The role of stable coins in mitigating volatility in cryptocurrency markets

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Abstract

This study aims to analyze the link between Perceived Volatility Reduction (PVR), Risk Perception, Stablecoin Usage Frequency, Market Confidence, and Stablecoin Adoption (SA). The primary goal is to determine if and to what degree these variables impact stablecoin adoption. We created a questionnaire to gather information from 198 Malaysians. To analyze the research model and test the hypotheses, the Structural Equation Modeling-Partial Least Squares (SEM-PLS) method was utilized. According to the findings, there is a strong and positive association between Perceived Volatility Reduction (PVR) and Stablecoin Adoption (SA). Market players are more likely to adopt stablecoins if they perceive them as useful instruments for mitigating the severe price volatility inherent in traditional cryptocurrencies. This finding emphasizes the importance of risk perception and market stability in driving market behavior. Trust in stablecoin systems, transparency, and regulatory, compliance influenced PVR and SA. The study’s findings underscore the significance of perceived volatility reduction (PVR) in driving stablecoin adoption (SA), highlighting the importance of risk perception and market stability. Trust in stablecoin systems, transparency, and regulatory compliance emerge as crucial factors influencing PVR and SA. These insights offer valuable guidance for investors navigating the cryptocurrency market, governments managing stablecoin supply, and scholars studying trust dynamics in the cryptocurrency ecosystem.

1. Introduction

In the exciting and frequently tumultuous global of cryptocurrencies, one concept has emerged as a beacon of stability, which is stablecoins (Wang, Ma, & Wu, 2020). These virtual assets have taken the cryptocurrency market by storm, presenting a respite from the wild rate swings that have emerged as synonymous with cryptocurrencies (Baur, Hong, & Lee, 2018). In this tale, we are able to embark on a journey to discover the captivating role of stablecoins in mitigating volatility in cryptocurrency markets. Cryptocurrencies, led with the aid of Bitcoin, initially captivated the arena with guarantees of decentralized monetary systems, instant transactions, and astronomical returns (Berentsen & Schär, 2019). However, their excessive charge volatility quickly became apparent, posing a huge barrier to mainstream adoption and institutional investment. This volatility has deterred many from embracing cryptocurrencies as a reliable keep of price or way of trade, and it
has created a glaring research gap—a way to make cryptocurrencies more solid and less liable to price fluctuations (Saleh, 2019).

Stablecoins, a digital asset class, aim to maintain a consistent price, typically linked to traditional assets such as fiat currencies or commodities. These coins provide a novel technique for the crypto market's volatility problem, bridging the gap between the decentralized nature of cryptocurrencies and the stability of conventional financial structures (Fiedler & Ante, 2023). One of the most important roles of stablecoins is to act as a secure haven within the stormy seas of cryptocurrency buying and selling. During periods of extreme volatility, investors and traders can swiftly convert their belongings into stablecoins, preserving their price and lowering their exposure to charge fluctuations. This potential to provide stability in times of disaster has made stablecoins a crucial tool inside the cryptocurrency ecosystem, allowing users to navigate turbulent markets with self-assurance (Chohan, 2019). Moreover, stablecoins facilitate seamless transactions in the crypto space, overcoming one of the traditional challenges of the using cryptocurrencies for regular payments.

Users do not want to worry about their digital assets dropping sizable price between the time they initiate a transaction and its confirmation (Cao, Dai, Kou, Li, & Yang, 2021). This vital feature has paved the way for the adoption of cryptocurrencies in diverse industries, including e-trade, remittances, and international exchange. The effect of stablecoins on the crypto marketplace is profound, and studies in this location have grown exponentially. Scholars and experts are constantly exploring new avenues for reinforcing stablecoin designs, examining their felony and regulatory implications, and investigating the systemic dangers they might pose. In the field of cryptocurrency research, there is a significant gap in understanding user views and adoption variables connected to stablecoins as a way of mitigating volatility in cryptocurrency markets. While there is a growing body of material on stablecoins and their usefulness in reducing market volatility, little is known about how consumers view stablecoins in reaction to this volatility (Ante, Fiedler, & Strehle, 2021).

Addressing this gap would provide a deeper understanding of user behavior, decision-making processes, adoption drivers, perceived benefits, drawbacks, and the long-term effects of stablecoin adoption, significantly contributing to our understanding of cryptocurrency market dynamics and participant strategies (Jarno & Kołodziejeżyk, 2021). Significant price volatility has long plagued the cryptocurrency market, leading by Bitcoin, deterring mainstream adoption and institutional investment. This volatility creates uncertainty and hinders cryptocurrencies' ability to serve as reliable stores of value or mediums of exchange. Despite their promises of decentralized finance and instant transactions, cryptocurrencies' unstable nature remains a barrier to broader acceptance. The objective of this study is to investigate the role of stablecoins in mitigating volatility within cryptocurrency markets. Stablecoins, designed to maintain a stable value and often pegged to traditional assets, offer a potential solution to the volatility problem. This research aims to deepen our understanding of stablecoin perception and utilization in response to market volatility by examining user perspectives and adoption factors related to stablecoins.

