

**Fee sensitivity of crypto investors: The role of perceived integrity, trust and
brand loyalty**

24072754

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Abstract

The explosive growth in the cryptocurrency industry has led to intense industry rivalry. With many crypto exchanges competing on price, they inadvertently enter into price wars, suppressing profit margins and firm sustainability. For this reason, a deeper understanding of the antecedents of price sensitivity is required to build pricing power and differentiate propositions in the market.

Research on the factors that influence the fee sensitivity of crypto investors remains undiscovered. This quantitative study examined relationships and correlations among more than 100 crypto investors across South Africa, Nigeria, Kenya, Malaysia and Indonesia, focusing on the effects of perceived integrity, trust, and brand loyalty on their fee sensitivity to their primary crypto exchange.

The study made three key academic contributions: First, that perceived integrity of the crypto exchange, despite the volatility of the crypto industry, is not a significant predictor of fee sensitivity. Second, that trust and brand loyalty do not significantly mediate the relationship between perceived integrity and fee sensitivity. Finally, the findings underscored the importance of brand loyalty in lowering sensitivity and increasing pricing power.

Decision-makers at crypto exchanges should avoid price wars and focus on initiatives that build brand loyalty. Future research should consider the impact of national culture on fee sensitivity and examine the role of trust as a categorical or continuous construct.

Keywords

Cryptocurrency; Fee Sensitivity; Perceived Integrity; Brand Loyalty; Trust

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

Marius Reitz

03 November 2025

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CHAPTER 1: INTRODUCTION TO RESEARCH PROBLEM

1.1 Research problem

The minting of the first cryptocurrency, Bitcoin, in 2008 signalled the dawn of a new era and category of financial assets, all part of the global financial system. Fast forward 17 years, and this new asset class, whose demise has been predicted by the mainstream media more than 477 times, has grown into a \$4 trillion market (99Bitcoins, 2001). Powering crypto investments is an innovative business model that combines existing and new financial infrastructure, including cryptocurrency exchanges. Crypto exchanges play a crucial role by enabling investors to seamlessly trade between fiat currencies, such as the US dollar, and cryptocurrencies.

In recent years, competition among cryptocurrency exchanges has intensified, prompting many firms to engage in aggressive fee reductions to attract and retain investors and protect their market share (Morris, 2024). More than 253 exchanges, as listed on the popular crypto data aggregator platform, CoinMarketCap, vie for a growing but still modest total addressable market (*Cryptocurrency Exchanges Ranked by Volume | CoinMarketCap*, 2025).

The dilemma: Traditional theories, such as Game Theory and Porter's Five Forces model, warn that intense fee-based competition erodes individual firm and industry profit in the long term (*How to Fight a Price War*, 2000). Companies retaliate against new rivals by lowering fees; however, despite some firms enjoying dominant market share, almost all firms are worse off economically than before a price war. In 2024, Nasdaq-listed crypto exchange Coinbase announced it was slashing fees to increase its market share of crypto trading volumes, in the wake of foreign rivals entering the US crypto market (Chipolina, 2024).

Crypto exchanges operating in emerging markets must contend with the volatility of the external environment, for example, the eroding purchasing power of local currencies like the Nigerian naira (Michael, 2024). As disposable income levels fall, trading volumes on crypto exchanges and their revenue come under pressure, exacerbating the impact of margin compression driven by competitive pressures

and the desire to grow market share. Crypto exchanges typically follow a competitor-based pricing approach, positioning their products and services relative to their direct competitors' pricing. Pricing decisions rarely incorporate an analysis of investor fee sensitivity, which is rooted in behavioural economics and consumer behaviour. The degrees of perceived integrity, trust, and brand loyalty could provide firms with one additional lens through which to weigh pricing decisions and build pricing power (Alderman et al., 2024).

Corporate pricing power has eroded due to economic downturns and industry rivalry. Compared with traditional assets such as shares, commodities, and foreign currency, crypto still attracts a fee premium, as investors regard it as a new financial product traded in a niche, specialist market. Despite a maturing industry, it is not easy for the average investor or individual to find a trusted cryptocurrency exchange to convert Rand or Dollars into crypto, and vice versa. Therefore, is it too far-fetched to charge a premium for a trusted, scarce and critical service offering?

The majority of cryptocurrency exchanges offer similar services, such as custody, brokerage, and yield products. Exchanges suffer from a lack of product and service differentiation, which makes customer switching between exchanges easy and inexpensive, often in response to market-penetration pricing tactics by many new entrants. In the United States, providers offering Bitcoin-backed exchange-traded funds have entered a race to the bottom, employing low-fee strategies to gain market share in this new alternative asset class (Morris, 2024). Grayscale, the incumbent bitcoin asset manager, experienced \$1.1 billion in investment outflows in just three days as investors moved funds into lower-cost funds (Pereira, 2024).

In South Africa, financial media regularly conduct product and fee comparisons between exchanges and report on updates to exchange fee structures as if they were news events. This approach pits exchanges against one another, and the reasoning typically holds that the lowest-cost provider is the logical choice for cryptocurrency investors (Ryan, 2025).

The profitability of individual cryptocurrency exchanges is important for the overall stability of the industry. This nascent industry faces unique factors that impact profitability. Firstly, the lack of a diversified product revenue mix, with transactional

revenue models accounting for the majority of monthly revenue. Consequently, reduced market volatility and churning customer base result in revenue contraction, placing cash flow pressure on individual firms. Coinbase, a Nasdaq-listed crypto exchange, generated 70% of its Q4 2024 revenue from transactions (*Coinbase - Financials - Quarterly Earnings*, 2024).

Profit and Loss pressure is exacerbated by a high and rising cost of compliance, due to the specialist nature of blockchain transaction monitoring services and the increased labour force requirements resulting from the regulatory burden (*Study Reveals Annual Cost of Financial Crime Compliance Totals \$61 Billion in the United States and Canada*, n.d.). Business models are vulnerable to changes in the external environment, such as political risk, and to new, sudden regulatory requirements that increase costs and complexity. Creating a key challenge of dwindling customer retention rates, unstable and unpredictable financial health and enterprise sustainability.

A price war drives margins lower, with limited room for cost reductions. In an effort to protect transactional volume market share, exchanges react defensively and match industry rivals with fee reductions. This results in a classic prisoner's dilemma, where firms act in their own self-interest, reducing the profitability of individual firms and the industry as a whole (*Prisoner's Dilemma* | EBSCO, 2023).

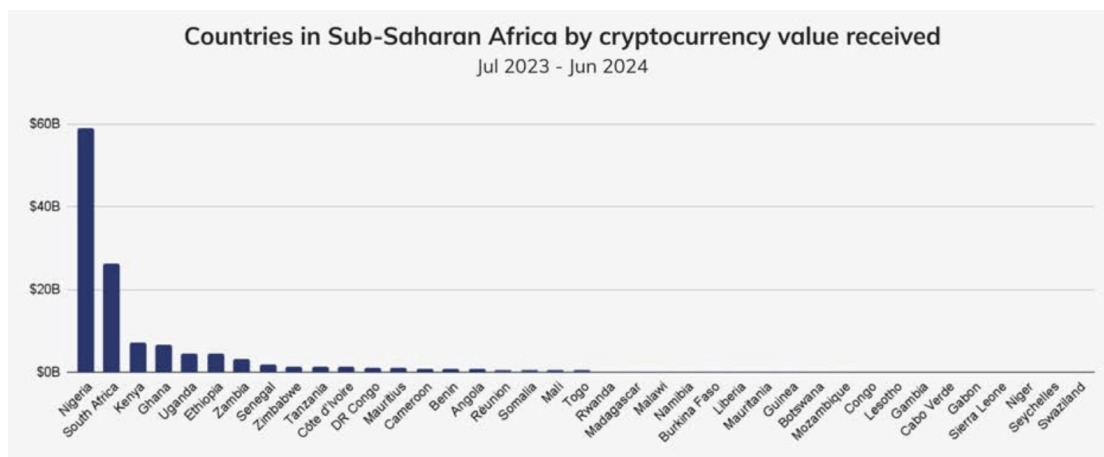
Unlike the traditional banking and financial brokerage markets, crypto exchanges still operate in a largely unregulated industry. In most emerging market countries with high cryptocurrency adoption rates, cryptocurrency-specific regulations are still in the early stages of formation. South Africa stands out as an exception, where regulators impose strict conduct and operating standards on crypto exchanges, on par with existing financial service providers (Refinery, 2024).

As global crypto adoption rises, investors face risks ranging from exchange failures to cybersecurity breaches that could expose investor funds if entrusted to less credible exchanges. Figure 1 illustrates the rankings of crypto adoption among Sub-Saharan African countries. Nigeria, which experienced deteriorating macroeconomic conditions over the past decade, as highlighted, leads crypto adoption in Africa. Crypto exchanges account for the majority of the transactional

volumes depicted in Figure 1, with volumes of almost \$60B and \$30B in Nigeria and South Africa, respectively. These high volumes underscore the need for capable exchanges to protect the integrity of the industry, protect investors, and make pricing decisions that contribute to the long-term sustainability of these firms.

