajah 2022). Further, the Narrative Policy Framework may provide a theoretical foundation for examining how stories can shape regulatory decisions, policy dissemination and the influence of media on public perceptions of cryptocurrencies and investing (Kanol 2022).

### 6.4 | Trust and Resistance Mechanisms

Trust is an important mediator in reducing psychological and functional barriers to crypto adoption (Babu et al. 2024; Sangari and Mashatan 2024). Further research is needed to distinguish between cognitive trust (based on rational evaluations) and affective trust (emotional connections) and explore how trust evolves over time through repeated consumer interactions. Evidence suggests that consumer understanding, cultural acceptance and governmental regulation have significant influences on consumer trust of cryptocurrency by way of increased transparency and familiarity (Arli et al. 2021;

Jalan et al. 2023). Additionally, the role of external trust-shaping associations like sponsorships or endorsements in overcoming trust gaps, as identified by Babu et al. (2024), could be extended to study trust-building strategies across diverse consumer segments. Given the emerging interest in ethics research on blockchain activities (Tan and Salo 2023), three areas with ethical components—rising consumer fraud and speculative promotion, biased financial information, and the environmental impact of cryptocurrencies—are also worthy of study. While researchers should recognize the differences between speculative traders versus long-term holders (Mantere et al. 2024), future research could study an ethical-risk pathway that treats skepticism of the veracity of crypto messaging and potential environmental harm as antecedents of consumer resistance to persuasion or as moderators of trust-based effects. Integrating these constructs would enhance future research with calls for socially responsible crypto innovation and regulation. Indeed, while we recognize the role of FOMO as a mediator, further analysis of potential mediators related to trust, perceived risk, anticipated regret, and moral reasoning would be useful to the field.

## 6.5 | Behavioral Outcomes and Emerging Variables

While studies have primarily focused on purchase intentions (Anaza et al. 2024; Meyer et al. 2024), there remains a need to investigate long-term behaviors such as portfolio diversification and resilience to market fluctuations (Ma et al. 2020; Fang et al. 2020). Future work could also explore how external factors like regulatory changes, governance assurances, and macroeconomic shifts influence behavioral outcomes in cryptocurrency investments (Nyhus et al. 2024). Additionally, incorporating behavioral economics concepts such as framing of sunk costs or mental accounting could provide new insights into investment persistence or withdrawal decisions (Ahsan and Gupta 2024; Kubińska et al. 2023). Additional variables that are worthy of study include feedback loops, time-based evolution, and contextual factors like market volatility or regulatory shifts. These variables are relevant to fast-paced, high-risk cryptocurrency markets. Further, drawing on disciplines such as economics, sociology, law, and information systems could offer useful insights. Regarding outcomes, current research tends to focus on attitudes and intentions. There is relatively little discussion of actual behavior or long-term financial outcomes. This is a notable gap. Future research that is longitudinal and behaviorally focused would benefit the practical relevance of crypto research.

## 6.6 | Consumer Education and Crypto Literacy

Finally, as crypto adoption increases, consumer education emerges as a critical area for exploration. Crypto markets often involve high technical complexity and risk, which, when combined with social stigmatization as being for younger and more tech-savvy investors (Srivastava et al. 2024) can exacerbate broader financial illiteracy and consumer hesitancy. Future studies could examine the design and influence of targeted education strategies designed to reduce misconceptions surrounding cryptocurrency and related technologies like blockchain (Mashatan et al. 2022; Jonker 2019). Targeted education

strategies may be worthy of investigation across novice and experienced investor groups, as evidence suggests that understanding of crypto assets is often associated with specific crypto-related financial literacy rather than general financial knowledge (Fujiki 2020). This highlights a potential opportunity for future research to explore how crypto literacy could promote more equitable access to financial investing across diverse societal groups. Research related to crypto education for consumers is particularly important to help consumers mitigate risk when investing in crypto and encouraging more informed adoption decisions by consumers. In conclusion, cryptocurrency is a dynamic area of real world interest and investment. We thank the researchers who responded to our call for papers on crypto research and hope that the model and ideas we presented in this article encourage future research in this area.

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## Data Availability Statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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