This research aims to investigate user views and adoption variables associated with stablecoins as a means of mitigating volatility in cryptocurrency markets. By analyzing user behavior, decision-making processes, adoption drivers, perceived benefits, drawbacks, and long-term effects of stablecoin adoption, this study seeks to contribute significantly to our understanding of cryptocurrency market dynamics and participant strategies. This research will address the existing gap in the literature by providing insights into the role of stablecoins in promoting stability and facilitating transactions within the cryptocurrency ecosystem. The remainder of the paper is structured as follows: The next section gives theoretical context and the related literature. Section 3 presents the research model and its hypotheses. Section 4 is the research discussion. Section 5 discusses the theoretical and practical implications, as well as the study's limitations. Finally, the conclusion.

2. Literature Review

2.1. Perceived Volatility Reduction and Stablecoin Adoption

The courtship between perceived volatility discounts and stablecoin adoption is a crucial element in the evolving landscape of cryptocurrency markets. This nexus paperwork is the cornerstone of investors' selections and market dynamics, warranting an in-depth exploration. Perceived Volatility Reduction (PVR) is a fundamental idea in cryptocurrency markets, reflecting traders' beliefs regarding the capability of stablecoins to mitigate rate fluctuations (Kimmerl, 2020). Different factors, including the stablecoin's underlying mechanisms, its track record, and market sentiment, motivate PVR, a perceptual construct. It represents buyers' assessment of whether stablecoins successfully stabilize the unstable cryptocurrency market (Kahya, Krishnamachari, & Yun, 2022). Stablecoin Adoption (SA), on the other hand, relates to the volume to which individuals or entities have interaction with stablecoins in their cryptocurrency activities. It consists of the usage of stablecoins for transactions, investments, or as a shop for fees. Elements like accessibility, trust, and familiarity motivate adoption prices, which can vary widely (Hsu, Au, & Shieh, 2022). The relationship between PVR and SA is inherently symbiotic. When buyers perceive stablecoins as powerful equipment for decreasing volatility, they are much more likely to take them. This notion can be formed by way of the stability mechanisms employed via unique stablecoins, which include being pegged to a reserve asset like the US greenback, algorithmic balance mechanisms, or collateralized backing (Kahya et al., 2022). Research has shown that a high PVR can act as a catalyst for SA. When cryptocurrency market participants witness intense

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fee fluctuations, they may be searching for safe haven in stablecoins to mitigate capability losses (Au, Hsu, Shieh, & Yue, 2023). Stablecoins offer a way to exit risky positions without transferring absolutely out of the cryptocurrency ecosystem, which aligns with buyers’ chance-averse inclinations. Moreover, as the cryptocurrency marketplace matures, regulatory authorities provide extra clarity and stability to the arena. This regulatory oversight can beautify PVR, as traders perceive stablecoins as an extra steady choice in regulated surroundings. Consequently, SA might also ascend in tandem with stepped-forward regulatory frameworks. However, the connection between PVR and SA is not unidirectional. SA can, in turn, affect PVR by increasing the liquidity and marketplace intensity of stablecoins. The availability of stablecoins as trading pairs can enhance their utility and reduce transaction prices, making them even more attractive for the duration of marketplace turbulence (Ante, Fiedler, Willruth, & Steinmetz, 2023). Therefore, it can propose:

H: Perceived Volatility Reduction significantly impacts Stablecoin Adoption.

2.2. Risk Perception and Stablecoin Adoption

The courtship between Risk Perception (RP) and Stablecoin Adoption (SA) is a crucial measurement in the realm of cryptocurrency markets. It illuminates the pivotal role that traders’ perceptions of danger play in shaping their adoption selections within the context of stablecoins. Risk Perception (RP) in cryptocurrency markets refers to how investors verify the level of hazard related to various cryptocurrencies and associated instruments, together with stablecoins. Numerous factors stimulated RP, including the historical volatility of cryptocurrencies, the regulatory environment, and the stability mechanisms supporting stablecoins (Mukhamedov, 2022). Stablecoin Adoption (SA) encompasses the volume to which people and entities incorporate stablecoins into their cryptocurrency activities (Ferreira, 2021). This adoption can take place in diverse paperwork, from using stablecoins for regular transactions to utilising them as a shop of price or as a means of moving fees throughout borders. The relationship between RP and SA is problematic and dynamic. When traders perceive higher levels of chance in conventional cryptocurrencies like Bitcoin or Ethereum due to their price volatility, they will flip to stablecoins as a more secure haven inside the risky cryptocurrency atmosphere. Due to their relative fee balance, traders perceive stablecoins, usually pegged to strong assests like fiat currencies or commodities, as less risky (Mukhamedov, 2022).