Figure 1

Crypto adoption Sub-Sahara Africa



Note. Cryptocurrency adoption ranking for countries in Africa. From “*The 2024 Global Adoption Index: Central & Southern Asia and Oceania (CSAO) region leads the world in terms of global cryptocurrency adoption,*” by Chainalysis, 2025.

At their core, exchanges fulfil the same functions as traditional financial services providers (FSPs). As formally designated in South Africa under the Financial Advisory and Intermediary Services Act (FAIS Act). Regulations introduced a shift in the dynamics of crypto exchanges. As of May 2025, 9% of South African households trust financial advisors with their financial planning and investment decisions (Refinery, 2025), with 40% of these households earning R40,000 and more a month. This new dynamic poses a revenue risk to crypto exchanges, and may result in a shift from "do it yourself investment to financial advisor-led investments. Existing crypto investors may transfer their crypto assets to a financial advisor due to an existing relationship, higher perceived integrity, trust and loyalty. Given the well-publicised collapse of high-profile crypto exchanges, understanding the role of integrity and trust has become essential.

In November 2022, the global crypto industry faced its first significant test when FTX, one of the largest cryptocurrency exchanges at the time, collapsed, resulting in an estimated \$10 billion in losses of customer assets (*The Exchange: Takeaways From the Takedown*, 2024). As reported by Schwartz (2022), John Ray, the experienced interim CEO of FTX, appointed to oversee the liquidation proceedings, is now famously quoted as saying, "Never in my career have I seen such a complete failure of corporate controls and such a complete absence of trustworthy financial information." Trust in the crypto industry declined due to the forced liquidation of FTX, a then-household name (Conlon et al., 2023).

The FTX and other examples demonstrate that low fees should not be the only factor investors consider when choosing their primary crypto exchange. The price to pay for transacting with an exchange that has little or no intention, or capability, to safeguard clients' funds and information could far exceed the opportunity cost of incurring higher transaction costs. Increased industry rivalry and fee-based competition, and the need for investor protection, create a unique environment for studying the interplay between trust and fee sensitivity.

1.2 Research purpose

The academic contribution of this research study is to examine the relationship between perceived integrity of crypto exchanges and fee sensitivity of crypto investors, and to explore the mediating roles of trust and brand loyalty within the context of cryptocurrency exchanges. By doing so, it will address the limited understanding of crypto investors' fee sensitivity and provide insights to crypto exchange executives on the psychological and behavioural factors that shape it, and ultimately customer retention.

Through a Trust Theory lens (Mayer et al., 1995), crypto exchanges can better understand the impact of psychological factors, such as perceived integrity, trust, and brand loyalty, on investor decisions, such as their willingness to pay fees in an environment where industry rivals are in a race to the bottom. A conceptual model (Figure 6) depicts the relationships among the research constructs: Perceived Integrity (independent variable), Trust (mediator 1), Brand Loyalty (mediator 2), and Fee Sensitivity (dependent variable).

Previous studies have found relationships between perceived integrity (Van Dalen & Henkens, 2018), trust (Van Der Crujisen et al., 2021) and brand loyalty (Rust, 2019) and/or the pricing power, willingness to pay or price sensitivity of clients of traditional financial services, like banks, and online e-commerce platforms. However, to the researchers' knowledge, no prior research has examined the relationship between these constructs in the specific context of the cryptocurrency industry.

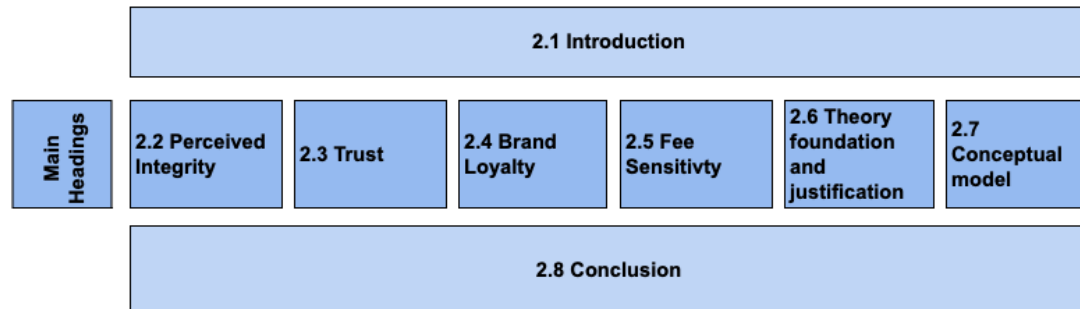
Given the high-profile collapses of crypto exchanges and the increasing public scrutiny of exchange reliability (Conlon et al., 2023), understanding the role of integrity, trust, and brand loyalty has become timely and essential. Academic research, such as that by Van Der Crujisen et al. (2021), has demonstrated the crucial role of trust in customer loyalty in the banking and retirement investment sectors. Due to the crypto industry's adjacency to traditional finance, existing literature on banking, pension providers, and insurance provides insights into the determinants of perceived integrity and its correlation with trust and loyalty (Van Dalen & Henkens, 2018). There is a direct relationship between customer loyalty and brand positioning, which has a positive impact on firm profitability (Fourie et al., 2022).

For businesses, understanding investor fee sensitivity in the crypto industry can impact pricing models, investment decisions and new project appraisals. Furthermore, it can provide firms with insights into various revenue drivers, including customer activity, retention and average revenue per customer. Finally, in an industry with low product differentiation, crypto exchanges can differentiate themselves from competitors through psychological factors, such as trust, which is imperative in financial services.

CHAPTER 2: LITERATURE REVIEW

Figure 2

Outline of Chapter 2: Literature review



2.1 Introduction

The literature review chapter reviews existing literature on the antecedents of fee sensitivity and the associated constructs as outlined in Figure 2. This review draws together theoretical perspectives on perceived integrity, trust, brand loyalty, and fee sensitivity, primarily in the context of financial services or online transactions.

It further examines theoretical frameworks that explain the mechanisms linking perceived integrity to user behaviour, through trust and brand loyalty, thereby identifying key mediating processes. The chapter structures the content into three main sections: a review of the individual constructs, a discussion of relevant theoretical perspectives, and the development of the conceptual model that underpins the study.

2.2 Perceived Integrity

In an industry not yet as widely regulated as the broader financial services industry, trust and its antecedents are imperative. Trust in the banking sector has reached a high since the 2008 financial crisis. Banks scored 66% and were "trusted" in 16 of 28 countries polled, according to the Edelman Trust Barometer. In comparison, cryptocurrency scored 38% and falls within the "distrusted" category (*Financial Services Sector Trusted for the First Time Since the Global Financial Crisis*, 2024). A lack of trust in financial services providers not only impacts firm performance but

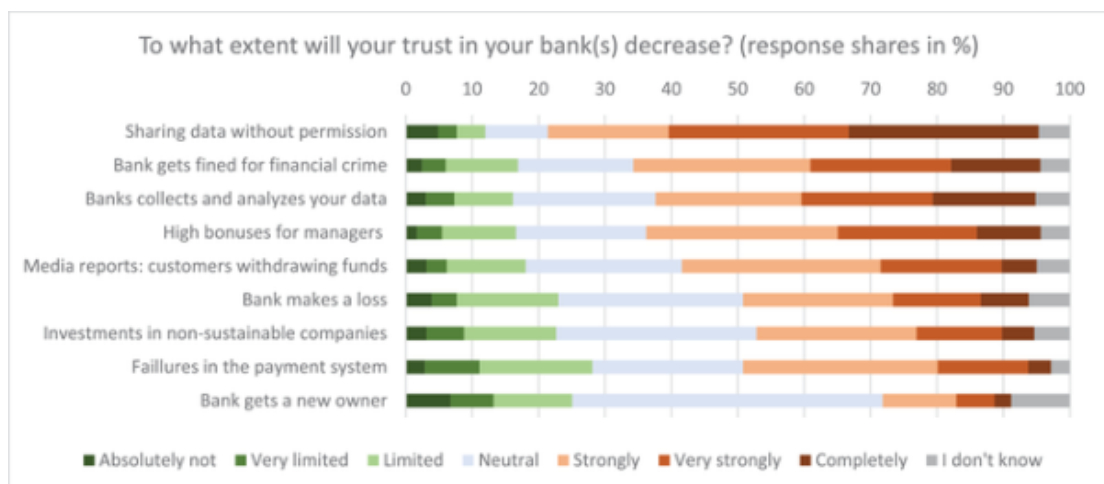
also slows the adoption rate of the underlying assets of the products they offer. In this research, the adoption rate of crypto assets (Van Der Crujisen et al., 2021).