Furthermore, regulatory trends have a significant impact on RP and SA. As regulatory clarity increases, and stablecoins observe those policies, RP decreases, making stablecoins more attractive to threat-averse buyers. They see stablecoins as a bridge between the unregulated wild west of cryptocurrencies and the closely regulated traditional monetary machine. It’s important to say that the connection between RP and SA is not a one-way road. SA can, in turn, impact RP. As the adoption of stablecoins grows and they become more incorporated into the cryptocurrency environment, buyers may perceive them as less unstable due to their increasing liquidity and acceptance inside the market. Moreover, the stability mechanisms of specific stablecoins play a pivotal role in influencing RP. Transparency about how these mechanisms work and the level of collateralization or algorithmic manipulation can impact how traders understand the risk related to this cash (Sood et al., 2023). Therefore, it can propose:

H: Risk Perception significantly impacts Stablecoin Adoption.

2.3. Stablecoin Usage Frequency and Stablecoin Adoption

The relationship between Stablecoin Usage (SU) and Stablecoin Adoption (SA) in the context of cryptocurrency markets is dynamic and symbiotic. It displays how the adoption of stablecoins affects the volume with which they’re actively used within the cryptocurrency ecosystem. Stablecoin Usage (SU) refers to the frequency and volume with which people and entities rent stablecoins for their cryptocurrency-related activities. This can consist of the use of stablecoins for regular transactions, as a medium of exchange, or as a shop for fees. It also encompasses their use in trading, investment techniques, and cross-border remittances (Hsu et al., 2022). Stablecoin Adoption (SA), alternatively, pertains to the degree to which users and investors include stablecoins as a part of their cryptocurrency portfolio. It encompasses the decision to incorporate stablecoins into one's cryptocurrency holdings and sports. The relationship between SU and SA is reciprocal and reinforcing. As more customers undertake stablecoins, the overall liquidity and application of stablecoins in the cryptocurrency atmosphere grow. This, in turn, encourages more customers to rent stablecoins for their cryptocurrency transactions and investments. For instance, individuals and companies that have followed stablecoins may additionally discover them beneficial for hedging in opposition to the volatility of other cryptocurrencies. They may also use stablecoins as a brief safe haven for the duration of market turbulence, thereby growing their usage (Bojaj et al., 2022). Furthermore, the availability of stablecoins as trading pairs on cryptocurrency exchanges can facilitate their use in trading activities. Furthermore, the enlargement of stablecoin-primarily based economic offerings, which include decentralized finance (DeFi) systems and lending protocols, has contributed to multiplied SU. Users are drawn to those systems due to the stability and predictability provided by stablecoins.

In terms of influencing factors, the layout and mechanisms of stablecoins play a sizable role in shaping the relationship among SU and SA. Users are much more likely to adopt and use stablecoins that they understand as well-designed, obvious, and reliably stable in price. Regulatory developments can also affect this relationship. As stablecoins advantage regulatory approval and compliance, customers can also feel more
steady in adopting and using them, which can, in turn, drive extra adoption and utilization (Bains, Ismail, Meo, & Sugimoto, 2022). Therefore, it can propose:

H. Stablecoin Usage Frequency significantly impacts Stablecoin Adoption.

2.4. Market Confidence and Stablecoin Adoption

The relationship between Market Confidence (MC) and Stablecoin Adoption (SA) is an essential dynamic in the cryptocurrency environment, reflecting the profound impact on the acceptance and sentiment towards the adoption of stablecoins. Market Confidence (MC) pertains to the extent of belief and religion that market individuals have in the universal balance and reliability of the cryptocurrency market (Liao & Caramichael, 2022). This confidence is shaped by a myriad of factors, which include the historic volatility of cryptocurrencies, regulatory trends, safety concerns, and the overall market sentiment (Kimmerl, 2020).

Stablecoin Adoption (SA), however, signifies the degree to which individuals and entities incorporate stablecoins into their cryptocurrency portfolios and sports. This can include using stablecoins as a medium of exchange, a store of value, or for buying and selling purposes. The courtship between MC and SA is symbiotic and jointly reinforcing (Kothari & Gu, 2018). When marketplace contributors have high self-belief in the broader cryptocurrency market, they may be more likely to explore and embrace stablecoins as a complementary and danger-mitigating device. During periods of market turbulence or heightened volatility in conventional cryptocurrencies, stablecoins are regularly perceived as a secure haven, bolstering SA (Allen, Gu, & Jagtiani, 2022; Sandri, Alshiyah, & Sha'Ban, 2022).

Conversely, the considerable adoption of stablecoins can, in turn, decorate MC. As stablecoins emerge as deeply integrated into the cryptocurrency atmosphere, their presence can contribute to market stability by imparting liquidity, lowering volatility, and fostering consideration. This can further inspire marketplace individuals to have faith in the cryptocurrency marketplace as a whole, solidifying the connection between MC and SA. Several elements impact the dynamics of this dating, which include the transparency and regulatory compliance of stablecoins, their technological robustness, and the stability mechanisms they employ. Regulatory trends also play a huge function in shaping MC and, eventually, SA (Van Echelpoel et al., 2020).

The presence of clean and supportive policies can instill greater self-belief in the cryptocurrency market as a whole, solidifying the connection between MC and SA. Furthermore, the voluntary nature of participation ensures that respondents are willing to engage with the study, reducing the likelihood of non-response bias and enhancing the reliability of the findings.

H. Market Confidence significantly impacts Stablecoin Adoption.

3. Research Methodology and Results

3.1. Sampling Technique

In this study, a purposive sampling technique was employed to select participants who were likely to have relevant insights and views on the issue of Market Confidence and Stablecoin Adoption within the cryptocurrency ecosystem. Purposive sampling involves selecting individuals who meet specific criteria that align with the research objectives. In this case, the criteria included individuals who are 18 years of age or older, have experience with or awareness of cryptocurrencies, and are willing to participate voluntarily. We choose purposive sampling for several reasons. Firstly, the study aims to investigate the relationship between Market Confidence and Stablecoin Adoption within the cryptocurrency ecosystem, which requires input from individuals who are knowledgeable about cryptocurrencies. Using purposive sampling allowed the researchers to target respondents with relevant experience and awareness, ensuring the collected data is informative and meaningful. Additionally, by limiting the sample to individuals who are 18 years of age or older, the researchers ensured that the participants were legally able to participate in the study. This helps maintain ethical standards and ensures the validity of the data collected. Furthermore, the voluntary nature of participation ensures that respondents are willing to engage with the study, reducing the likelihood of non-response bias and enhancing the reliability of the findings.

3.2. Data Collection Method

We conducted data collection using a combination of online methods, including social media networks, emails, and WhatsApp invitations. These platforms were chosen for their widespread usage and ability to reach a large number of potential participants. We also employed the snowball technique, which encourages participants to share the survey link with others, thereby expanding the sample’s reach and diversity.

3.3. Sample Size

Over the course of two months, we collected a total of 198 complete responses. This sample size is considered adequate for conducting statistical analysis and drawing meaningful conclusions, given the focus of the study and the chosen methodology.

3.4. SEM-PLS Analysis

The SEM-PLS model (Structural Equation Modeling - Partial Least Squares) is a statistical approach utilized for analyzing correlations between numerous variables, especially beneficial for investigating complex phenomena such as attitudes and ideas concerning cryptocurrency. The model comprises two phases: the
measurement (outer) model and the structural model. The structural model facilitates the exploration of multivariate connections between variables and enables the evaluation of research hypotheses using statistical tests such as T-statistics and P-values. We employed the SEM-PLS model in this study to investigate correlations between variables and assess research hypotheses. The findings from both the measurement and structural models offer crucial insights into variable relationships and aid in determining the support for hypotheses based on the data.

3.5. PLS Measurement Model Findings

Item loading, an essential parameter of the PLS outer model, measures the extent to which each survey item correlates with its latent variable. In this study, attitudes, beliefs, and trust in cryptocurrencies serve as latent factors, while specific survey items constitute the manifest variables assessing these constructs. Analysis revealed that all survey items exhibited item loadings exceeding 0.6, indicating their legitimacy for inclusion in the outer model analysis. Also, looking at the PLS outer model showed that all survey questions had consistently high item loadings, which made them even better for figuring out how the model's latent variables are related. To assess the internal and external validity of latent variables, AVE (Average Variance Extracted) and Cronbach's Alpha scores are employed. High AVE and Cronbach's Alpha values suggest the legitimacy and reliability of latent variables for testing research hypotheses effectively. AVE estimates show the proportion of variance explained by a latent variable, with values greater than 0.5 indicating satisfactory external validity. Cronbach's Alpha values exceeding 0.7 signify internal consistency and reliability, affirming the soundness of the latent variables for hypothesis testing. Thus, the study's latent variables exhibit strong internal and external validity, facilitating rigorous testing of research hypotheses. Table 1 represents the constructs of validity and reliability.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach's alpha</th>
<th>Composite reliability (rho_a)</th>
<th>Composite reliability (rho_c)</th>
<th>Average variance extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market confidence</td>
<td>0.718</td>
<td>0.766</td>
<td>0.839</td>
<td>0.638</td>
</tr>
<tr>
<td>Perceived volatility reduction</td>
<td>0.752</td>
<td>0.754</td>
<td>0.843</td>
<td>0.574</td>
</tr>
<tr>
<td>Risk perception</td>
<td>0.702</td>
<td>0.721</td>
<td>0.832</td>
<td>0.623</td>
</tr>
<tr>
<td>Stablecoin usage frequency</td>
<td>0.809</td>
<td>0.853</td>
<td>0.893</td>
<td>0.743</td>
</tr>
<tr>
<td>Stablecoin adoption</td>
<td>0.866</td>
<td>0.872</td>
<td>0.909</td>
<td>0.713</td>
</tr>
</tbody>
</table>