Integrity is an important factor in assessing the trustworthiness of financial institutions, including cryptocurrency exchanges (Van Dalen & Henkens, 2018). Prior research define integrity as the perceived adherence to a preconceived standard or set of principles acceptable to customers (Van Dalen and Henkens, 2018). Perceived integrity strengthens the relationship between trust and behavioural outcomes, such as customer loyalty, in a financial services context. Consequently, a lack of integrity can undermine trust, negatively impact customer loyalty, and make financial institutions vulnerable to a churning customer base (Van Der Crujisen et al., 2021).

Figure 3 lists the trigger events that lead to a significant decrease in trust in banks (Van Der Crujisen et al., 2021). These trust-damaging behaviours include the sharing of client data without their consent and the bank committing financial crimes, with the latter leading to the largest decrease in trust. As the Madoff fraud demonstrated, a financial institution's lack of integrity can trigger a collapse in trust (Boyle & Peng, 2025).

Figure 3

Factors that influence trust in banks



Note. From “Trust in Financial Institutions: A survey,” by C. Van Der Crujisen, J. De Haan, and R. Roerink, 2021, *Journal of Economic Surveys*.

The core components of trust in financial institutions are “integrity, transparency, customer orientation, and competence” (Van Esterik-Plasmeijer & Van Raaij, 2017). A 2025 study by Spanò et al. (2025) found that accountability measures within crypto exchanges vary considerably across exchanges, with high variability in the robustness of consumer protection measures, including the implementation of appropriate Know Your Customer (KYC) standards. Spanò et al. (2025) posit that the lack of proactive safeguards and governance by exchanges in an unregulated industry undermines the perceived integrity of these exchanges.

Given the crypto specific context and prior academic research on integrity, it is clear that perceived integrity is fundamental to financial institutions because of its relationship with trust. The crypto industry, for the most part, remains unregulated in many countries globally, where consumers bear the bulk of the risk without sufficient regulatory oversight and scrutiny across many crypto exchanges.

2.3 Trust

Past studies and authors have attempted to define trust, particularly trust in economic exchanges. Fungáčová et al. (2017) define trust, or the presence of trust, as a lubricant that mitigates the complexity of a monetary transaction or exchange more effectively and at a lower cost than formal means. Given crypto exchanges' primary role as financial intermediaries, facilitating the exchange of government-issued money into crypto and the safe custody of investors' funds, trust in the client relationship is imperative.

Van Esterik-Plasmeijer and Van Raaij (2017) define trust simply as the expectation that a counterparty can be relied upon to meet its obligations or fulfil its commitments. Trust in financial institutions can take two forms: “broad-scope trust and narrow-scope trust” (Hansen, 2012). The former is the general expectation that financial institutions can be relied upon to fulfil their general service agreements to clients. In contrast, narrow-scope trust focuses on individual firms within an industry, for example, a financial services provider or a crypto exchange (Hansen, 2012).

In a study of pension and mortgage consumers, Hansen (2012) found that broad- and narrow-scope trust were directly correlated. This finding is important, especially

for regulators and policymakers, since overall trust in the financial services fraternity of an economy leads to increased trust in individual firms, which benefits the economy holistically. Research found a positive relationship between financial literacy and narrow-scope trust in financial institutions (Hansen, 2012). This finding indicates that financial institutions must invest in client education programmes to improve their financial literacy, as these programmes directly increase client trust.

Cryptocurrency exchanges are designated as financial services providers in many countries, including South Africa. Consequently, crypto forms a subset of global financial markets, with signs of spillover effects between crypto and traditional asset classes (Liu et al., 2023). Financial institutions build their brands over decades, even hundreds of years, and from a consumer perspective, there is an expectation that these institutions are reliable and can be trusted to deliver on their mandate and brand promise, which is often positioned on trust factors (Jansen et al., 2014).

A direct correlation exists between the degree of trust and clients' confidence that their interests are well looked after by the financial institution (Van Der Crujisen et al., 2021). In the financial services industry, for example, the banking sector, clients and banks must rely on each other due to the uncertainty of the other party's behaviour, which could be detrimental. Trust is, therefore, a critical component of client-financial institution relationships.

At a macroeconomic and financial stability level, trust in institutions is essential for a stable and functioning monetary system (Van Der Crujisen et al., 2021). The collapse of Silicon Valley Bank in 2023, which held \$209 billion in assets, most of which were as a financial custodian of the assets accumulated by the burgeoning technology sector, stands out in recent history. A gradual, then sudden, drop in confidence sparked a proverbial run on the bank, leaving it unable to honour clients' withdrawal requests (Metrick, 2024). This collapse sent ripples through the US banking system, prompting US financial regulators to step in.

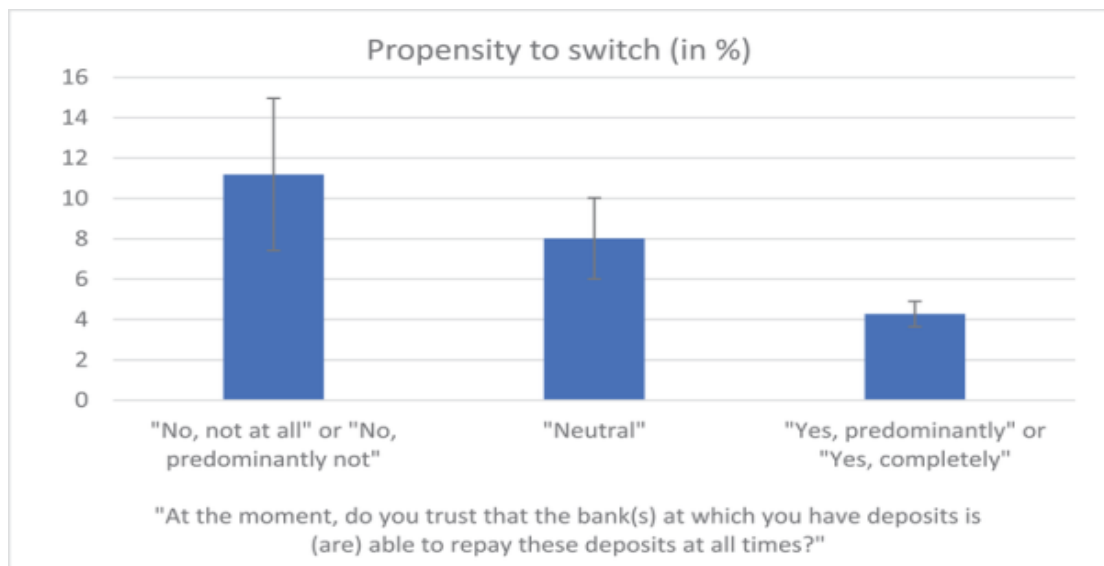
According to Figure 3, service failures, technical errors or outages result in a substantial loss of trust in banks (Van Der Crujisen et al., 2021). This finding is important and indicates that banks, and crypto exchanges, must ensure service

uptime and minimise any unscheduled outages and technical errors to maintain client trust. In October 2025, PayPal, an important stakeholder in the global crypto industry, mistakenly created \$300 trillion in US dollar stablecoins, an amount estimated to be double the size of global gross domestic product (Butts, 2025). Such incidents contribute to distrust in the crypto industry, evidenced by the 2024 Edelman Trust Barometer report.

It is evident and rational to expect a strong correlation between trust and customer retention, as evidenced by recent events such as the failures of Silicon Valley Bank and FTX. At the individual financial institution level, low trust will negatively impact the firm's ability to retain customers and reduce customer loyalty (Van Der Crujisen et al., 2021). Figure 4 illustrates the trust and customer retention risk results of a sample of 2,296 Dutch banking clients. Following a 2025 security breach, customers of the cryptocurrency exchange Bybit withdrew \$5.5 billion in crypto assets from the platform (Rodrigues, 2025). The breach led to a sharp and sudden decline in confidence in Bybit's ability to safeguard customer funds.

Figure 4

Client propensity to switch at different trust levels



Note. This figure shows the customer retention risk for banks when a client-bank trust relationship is absent. From "Trust in Financial Institutions: A survey," by C. Van Der Crujisen, J. De Haan, and R. Roerink, 2021, *Journal of Economic Surveys*.

During critical incidents, such as client service or security-related issues, trust fosters consumer loyalty, making them less likely to switch to another product provider. Consequently, if a customer has a high level of trust in their provider, they may be willing to endure a price increase or pay a premium compared to prices offered elsewhere to some extent in order to maintain a valued and trusted relationship with the provider. (Pandey et al., 2019). The literature suggests that trust is closely associated with an organisation's character, including its ability to meet its obligations to customers, benevolence, and integrity. The absence of ability, benevolence, and integrity increases dissatisfaction and undermines trust (Van Dalen & Henkens, 2018).