The Fornell-Larcker criterion assesses the discriminant validity of the study's latent variables. According to the Fornell-Larcker criteria (Hair, Hult, Ringle, Sarstedt, & Thiele, 2017) a latent variable demonstrates discriminant validity if the square root of its Average Variance Extracted (AVE) score exceeds its correlations with other latent variables. This criterion aids in evaluating the distinctiveness of the study's latent variables. Table 2 demonstrates that each latent variable maintains uniqueness from the others, thereby facilitating the proper evaluation of the study hypotheses.

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market confidence</td>
<td>0.904</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived volatility reduction</td>
<td>0.572</td>
<td>0.811</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk perception</td>
<td>0.539</td>
<td>0.533</td>
<td>0.910</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stablecoin usage frequency</td>
<td>0.465</td>
<td>0.522</td>
<td>0.719</td>
<td>0.822</td>
<td></td>
</tr>
<tr>
<td>Stablecoin adoption</td>
<td>0.679</td>
<td>0.512</td>
<td>0.566</td>
<td>0.767</td>
<td>0.612</td>
</tr>
</tbody>
</table>

3.6. PLS Structural Model Findings

The inner SEM-PLS model of the study, examining the relationships among latent variables, reveals associations between faith in cryptocurrencies, perceived risks, and financial literacy. Table 3 presents the beta values, T-statistics, and P-values for the path coefficients, indicating the strength and relevance of the variable correlations (Hair et al., 2017).

Furthermore, the inner SEM-PLS model findings validate the significant support of all research hypotheses at the 0.05 level. These findings provide evidence for the correlations among the variables under investigation, supporting the study's hypotheses and offering valuable insights for policymakers and scholars interested in cryptocurrency adoption.
Table 3. Path coefficients - mean, STDEV, T values, P values.

<table>
<thead>
<tr>
<th>Path coefficients</th>
<th>Original sample (O)</th>
<th>T statistics (O/STDEV)</th>
<th>P values</th>
<th>Hypothesis result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market confidence -&gt; Stablecoin adoption</td>
<td>0.198</td>
<td>2.696</td>
<td>0.007</td>
<td>Supported</td>
</tr>
<tr>
<td>Perceived volatility reduction -&gt; Stablecoin adoption</td>
<td>0.193</td>
<td>2.133</td>
<td>0.033</td>
<td>Supported</td>
</tr>
<tr>
<td>Risk perception -&gt; Stablecoin adoption</td>
<td>0.303</td>
<td>4.172</td>
<td>0</td>
<td>Supported</td>
</tr>
<tr>
<td>Stablecoin usage frequency -&gt; Stablecoin adoption</td>
<td>0.159</td>
<td>2.254</td>
<td>0.024</td>
<td>Supported</td>
</tr>
</tbody>
</table>

We also evaluate the R2 values for the study's endogenous constructs. The R2 values indicate the extent to which the external constructs can explain the variance in each construct. The R2 of Stablecoin Adoption in the current study is 0.580, suggesting that the exogenous components explain 58% of the variation in Stablecoin Adoption. We validated the research model in SmartPLS 4.0, as shown in Figure 1. For each research construct, the SEM-PLS model provided the item loadings, beta values, and r-squared values.

4. Discussion

The research findings shed light on a crucial aspect of cryptocurrency adoption, emphasizing the significant impact of perceived volatility on stablecoin adoption. In recent years, stablecoins such as USD Coin (USDC) or Tether stablecoin (USDT) have witnessed widespread adoption, largely attributed to their ability to address the inherent price volatility associated with traditional cryptocurrencies like Bitcoin and Ethereum. This discovery resonates with the overarching sentiment within the crypto community, where users and investors seek stability to enhance the utility and reliability of their digital assets (Hsu et al., 2022; Kimmerl, 2020). Numerous factors contribute to the observed phenomenon. Firstly, stablecoins are typically peg to fiat currencies like the US Dollar, offering an inherent sense of stability. This pegging mechanism ensures users that the value of their assets will not experience drastic fluctuations, a concern that often acts as a deterrent to adopting other cryptocurrencies. Moreover, the stability inherent in these digital currencies positions them as reliable mediums of exchange and stores of value, essential characteristics of any currency (Liao & Caramichael, 2022). Prior research in the realm of cryptocurrency adoption has consistently highlighted the significance of stability. Studies have demonstrated that stability in terms of value preservation plays a pivotal role in driving cryptocurrency usage both as a medium of exchange and a store of value (Ciaian, Rajcaniova, & Kancs, 2016). These findings underscore the continuity of fundamental economic principles across traditional and digital financial systems.

Furthermore, individual confidence closely intertwines with the perceived volatility reduction associated with stablecoins. When users perceive a digital asset as less volatile, they are more inclined to trust it and integrate it into their economic activities, including online transactions, remittances, and investment ventures (Allen et al., 2022). This alignment with advanced research underscores the psychological aspect of stability.
perception in driving adoption trends. Expanding on the significance of perceived volatility in stablecoin adoption, it's imperative to delve into the broader implications for the cryptocurrency ecosystem. By addressing the volatility issue, stablecoins pave the way for increased mainstream adoption and utilization of cryptocurrencies for everyday transactions. Furthermore, these digital assets provide stability, paving the way for innovative financial products and services like decentralized finance (DeFi) platforms, where stablecoins play a crucial role in lending, borrowing, and liquidity provision. In addition to mitigating volatility concerns, stablecoins also offer a gateway for individuals in economically unstable regions to access global financial markets with relative stability. This democratization of financial access aligns with the ethos of decentralization and financial inclusion championed by the broader cryptocurrency community. Also, the findings underscore the pivotal role of perceived volatility in driving the adoption of stablecoins within the cryptocurrency ecosystem. By providing stability and confidence to users, stablecoins not only address a fundamental barrier to mainstream cryptocurrency adoption but also open avenues for financial innovation and inclusion on a global scale. We cannot overstate the importance of stability in shaping user behaviours and adoption trends as the crypto landscape continues to evolve.

The findings discussed underscore the profound impact of risk perception on stablecoin adoption, elucidating the pivotal role that risk perception plays in molding the adoption trajectory of stablecoins within the dynamic landscape of the cryptocurrency ecosystem. This discovery resonates strongly with prior scholarly inquiries and overarching economic paradigms, which assert that both individuals and institutions tend to exhibit a natural inclination towards risk aversion when navigating financial decisions (Mukhamedov, 2022). In the realm of stablecoins, the assurance of value preservation is a cornerstone of risk perception. Users gravitate towards stablecoins, enticed by the notion of a secure harbor amidst the tumultuous seas of cryptocurrencies. Stablecoins are typically tethered to stable assets such as fiat currencies, offering semblance of predictability that mitigates the perceived risk of value erosion stemming from price volatility—a risk that looms large in the case of other cryptocurrencies (Sween, 2025). This empirical insight resonates harmoniously with antecedent research, which underscores the paramount importance of trust and confidence in influencing cryptocurrency adoption patterns. Users exhibit a greater propensity to embrace stablecoins when they perceive them as steadfast and low-risk assets. This sentiment echoes earlier research findings that underscore the cardinal significance of stability in propelling cryptocurrency adoption as both a medium of exchange and a store of value (Ciaian et al., 2018). Scholarly discourse has consistently highlighted the formidable barrier of perceived risks associated with cryptocurrencies, which hinder their widespread adoption (Al-Omoush, Ribeiro-Navarrete, & McDowell, 2025; Yermack, 2013). These concerns encompass apprehensions regarding price volatility, regulatory ambiguity, and the specter of fraudulent activities lurking within the cryptosphere. By prioritizing volatility reduction, stablecoins proactively address a subset of these concerns, thereby aligning with users' preferences for risk mitigation.

Expanding upon this narrative, it becomes evident that stablecoin adoption represents a convergence of user preferences and risk perception dynamics. Stablecoins’ enhanced liquidity and accessibility within the cryptocurrency ecosystem attract users beyond the allure of stability. The ability to seamlessly transact and transfer value across borders, coupled with the assurance of price stability, imbues stablecoins with a multifaceted appeal that transcends traditional cryptocurrencies. Moreover, stablecoins serve as a gateway for individuals and businesses seeking to dip their toes into the realm of cryptocurrencies, offering a less daunting entry point compared to their more volatile counterparts. In essence, stablecoins emerge as a testament to the cryptocurrency ecosystem's evolutionary trajectory, wherein innovation converges with user demands and risk perception dynamics to sculpt novel financial instruments that cater to a diverse array of needs. As regulatory frameworks continue to evolve and market dynamics undergo constant flux, the role of stablecoins is poised to evolve in tandem, potentially reshaping the broader landscape of finance and digital asset utilization. Thus, while risk perception serves as a guiding compass shaping stablecoin adoption today, it also heralds the dawn of a new epoch in financial innovation—one where stability, trust, and user-centric design converge to redefine the contours of value exchange in the digital age.