High financial exclusion levels in certain countries can be ascribed to the lack of trust the population holds in the local banking system. Moreover, trust might be lower in markets where banks have fewer bank branches and rely more on digital channels. Only once customers trust the bank will they trust innovations such as the bank's digital products and channels (Van Der Crujisen et al., 2021).

Trust varies depending on the nature of products sold or services rendered, as well as the location of the service provider. In Pandey et al. (2019), consumers placed greater trust in foreign e-commerce platforms outside India, which led to increased brand loyalty and greater price tolerance. This phenomenon may be limited to low-trust areas, where consumers perceive that foreign platforms operate to higher standards. This study, however, examined the perceptions of e-commerce clients, not in a financial services context, where a local, on-the-ground presence could increase trust with local consumers compared to foreign firms.

Similarly, stock exchange-listed companies headquartered in low-trust countries, where investors are more conservative or sceptical, experience significantly more muted responses to strong financial performance results announcements (Wei & Zhang, 2022). The location of a financial service provider, such as a crypto exchange, could negatively impact a firm's ability to utilise trust's role as a mediator to achieve a desired result, such as reducing price sensitivity.

The mediating role of trust between integrity or integrity-linked factors such as transparency, fair value, and quality, and customer behaviour outcomes has been

researched in finance and non-finance contexts. However, empirical attention has not been directed to its mediating effect on fee sensitivity, and specifically, the fee sensitivity of crypto investors. Past studies have examined its impact on clients' willingness to pay. In an e-commerce context, Qalati et al. (2021) found that trust serves as a significant mediator in the relationship between service quality and online shoppers' purchase intention. Therefore, improved service quality increases trust in the online platform, thereby increasing clients' intention to complete online transactions with the retailer.

In a study on trust in the public sector, it was found that “trust mediates the relationship between financial transparency and the willingness to pay for government services” (Krah and Mertens, 2023). In assessing the monetisation of the freemium business model, Tyrväinen and Karjaluo (2024) found that trust mediates the relationship between customer experience and price sensitivity to the cost components of a freemium model. These findings highlight the importance of trust in achieving commercial success.

2.4 Brand loyalty

Marketers view brand loyalty as one of the top three branding concepts, used interchangeably with brand equity and brand image, which are considered independent, interdependent, and, most importantly, dynamic (Parris & Guzmán, 2022). The dynamic and changing environment, driven by geopolitical, social, and technological trends, has shifted the practice of marketing, including loyalty, beyond being merely transactional or behavioural (Rust, 2019). Brand loyalty is viewed as attitudinal, involving a deep commitment to repeat transactions with a brand (Fernandes & Moreira, 2019). This, despite the potential future occurrence of factors, such as those listed in Figure 3, that should result in a drop in trust and loyalty.

Consumer brand engagements can foster positive attitudes and increase loyalty. Consumer brand relationships should therefore evolve into loyalty over time (Fernandes & Moreira, 2019). Brand loyalty has evolved beyond mere patronage and now views consumers as “co-owners and co-creators of the brand” (Parris & Guzmán, 2022). This degree of engagement leads to brand loyalty.

In a review of the future of marketing, Rust (2019) posits that to create a customer connection, brands must shift from marketing their products to cultivating customers to increase engagement, generate word of mouth, and foster customer loyalty. Companies derive brand value from the outcomes of brand-consumer relationships, which involve psychological factors such as trust, brand love, customer experience, and brand engagement, all of which can influence consumer switching decisions (Fernandes & Moreira, 2019).

The average person spends 141 minutes per day on social media (Statista, 2025). Communicating brand positioning on social media offers companies an opportunity to showcase their differentiation. Social media marketing positively influences brand loyalty among Bangladeshi banks by fostering trust and brand equity (Hafez, 2021). Given the established link between integrity, trust, and brand loyalty, the company's positioning of its selling points becomes essential. Table 1 shows the brand positioning of prominent South African crypto businesses as of October 2025. It shows how South African crypto exchanges differentiate themselves through brand positioning, and how some, including Luno and VALR, follow a values- or integrity-driven positioning strategy.

Table 1

Brand positioning of South African crypto exchanges

Brand	Core Positioning	Key Message	Loyalty Programme
Luno	Trust, security, simplicity	"A smarter way to invest"	No, referrals based only.
VALR	Integrity, transparency, oneness of humanity	"Pro trading, for everyone"	No, referrals and rebates based only.
Binance	Trust, innovation, and the largest	"Trade on the go. Anywhere, anytime"	Yes, loyalty bonus rewards
AltcoinTrader	Secure, Easy	"Secure, easy crypto trading"	No

Altify	Regulated, secure, alternative investments	"Making alternative investments easy"	Yes, rewards programme for lower fees, priority support
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Note: Compiled by the author from brand websites, social media accounts and media articles, October 2025.

In a Korean study on Pay television clients and Over-the-Top services such as Netflix, brand loyalty was found to significantly affect switching costs, with greater brand loyalty leading to higher perceived switching costs (Kim & Kim, 2023). Therefore, to consider crypto investors switching to other exchanges due to excessively high fees, it is essential to understand the antecedents of a lock-in effect. Kahneman and Tversky's loss aversion theory can explain brand loyalty and switching costs (Kim & Kim, 2023). Loss aversion in this context refers to customers' tendency to avoid the short-term pain of incurring a switching cost, which can be induced by upselling and bundled products that create a lock-in effect (Kim & Kim, 2023).

Banks face the same competitive threats as traditional cable providers, as noted in the study cited in the previous paragraph. Financial services providers, such as banks, faced increased competition from financial technology (fintech), including blockchain firms, which led to the creation of new business models, improved speed, and reduced the cost of providing financial services (Wongsansukcharoen, 2021). Building on the Parris and Guzmán (2022) study referenced earlier, Wongsansukcharoen (2021) also found that consumer engagement, particularly direct customer relationship management through social media, elevates brand loyalty and trust.

In a study on the relationship banking model, Eriksson et al. (2020) found that brand loyalty had a direct effect on non-interest revenue products, provided that clients trusted their bank advisors. For interest revenue products, such as short-term and long-term loans, brand loyalty and trust had no effect. This finding could indicate the existence of a monetary threshold beyond which brand loyalty and trust yield diminishing returns.

In a study on South Africa's banking sector, trust was singled as an antecedent of brand loyalty (Taoana et al., 2021). The quality of client relationships also positively affects brand loyalty, corroborating Eriksson et al. (2020), who noted that a lack of trust in relationships reduces the conversion rate for certain financial products, particularly interest-bearing products. High-quality relationships with clients and customer satisfaction positively affect loyalty, which, in turn, improves firm performance (Yun & Hanson, 2020).

Given that brand loyalty is known to positively affect switching costs (Kim & Kim, 2023), crypto exchanges must understand its antecedents, especially amid increasingly intense industry rivalry. Loyalty programmes are part of the daily lives of most consumers, including those in financial services. However, how satisfied and dissatisfied customers respond to loyalty programmes differs. Satisfied customers prefer delayed rewards, such as loyalty points that accumulate, whilst unsatisfied customers seek immediate rewards, such as spot discounts (Kim et al., 2020). The latter increases loyalty to the loyalty programme itself, but not to the brand. Discount-based loyalty incentives, therefore, reduce the effectiveness of loyalty programmes, leading only to short-term behavioural changes (Kim et al., 2020).

In a systemic review of 30 years of published research on loyalty programmes, Belli et al. (2021) found a negative correlation between customer loyalty and price sensitivity, thereby improving pricing power and firm profitability. Brands offer loyalty programmes to retain their most profitable and loyal customers and to increase switching costs for those customers. The author found that loyalty programmes that require a commitment in the form of an enrolment fee or cost component increase switching costs and brand loyalty, and also positively impact firm revenue by adding a new revenue stream.

In November 2023, EasyEquities, a South Africa-based online share trading platform, introduced its "Thrive" loyalty programme. This programme was available to all clients at no cost; however, inactive clients incurred a R25 monthly fee (*EasyEquities - Thrive*, 2025). In the first 12 months after launch, the number of clients who qualified for Thrive-associated benefits increased by 658% year on

year, indicating the early impact of this loyalty programme on customer activity (Greyling, 2024).

Loyalty programmes are more effective in businesses where consumers do infrequent transactions (Kim et al., 2021). This finding follows the logic that less frequent transactions increase the risk, due to likely higher transaction amounts, and that a loyalty programme reduces the perceived risk for the purchaser by offering a mix of hard and soft rewards (Belli et al., 2021). Hard rewards are economic benefits, such as discounts or loyalty points, whereas soft rewards are psychological benefits, such as exclusivity, special invitations, and preferential treatment. Interestingly, the research found that exclusivity had a positive relationship with brand loyalty; however, special attention had a negative relationship, suggesting that some customers may not value personal attention highly (Belli et al., 2021).