Moreover, the result that Stablecoin Usage Frequency considerably influences Stablecoin Adoption highlights the interconnected relationship between how often stablecoins are used and their overall adoption in the cryptocurrency environment. This location is consistent with prior studies and underscores the realistic importance of stablecoins as a method of undertaking transactions and storing value in an extra-strong virtual form (Catalini & Gans, 2019). The frequency of stablecoin utilization may be seen as a mirrored image of the software and trustworthiness with which customers partner with these digital properties. Various cryptocurrencies transactions regularly employ stablecoins as a medium of trade, including trading, remittances, and online purchases. Users who often make use of stablecoins probably achieve this because they value the stability and predictability that those belongings provide in assessing extra-risky cryptocurrencies (Catalini & Gans, 2019). This result aligns with previous studies that have emphasized the importance of software and practicality in cryptocurrency adoption (Gandal, Hamrick, Moore, & Oberman, 2018). Users are more willing to adopt and maintain the usage of stablecoins when they find them handy and powerful for their financial desires. Frequent utilization is indicative of a tremendous comments loop, wherein individuals enjoy the benefits of balance and software, which, in turn, motivates them to incorporate stablecoins into their normal monetary activities. Moreover, this finding aligns with the wider understanding that adoption of
digital currencies, such as stablecoins, frequently hinges on network consequences (Catalini & Gans, 2019). As more users interact with stablecoins and use them for everyday transactions, the community will become more treasured, attracting even more participants. This tremendous comment loop can extensively accelerate stablecoin adoption and further toughen their software.

Finally, the finding the market self-assurance significantly influences stablecoin adoption is a crucial insight into the dynamics of stablecoin adoption within the cryptocurrency ecosystem. It underscores the pivotal role that investor and individual confidence play in the great acceptance and usage of stablecoins. This finding is in alignment with prior studies and resonates with set-up monetary theories that emphasize the significance of accepting as true and self-belief in financial markets (Allen et al., 2022). Market self-assurance in stablecoins refers to the belief amongst users and buyers that those digital properties are reliable, stable, and fulfill their intended motive correctly. Several factors, such as transparency in stablecoin issuers' operations, regulatory compliance, and the stability of the pegged assets, can motivate this confidence (Kothari & Gu, 2018). Previous research has highlighted that belief and confidence are vital determinants of cryptocurrency adoption (Catalini & Gans, 2019). Users are more likely to include stablecoins once they understand them as sincere alternative to conventional currencies or as a means of reducing exposure to the volatility inherent in different cryptocurrencies. Furthermore, the overall fitness and stability of the broader cryptocurrency market closely correlates with market confidence in stablecoins. When cryptocurrency markets enjoy intervals of severe volatility or uncertainty, customers may also be seeking refuge in stablecoins as a secure haven asset, reinforcing the connection between marketplace confidence and stablecoin adoption. This result additionally aligns with the perception of network consequences in the cryptocurrency space (Gandal et al., 2018). As more users and investors gain specific self-assurance in stablecoins, it draws additional participants, in addition to strengthening the steadiness and application of those properties. This fantastic remarks loop can drastically boost the adoption of stablecoins (MacDonald & Zhao, 2022).

5. Theoretical, Practical Implications, Limitations and Future Research Directions

5.1. Theoretical Implications

1. Trust and Confidence in Digital Assets: The location reinforces the significance of trust and self-belief in cryptocurrency adoption, extending traditional financial theories to the digital realm. It underscores the idea that a person believes is not just about technology but also about the reliability and stability of the property itself.

2. Network Effects: A look at aligns with community consequences theories, emphasizing that the greater customers trust in stablecoins, the more treasured and widely followed they turn out to be. This network effect can cause a self-reinforcing cycle of adoption, making stablecoins increasingly essential within the cryptocurrency environment.

3. It emphasizes the role of behavioural economics in cryptocurrency adoption. Users tend to be threat-averse, and their confidence in a solid and predictable asset like stablecoins is a result of behavioral biases that want balance and reliability.

5.2. Practical Implications

1. Regulatory Focus: Regulators and policymakers may additionally use this insight to shape guidelines and oversight for stablecoin issuers. Ensuring transparency, compliance, and reliability inside the stablecoin market can enhance market self-assurance and shield customers.

2. Business Strategy: Companies and projects operating within the cryptocurrency space can benefit from understanding the significance of market confidence. Building considerations such as transparency, audibility, and adherence to regulatory requirements can be a strategic advantage in attracting users and traders.

3. Risk Management: Investors and customers can use this insight to inform their threat management strategies. Understanding that marketplace confidence influences stablecoin adoption can have an impact on selections on asset allocation and portfolio diversification, specifically at some points of high cryptocurrency marketplace volatility.

4. Financial Inclusion: Stablecoins, due to their balance, can play an important function in expanding financial inclusion. The sensible implication is that promoting self-assurance in those belongings can help bridge the gap between the conventional economic device and underserved populations, especially in regions with excessive volatility in neighborhood currencies.

5.3. Limitations

1. Generalizability: One limitation of the study is the potential lack of generalizability of the findings beyond the specific context of the cryptocurrency ecosystem in which the research was conducted. The study focused on Malaysian individuals, and factors influencing stablecoin adoption may vary across different countries and cultures. Therefore, one should exercise caution when extrapolating the results to broader populations or other geographic regions.

2. Sampling Bias: Another limitation relates to the sampling method employed. While purposive sampling allowed for the selection of participants with relevant insights into cryptocurrency adoption, it may introduce...
bias as individuals self-select to participate. This could result in an overrepresentation of certain demographic groups or individuals with specific views or experiences, potentially skewing the findings.

3. Self-Reporting Bias: The study relied on the participants’ self-reported data, which may be subject to biases such as social desirability bias or recall bias. Participants may provide responses that they perceive as favorable or socially acceptable, leading to an overestimation or underestimation of certain factors influencing stablecoin adoption.

4. Cross-Sectional Design: The study utilized a cross-sectional design, capturing data at a single point in time. While this provides a snapshot of stablecoin adoption and its influencing factors, it does not allow for the examination of changes or trends over time. Longitudinal studies would provide more insights into the dynamics of stablecoin adoption and the evolution of market confidence.

5.4. Future Research Directions

1. Comparative Analysis: Future research could explore stablecoin adoption and its influencing factors across different countries and regions to assess variations in market dynamics, regulatory environments, and cultural attitudes towards cryptocurrencies. Comparative studies would enhance our understanding of the global landscape of stablecoin adoption and shed light on the factors driving adoption in diverse contexts.

2. Longitudinal Studies: Studies tracking stablecoin adoption over time would provide insights into the sustainability and persistence of adoption trends. By longitudinally examining changes in market confidence, risk perception, and usage frequency, researchers can identify emerging patterns and assess the long-term impact of stablecoins on the cryptocurrency ecosystem.

3. Qualitative Research: Complementing quantitative analysis with qualitative research methods such as interviews or focus groups could offer deeper insights into individuals’ attitudes, motivations, and decision-making processes regarding stablecoin adoption. Qualitative research can reveal subtle elements that may not be captured through quantitative surveys alone, enriching our understanding of stablecoin adoption dynamics.

4. Regulatory Analysis: Given the regulatory complexities surrounding stablecoins, future research could investigate the impact of regulatory frameworks on stablecoin adoption and market confidence. Understanding how regulatory changes influence user behavior and market dynamics is crucial for policymakers and industry stakeholders seeking to foster innovation while mitigating risks in the cryptocurrency space.

6. Conclusions

Numerous effects mentioned regarding stablecoin adoption screen several key insights into the dynamics of those digital assets inside the cryptocurrency surroundings. These findings not only provide deeper information on ways and why stablecoins are being adopted but additionally shed light on their broader implications for the finance.

Firstly, the results consistently emphasize the significance of balance and reduced volatility in stablecoin adoption. Whether it is perceived volatility reduction, risk belief, or market confidence, the not-unusual thread is the desire for stability and predictability in a relatively risky cryptocurrency market. Stablecoins, pegged to fiat currencies or other solid assets, satisfy this need by presenting a dependable shop of value and a stable medium of exchange.

Secondly, those findings align with preceding studies on the subject of cryptocurrency adoption. Trust and self-belief have long been diagnosed as essential elements in the choice-making process of cryptocurrency users and buyers. Stablecoins, by reducing the danger and uncertainty related to different cryptocurrencies, resonate with the inherent hazard-averse nature of individuals and institutions.

Moreover, the effects underscore the significance of sensible software in driving stablecoin adoption. Stablecoins are frequently used to reflect their relevance and convenience in a variety of financial sports, reinforcing their adoption through community results. Users and traders are much more likely to embrace stablecoins after they find them powerful for transactions, investments, or remittances, echoing mounted monetary principles. From a realistic perspective, those findings have real-world implications for stakeholders in the cryptocurrency environment. Regulators can use insights about market confidence to shape rules that protect customers and ensure the stability of the stablecoin market. Businesses and initiatives can broaden techniques to construct agreements through transparency and compliance with regulatory requirements.

Stablecoins are poised to maintain their pivotal role within the cryptocurrency landscape and beyond. As the global financial machine continues to adapt, stablecoins provide a bridge between the traditional economic machine and the sector of virtual assets, offering users a reliable and strong alternative. Understanding the drivers of stablecoin adoption, including perceived volatility reduction, chance perception, marketplace confidence, and sensible software, is important for correctly navigating this dynamic and transformative space. These findings contribute to a deeper comprehension of the evolving cryptocurrency landscape and its implications for the future of finance.
References