2.5 Fee sensitivity

Scholars define fee sensitivity as the change in an investor's likelihood of proceeding with an investment when a lower investment fee can be obtained elsewhere (Lee et al., 2020). Pandey et al. (2019) reviewed sensitivity from two perspectives: increases and decreases in fee tolerance. The former measures the maximum price increase threshold for retaining a satisfied customer, while the latter measures the minimum price reduction required before a customer might switch to a competitor. Price decrease tolerance is consequently more relevant to this study, which seeks to gain practical insights into the adverse effects of increased rivalry and price wars in the cryptocurrency industry on firm profitability.

In a financial services context, price tolerance indicates the degree to which a buyer is willing to continue to incur a fee before switching to an alternative financial services provider. Yun and Hanson (2020) argue that customer retention has become increasingly complex in price-sensitive industries due to financial services provider optionality and information asymmetry, and that sensitivity increases when customers can ascertain fee information. In this technological age, consumers can easily compare fees, read online company reviews, and switch service providers. Information is readily available to them through a quick internet search, and switching providers has become easier, for example, with online financial services,

without needing to interact with a person or visit a brick-and-mortar branch to facilitate an account closure and switch (Yun & Hanson, 2020).

Pandey et al. (2019) analysed online retail shoppers' price tolerance and the variables that influence their tolerance to pay higher fees. The increased availability of price comparison information has made it more difficult for online retailers to retain their fee-sensitive customers. In a study examining customer retention, nearly a third of respondents cited fees as the primary reason for switching to a new financial services provider (Yun & Hanson, 2020).

The degree to which a financial services provider creates a personalised experience for customers directly influences their fee sensitivity. A personalised experience increases the customer's willingness to pay higher fees than those charged by alternative providers. A personal touch increases customer satisfaction and loyalty, and reduces fee sensitivity in a price-sensitive market. This finding provides valuable insights into brand loyalty as a mediator in the relationship between relationship management and fee sensitivity (Yun & Hanson, 2020).

Customer satisfaction is negatively correlated with fee sensitivity (Temerak, 2016). In its study on financial brokers in Egypt, Temerak (2016) determined that customer satisfaction partially mediates the relationship between the alternative financial broker options available to clients and clients' price tolerance. When customer satisfaction is high, customers may perceive fee increases as justified, whereas dissatisfied customers may resist price increases and switch to an alternative financial broker.

Investors continuously assess their consumer surplus, and changes in prices or fees can alter their perceptions of fair value and brand loyalty (Temerak, 2016). Moreover, pricing or fee changes can be a catalyst for switching decisions. Switching barriers can create artificial loyalty, defined bluntly as repeat purchase, meaning they "have to stay". Therefore, it is realistic for new crypto exchanges entering the market to leverage pricing to drive investor switching decisions.

Trust and loyalty are two antecedents of fee sensitivity in specific contexts, particularly in e-commerce, as Pandey et al. (2019) found among Indian

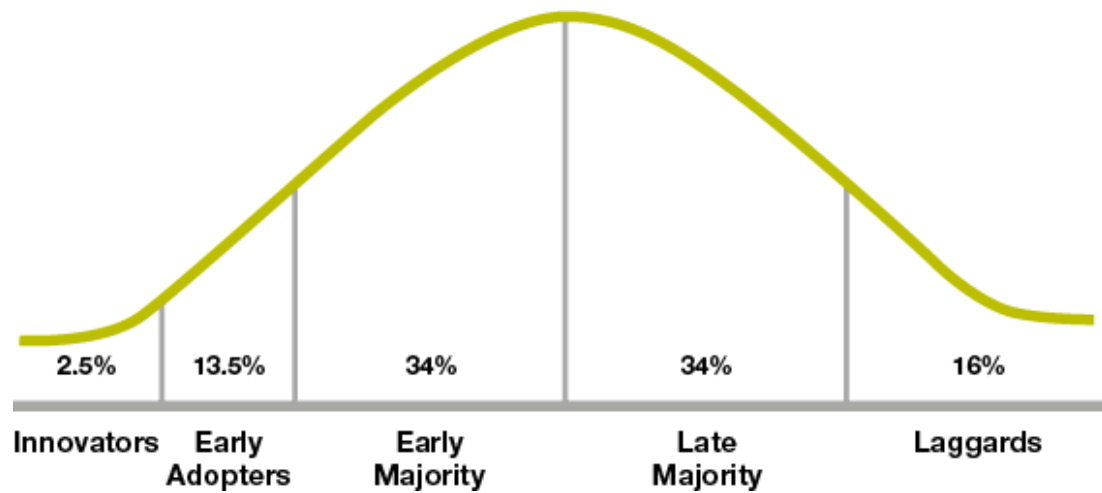
consumers. A significant positive relationship exists between trust, loyalty, and price tolerance, with consumers being more price tolerant of foreign online retailers than Indian-based ones, due to their belief in higher standards. However, Pandey et al. (2019) found that trust varies across product categories, with a weaker relationship between trust and price tolerance for non-electronic goods.

Brand loyalty forms as satisfied clients engage in repeat purchases with the same brand, and reduce price sensitivity. Furthermore, in their systematic review, Abdullah-Al-Mamun & Robel (2014) found that loyal customers make their purchase decisions earlier than planned. In contrast, disloyal customers switch brands in search of promotional pricing. In their study on car insurance customers, Dominique-Ferreira et al. (2016) found a negative correlation between loyalty and fee sensitivity. This finding implies that customers loyal to a brand become less sensitive to price changes. This finding indicates that although loyal clients may be less sensitive, they still prioritise price. Crypto exchanges act as intermediaries, facilitating the conversion of fiat currency into crypto. A study by Giovanis and Athanasopoulou (2017) among internet service provider clients found that brand loyalty and price sensitivity are negatively correlated in a technology services context; however, trust had no direct effect on consumer price tolerance.

The adoption curve of new products and technologies, illustrated in Figure 5, provides insights into the price sensitivity of different customer cohorts. The first 2.5% of users are referred to as the innovators and have been shown to exhibit a negative correlation with price sensitivity (Dominique-Ferreira et al., 2016). Innovators are the earliest users of a product or service and tend to be more knowledgeable about it and influence the buying decisions of later adopters (Abdullah-Al-Mamun & Robel, 2014). The exact mapping of the crypto investors on the industry adoption curve is debatable; however, it could be regarded as being in the innovator, early adopter or early majority phases, which could, based on the aforementioned research cited, indicate that crypto investors may be less sensitive to fees than believed to be the case by crypto exchanges.

Figure 5

Product adoption curve



Note. This model shows how the adoption of a new product or technology spreads over time. Innovators and early adopters are less price-sensitive. From “Art of change making”, by Adoption Curves.

National culture also affects price sensitivity. Power distance belief, the cultural dimension that emphasises hierarchy and power inequality in society, impacts consumer price sensitivity (Lee et al., 2020). A negative relationship exists between high-power-distance belief and individuals' degree of price sensitivity (Lee et al., 2020). This insight explains that in high power distance cultures, individuals have a need for closure, which might result in a faster conclusion of a transaction rather than seeking lower-cost alternatives. Therefore, crypto investors in high-power-distance countries ought to be less sensitive to fees.

In a study of Islamic bank customers, Ireland (2018) found that banking clients are less loyal when it comes to interest rates. Up to 44% would “switch to a conventional bank if the interest rate offer were 1% higher” than that of the Islamic bank, and 62% would switch if the rate differential increased to 2% (Ireland, 2018). The remaining 38% of respondents would remain loyal, even at a 2% rate differential (Ireland, 2018). This finding implies that Islamic banks hold some brand loyalty, with 38% of clients envisaging they would remain with the bank; however,

loyalty thresholds exist beyond which clients will switch to a bank offering a more competitive interest rate.

Price may not be the only factor in switching decisions. However, there is a threshold beyond which companies cannot operate. This threshold depends on factors that increase or decrease this margin of safety, or buffer. Based on this literature review, the researcher found no studies that identify the variables influencing the fee tolerance levels of individual cryptocurrency investors.

2.6 Theoretical foundation and justification

This study is grounded in Trust Theory, which posits that an organisation's "ability, benevolence, and integrity are the three sub-domains of trust" that help organisations, particularly service businesses, build a foundation of trust (Mayer et al., 1995). Trust is viewed as the single key success factor for customer retention and acquisition and plays a vital role in gaining a competitive advantage in industries with intense rivalry (Isaeva et al., 2020). Trust, therefore, is a highly relevant psychological factor for this study, which seeks to address a growing risk for crypto exchanges: protecting individual firms' profitability in an increasingly competitive cryptocurrency market.

Mayer et al. (1995) regard perceived integrity as a key antecedent of trust and one of three trustworthiness dimensions of service businesses (Mayer et al., 1995). Integrity is a significant source of trust, and the behaviour of crypto exchange directors, management and sales staff is deemed a critical demonstration of integrity (Isaeva et al., 2020). The largely unregulated nature of the crypto industry, along with recent crypto exchange liquidations and security incidents, positions integrity as a theoretically and practically relevant construct for this study. Therefore, perceived integrity was selected as the independent variable for this study, as there is no academic clarity regarding its relationship with fee sensitivity in the crypto industry.

Trust contributes to improved perceptions of value, including price tolerance and brand loyalty, both of which are attitudinal outcomes of trust (Isaeva et al., 2020). Trust theory provides a valuable framework for examining the relationship and

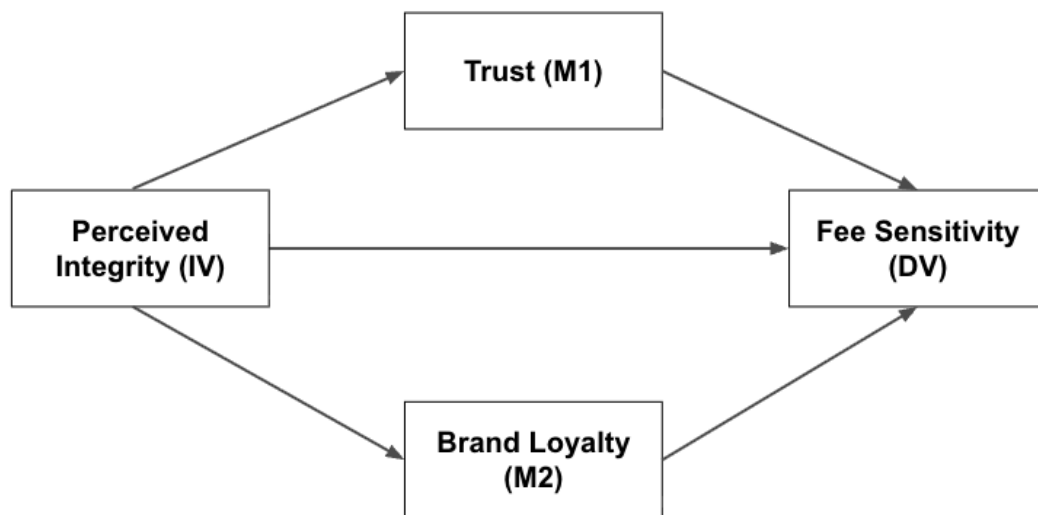
correlation between perceived integrity and fee sensitivity, as well as the effects of mediating variables, trust and brand loyalty.

2.7 Conceptual model

The conceptual model depicted in Figure 6 illustrates the relationships among perceived integrity and fee sensitivity, with trust and brand loyalty as mediators. The researcher developed the framework and drew on Trust Theory.

Figure 6

Conceptual model



Note. Author's own creation.

2.8 Conclusion

Price-sensitivity authors, such as Yun and Hanson (2020) and Pandey et al. (2019), highlight the challenge of customer retention in competitive industries due to information asymmetry and demonstrate the link between psychological factors, trust, and loyalty and price sensitivity. Though these studies are from an e-commerce context, they provide a good foundation for adapting to a services context, such as the cryptocurrency exchange operating model.

Trust authors in a financial services context, such as Van Der Crujisen et al. (2021) and Jansen et al. (2014), research the psychological triggers that contribute to

people losing trust in their banks and customer retention. Isaeva et al. (2020) identified integrity, benevolence, and companies' ability as core antecedents of trust, which influence clients' perceptions of value and may correlate with price or fee sensitivity.

This conceptual model builds on prior findings in fields such as e-commerce and traditional finance. The researcher could not identify any studies examining how these factors influence investor fee sensitivity in the emerging cryptocurrency trading industry. There is a paucity of research on the psychological factors that affect consumer behaviour in crypto, with the majority of the literature focusing on market manipulation, risk, and the spillover effects of crypto markets on traditional markets.

The next chapter presents the overarching research question and the hypotheses derived from the conceptual framework. Based on the reviewed literature, it is proposed that perceived integrity negatively influences fee sensitivity; that is, higher perceived integrity is associated with lower fee sensitivity, with trust and brand loyalty as mediators, explaining part of this relationship.

CHAPTER 3: RESEARCH QUESTION AND HYPOTHESES

3.1 Research question

How does perceived integrity influence the fee sensitivity of crypto investors, and what roles do trust and brand loyalty play in mediating this relationship?

This research question explores the relationship between the antecedents of price sensitivity among crypto investors. Crypto exchanges build the infrastructure for a new class of financial assets, cryptocurrencies. Unfortunately, due to a lack of understanding of the factors that influence crypto investors' fee sensitivity, exchanges fail to maximise profitability through optimal pricing. An awareness of these factors can help an organisation identify the tipping point (Pandey et al., 2019), the maximum percentage increase before investors switch to another crypto exchange.

Trust is a key pillar of any economic relationship between investors and financial service providers (Van Der Cruisen et al., 2021), and commercial bank liquidations such as Saambou Bank (2006) and Silicon Valley Bank (2023) serve as evidence that the lack of trust has detrimental effects on the sustainability of financial services businesses. Furthermore, relationships among psychological factors such as integrity, trust, and brand loyalty affect an organisation's ability to retain its customers (Van Der Cruisen et al., 2021). Combining these non-financial factors for business sustainability with financial decisions, such as pricing, could provide crypto exchanges with the insights needed to compete in a highly competitive market.

3.2 Hypotheses

Building on the theoretical framework and prior empirical studies, the hypotheses listed in Table 2 are proposed to test the expected relationships among the study's constructs. Each hypothesis reflects the alternative assumption that a significant association exists between the variables, while the null hypothesis (that no relationship exists) states the inverse.

Table 2:*Research hypotheses*

H1₀	There is no significant relationship between Perceived Integrity and Fee Sensitivity.
H1_{Alt}	There is a significant negative relationship between Perceived Integrity and Fee Sensitivity.
H2₀	There is no significant relationship between Perceived Integrity and Trust.
H2_{Alt}	There is a significant positive relationship between Perceived Integrity and Trust.
H3₀	There is no significant relationship between Trust and Fee Sensitivity.
H3_{Alt}	There is a significant negative relationship between Trust and Fee Sensitivity.
H4₀	There is no significant relationship between Perceived Integrity and Brand Loyalty.
H4_{Alt}	There is a significant positive relationship between Perceived Integrity and Brand Loyalty.
H5₀	There is no significant relationship between Brand Loyalty and Fee Sensitivity.
H5_{Alt}	There is a significant negative relationship between Brand Loyalty and Fee Sensitivity.
H6₀	The indirect effect of Perceived Integrity on Fee Sensitivity via Trust is not significant.
H6_{Alt}	Trust mediates the relationship between Perceived Integrity and Fee Sensitivity, such that differences in Trust associated with Perceived Integrity explain differences in Fee Sensitivity.
H7₀	The indirect effect of Perceived Integrity on Fee Sensitivity via Brand Loyalty is not significant.

H7_{Alt}	Brand loyalty mediates the relationship between Perceived Integrity and Fee Sensitivity, such that differences in Brand Loyalty associated with Perceived Integrity explain differences in Fee Sensitivity.
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Note. Author's own compilation.

CHAPTER 4: METHODOLOGY

4.1 Introduction

The chapter details and defends the methodological design of this study, and explains how the research was conducted to ensure the results of hypothesis testing are valid and reliable. The researcher utilised the research onion, a roadmap of the research process, to ensure all steps were followed sequentially (Saunders & Lewis, 2018).

Figure 7

Outline of research methodology chapter

Main Headings	4.1 Research Design	4.2 Data Collection	4.3 Data Analysis approach	4.4 Quality Controls	4.5 Limitations
Sub Headings	4.1.1 Philosophy and approach	4.2.1 Population	4.3.1 Cleaning and coding	4.4.1 Validity	
	4.1.2 Methodological choice	4.2.2 Unit of analysis	4.3.2 Regression tests	4.4.2 Reliability	
	4.1.3 Purpose of research design	4.2.3 Sampling size and method		4.4.3 Normality	
	4.1.4 Time horizon	4.2.4 Measurement instrument			
		4.2.5 Data gathering process			
		4.2.6 Pilot Study			

4.2 Research Design

4.2.1 Philosophy and approach

This research study adopted a positivist research philosophy. Positivism seeks to discover relationships between constructs through the analysis of quantifiable data

(Saunders & Lewis, 2018). Using existing theory, this study aimed to determine and quantify the relationships between four variables: Perceived Integrity, Trust, Brand Loyalty and Fee Sensitivity. The findings of this study have practical applications for cryptocurrency exchanges and can be developed and expanded on for future research.

A deductive approach was employed in this study for theory development. Quantitative research is closely associated with a deductive approach, which enables the testing of specific hypotheses developed from existing theory and produces findings that can supplement or extend the theory (Saunders & Lewis, 2018).

4.2.2 Methodological choice

A quantitative mono method research design was most appropriate for this study, as it enabled the objective measurement of multiple research constructs and the statistical analysis of relationships between independent and dependent constructs, mirroring the design of Van Der Crujisen et al. (2021) in their study on trust in Dutch financial institutions. A quantitative approach was also most suitable for the research, given the nature of the constructs and relationships under review. To accept or reject each hypothesis stated in Chapter 3, the researcher required primary data from a large sample, which provided a more current and relevant understanding of crypto investors' perceptions of integrity, trust, brand loyalty, and fee sensitivity toward their primary crypto exchange. The perceptions of individual crypto investors could not be researched for the specific constructs under review from secondary data sources. In their study on psychological factors, such as trust and loyalty, and their effects on price tolerance, Pandey et al. (2019) adopted a mono-method research design and collected primary data.

4.2.3 Purpose of research design

The purpose of this research study was first to determine the direction and strength of the relationships among the latent variables, perceived integrity, trust, and brand loyalty, and the fee sensitivity of crypto investors, as measured using a statistically calculated correlation coefficient. As a result, the research design was correlational. Correlational research is a type of research that measures and analyses the

direction and strength of the relationship between two or more variables. The nature of the relationship describes whether variables are positively, negatively, or not correlated (Stewart, 2025). In a similar study, Van Der Crujsen et al. (2021) conducted a correlational analysis on the determinants of trust in financial institutions.

4.2.4 Time horizon

A cross-sectional study was conducted as the purpose of the research was to understand the nature of the relationships between constructs, and not the influence of time on these relationships. The study involved the collection of data from survey participants over the course of one month only. The rationale behind a cross-sectional design was primarily due to the researcher not testing changes in perceptions over time, including the feasibility of a cross sectional design from a time perspective (Saunders & Lewis, 2018). Furthermore, due to the nascent nature of the cryptocurrency industry, it is reasonable to expect investor perceptions and behaviour to shift as the industry matures. A snapshot view could therefore provide a good foundation for a future longitudinal study, as the industry matures and crypto investors' price sensitivity changes over time.

4.3 Data Collection

4.3.1 Population

The research aimed to understand the relationships among perceived integrity, trust, brand loyalty, and fee sensitivity among consumers. To effectively measure these perceptions, the population was defined as individual cryptocurrency investors aged 18 or older who had conducted at least one cryptocurrency transaction in the past 24 months. Cryptocurrency ownership is estimated at around 560 million people globally, which would encompass the overall population, barring the age and transactional characteristics of this study (*Cryptocurrency Ownership Data – Triple-A*, 2024). This criterion aimed to enhance the investor's ability to recall their most recent experience with a cryptocurrency exchange as it pertains to the survey items.

4.3.2 Unit of Analysis

The unit of analysis for this research was determined as an individual cryptocurrency investor. Individuals, and not businesses, account for the majority of existing and new cryptocurrency investment activity (Team, 2025). Furthermore, the willingness to pay fees, i.e., fee sensitivity, is an individual-level decision and should be analysed and measured accordingly. Van Dalen and Henkens (2018) also used individuals, specifically pension participants, to measure the determinants of trust in pension funds.

4.3.3 Sampling method and size

This study used non-probability sampling. Non-probability sampling states that the population, in this case, individual crypto investors, has an unknown chance of being selected to participate in this survey, with some having zero probability of being included in the sample (Vehovar et al., 2016). Due to the large, global population of crypto investors and the lack of accessible, identifiable lists of crypto investors to target, the study employed non-probability sampling. This study used two sampling techniques: snowball and network sampling, with snowball sampling as a subcategory of network sampling.

4.3.3.1 Snowball sampling

Crypto investors remain a niche market, unlike, for example, surveying respondents with bank accounts. Therefore, the researcher expected it would be more challenging to identify potential respondents who met the criteria specified in the population section. As a result, the researcher utilised their networks, including professional, business school, social, and crypto industry-specific stakeholders, to complete and further distribute the survey.

4.3.3.2 Convenience sampling

The cryptocurrency community on LinkedIn is diverse. It includes financial auditors and cybersecurity professionals, as well as financial advisors, asset managers, and financial regulators who hold an interest in the industry. Furthermore, given the diverse backgrounds of crypto stakeholders on LinkedIn, the researcher chose this

method to mitigate biases in crypto exchanges and other investments held by respondents.

In their study on fee tolerance among e-commerce platform customers, Pandey et al. (2019) conducted a convenience sampling survey. Similarly, a study of banking clients in Vietnam by Xuan et al. (2023) employed non-probability sampling techniques, including convenience sampling through social media, to analyse the determinants of brand loyalty, trust, and brand engagement in a banking setting.

4.3.3.3 Sample size

A G*Power calculation, as shown in Appendix B, was used to determine the minimum sample size, which was calculated as a minimum sample of 114 participants. A G*Power test is best practice for determining a sample size that could lead to potentially significant relationships between constructs (Faul et al., 2009). The researcher conducted an a priori analysis using G*Power at 80% power, including nine predictors: the four research constructs and five control variables. The study targeted 200 respondents, the minimum sample size required to apply Structural Equation Modelling ("SEM"). The final dataset comprised 116 valid responses, as shown in Table 7.

4.3.4 Measurement instrument

Primary data were collected for this study through a survey, with a questionnaire as the instrument. A questionnaire is a data collection method in which each respondent completes the same set of questions in the same order and can be distributed via various media, including the internet (Saunders & Lewis, 2018).

A questionnaire was well-suited, given the large, global population of crypto investors. A questionnaire was used to address scalability due to time constraints in completing this research, and it was administered over one month in August 2025.

The questionnaire consisted of three types of questions: category, list, and ranking questions (Saunders & Lewis, 2018). Firstly, it included a yes-or-no question on the qualifying criteria, which required respondents to select "Yes" or "No" to the question about transacting in the past 24 months. Furthermore, respondent

demographics were captured using list questions. Finally, rating questions were used to assess the respondents' perceptions of the four research constructs and latent variables: perceived integrity, trust, brand loyalty, and fee sensitivity.

4.3.4.1 Perceived Integrity scale

The independent variable, perceived integrity, was measured using a measurement scale adapted from Van Esterik-Plasmeijer and Van Raaij (2017), who conducted the research in a banking and traditional financial services context among 1,079 Dutch respondents who rated their primary bank. Refer to Table 3 for a comparison of original and adapted scale items. Four items grouped into the perceived integrity construct had a Cronbach's alpha of 0.860. Van Esterik-Plasmeijer and Van Raaij (2017) deemed a Cronbach's alpha greater than 0.790 as satisfactory. The researcher used a seven-point Likert scale to measure perceived integrity, adapted from the original five-point scale to accommodate greater data variability.

Table 3

Comparison of original and adapted Trust scale items

Original scale items	Adapted scale items
Bank X does not stay away when clients have problems	My primary cryptocurrency exchange does not ignore when clients have problems
Bank X treats clients in a fair manner	My primary cryptocurrency exchange treats clients fairly
Bank X abides by the law and regulations	My primary cryptocurrency exchange absides by the law and regulations
Bank X has integrity	My primary cryptocurrency exchange has integrity

Note. Original scale items adapted from “Banking system trust, bank trust, and bank loyalty,” by P. W. Van Esterik-Plasmeijer and W. F. Van Raaij, 2017, *International Journal of Bank Marketing*.

4.3.4.2 Trust scale

The first mediator, trust, was measured using a scale adapted from Kulal et al. (2024), who developed, among others, a trust and security scale to measure the adoption of cryptocurrencies. The survey, conducted in China over three months, included 600 cryptocurrency investors, and the Trust items achieved a Cronbach's alpha of 0.91. The researchers deemed a value above 0.70 acceptable and above 0.80 a high degree of internal consistency. This research study used the same population as Kulal et al. (2024) and, consequently, adopted the trust scale without adjustment.

4.3.4.3 Brand Loyalty scale

The second mediator, brand loyalty, was measured using a measurement scale adapted from Xuan et al. (2023), who developed a brand loyalty scale for a study among banking clients in Vietnam. Refer to Table 4 for a comparison of original and adapted scale items. The survey received 1,547 submissions from banking clients across three Vietnamese cities. The items measuring brand loyalty achieved a Cronbach's alpha of 0.707. The researchers deemed values above 0.70 to be valid. The original five-point Likert scale was expanded to a seven-point scale for this study to accommodate greater response variability.

Table 4

Comparison of original and adapted Brand Loyalty scale items

Original scale items	Adapted scale items
I say positive things about this bank to other people	I say positive things about my primary cryptocurrency exchange to other people
I recommend this bank to others	I recommend this cryptocurrency exchange to others who seek advice
I encourage friends and family to do business with this bank	I encourage friends and family to invest in crypto through this cryptocurrency exchange
I consider this bank my first choice to avail banking services	I consider this cryptocurrency exchange my first choice for cryptocurrency investment-related services

I will do more business with this bank in the future	Next time I invest in cryptocurrency, I will use this cryptocurrency exchange
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Note. Original scale items adapted from “Omnichannel retailing with brand engagement, trust and loyalty in banking: the moderating role of personal innovativeness,” by Q. T. Xuan, H. T. Truong and T. V. Quang, 2023, *International Journal of Bank Marketing*.

4.3.4.4 Fee Sensitivity scale

The fee sensitivity of crypto investors was assessed using an adapted version of the price sensitivity measurement scale from Wakefield and Inman (2003). Refer to Table 5 for a comparison of original and adapted scale items. In its study on situational price sensitivity in an FMCG context, the researchers collected 251 complete survey responses. The items measuring price sensitivity achieved a Cronbach's Alpha of 0.870.

Table 5

Comparison of original and adapted Fee Sensitivity scale items

Original scale items	Adapted scale items
I am willing to make an extra effort to find a low price for product X.	I am willing to make an extra effort to find a cryptocurrency exchange with lower fees
I will change what I had planned to buy in order to take advantage of a lower price for product X.	I will change what I had planned to buy in order to take advantage of a lower fee offered on another cryptocurrency exchange.
I am sensitive to differences in prices of products X.	I am sensitive to differences in fees between exchanges.
	Even small differences in exchange fees matter to me.

Note. Original scale items adapted from “Situational price sensitivity: the role of consumption occasion, social context and income,” by K. L. Wakefield and J. Inman, 2003, *Journal of Retailing*.

4.3.5 Data gathering process

The research's respondents were individual crypto investors who transacted at least once in the 24 months prior to completing the survey and were 18 years or older. The author could not prevent respondents who did not meet this criterion from completing the survey; however, the inclusion of two qualifying questions ensured that they were removed from the final sample prepared for data analysis.

A questionnaire was created using Google Forms, an online platform that enables custom online surveys. The researcher selected Google Forms due to its seamless integration with Google Suite, which the researcher had access to through GIBS. Google Forms seamlessly exports raw data to Google Sheets for data coding. Response progress was automatically recorded and manually tracked in a Google Sheet.

The researcher avoided text-heavy questions to minimise cognitive load on respondents and ensured the survey was easily readable and accessible on mobile devices. The survey was intentionally kept brief and concise, with a target completion time of between three and five minutes.

The survey was published on August 1, 2025, and was first distributed via the researcher's LinkedIn and Facebook profiles. Appendix D contain the copy of the social media prompts to the population to complete the survey. The request to complete the survey included the required confidentiality and anonymity disclosures and provided an expected completion time to reduce perceived effort among the population. These two social media platforms were the primary distribution channels for snowball sampling.

The researcher utilised a combination of convenience and snowball sampling, prompting work colleagues in South Africa, Nigeria, Kenya, Malaysia and Indonesia to complete the survey. The colleagues were contacted through Slack, an corporate communication platform, and the message included a summary of the research's business relevance and academic importance to maintain professionalism in the workplace. Slack was suitable and convenient for distributing the survey to work colleagues, as it is the default communication platform the researcher uses daily to

communicate with colleagues, ensuring a professional tone of voice since the researcher's employer administers the platform.

Finally, the researcher shared the survey link with friends, family and the researcher directly through WhatsApp. The survey was closed on September 2, 2025, after surpassing the minimum required sample size of 114 respondents.

4.3.6 Pilot Study

The survey was pre-tested with five participants to ensure the flow of questions was logical and easy to understand, free of grammatical errors, and that respondents could technically submit the form (Saunders & Lewis, 2018). Additionally, to enhance response rates, the pilot study examined survey completion time. Due to the expected difficulty in finding participants who meet the sample criteria, the researcher capped the pilot at five participants and did not want to waste additional survey responses, given the niche nature of crypto as an everyday investment.

Due to the limited number of responses, it was not feasible to analyse the internal consistency of the construct statements; however, selecting existing scales with high Cronbach's alpha mitigated this risk. Finally, no pilot participants reported uncertainty and spent, on average, four minutes to complete the survey. Consequently, the survey remained unchanged.

4.4 Data analysis approach

4.4.1 Cleaning and coding

The data collected for the four latent variables were coded in Excel (Table 6), using a seven-point Likert scale as described in detail in the measurement instrument section of the methodology. A seven instead of five-point Likert scale was used for this study to accommodate greater response variability.

Table 6*Coding of seven-point Likert scale for each construct*

Code	Descriptor
1	Strongly disagree
2	Disagree
3	Somewhat disagree
4	Neutral
5	Somewhat agree
6	Agree
7	Strongly agree

Note. Author's own compilation.

4.4.2 Regression tests

Data were analysed using the Statistical Package for Social Sciences (SPSS) due to its accessibility and user friendly nature. For hypotheses one to five, a simple regression analysis was conducted as a bivariate test to assess the direction and significance of the relationships between the independent and dependent variables for each hypothesis. Bivariate analysis entails the simultaneous analysis of two variables to “determine the empirical relationship between them” (Wright, 2002). In their study of price sensitivity, Wakefield and Inman (2003) tested their hypotheses using simple regression analysis to examine the relationships among the independent variables, namely, income, category, and the interaction term, with price sensitivity as the dependent variable. As discussed in Chapter 4, responses were measured using Likert scales, and the composite scores for each construct were treated as interval data, allowing regression analysis.

Testing H6 and H7, the tests for mediation, involved hierarchical simple regression. The objective of the mediation analysis was to test whether trust (H6) and brand loyalty (H7) partially or fully explain the relationship between perceived integrity and fee sensitivity.

In their study on bank trust and loyalty, Van Esterik-Plasmeijer and Van Raaij (2017) used SEM to assess the positive and/or negative effects of the mediating variables. The researcher initially planned to use Structural Equation Modelling

(“SEM”) to determine the strongest path between perceived integrity and fee sensitivity, but failed to reach the minimum required sample size of 200 to use the SEM in SPSS. Refer to Table 7 in the Results chapter for a breakdown of the final sample size.

4.5 Quality controls

Before circulation to a broader population, the researcher tested the survey with a small group of respondents to ensure clarity and address any existing issues. The survey started with short, straightforward questions and gradually progressed to increase the completion rate. Lastly, despite the survey methods introducing a degree of bias, the researcher ensured respondents' anonymity and the confidentiality of their responses. Although the study adopted survey scales from existing academic journals, the researcher ensured the questions were easy to understand for the intended population, cryptocurrency investors.

4.5.1 Validity

Construct validity refers to the accuracy with which survey statements measure the actual underlying construct (Ruel, 2019). Construct validity is important because survey statements must accurately represent the constructs to which they belong. To increase construct validity, the researcher adopted survey scales from top-rated academic journals, as detailed in section 4.4.2 (Saunders & Lewis, 2018). However, since scales were adapted, Exploratory Factor Analysis (“EFA”) was used to assess construct validity.

A Kaiser-Meyer-Olkin (“KMO”) test determined the appropriateness of the data for factor analysis. KMO tests for sampling adequacy and determines whether a sufficiently large sample size has been achieved to measure each construct. A KMO value of 0.50 is deemed the minimum requirement to proceed with factor analysis (Li et al., 2020).

4.5.2 Reliability

Internal consistency of a scale describes the extent to which all survey items measure the same construct (Tavakol & Dennick, 2011). To ensure the survey

scales generate trustworthy results, the researcher selected scales with Cronbach's alpha of 0.70 or greater from previous, highly rated academic journals (Bonett & Wright, 2014). Refer to Table 26 for the Cronbach alpha scores for each of the scales selected per construct. The researcher assessed the reliability of the adapted questions using Cronbach's alpha in SPSS to ensure the measurement instrument was reliable. Refer to Chapter 5 for detailed findings on reliability.

4.5.3 Normality

Statistical tests, such as the regression analysis used in this study, assume a normal distribution of data. This study assessed normality using the Skewness and Kurtosis tests. In a normal distribution, the mean, mode and median are approximately in the same range, and should contain no significant outliers (Hatem et al., 2022). A Skewness and Kurtosis range of -2 and +2 is deemed generally acceptable, and was used to assess normality of the results reported in Chapter 5 (*How to Interpret Excess Kurtosis and Skewness*, 2022).

4.6 Limitations

1. The cryptocurrency industry is new and fast-moving, and investor profiles continue to evolve as crypto adoption increases. Investor sensitivity to fees may change in the future, for example, when volatility subsides and asset gains begin to decline. A longitudinal study may provide more accurate data on the determinants of trust and its relationship with fee sensitivity.
2. The use of snowball sampling may introduce selection bias, as survey participants typically share the survey with other respondents who share similar characteristics and investment behaviours. Qualifying questions ensure that all respondents belong to the population, individual crypto investors; however, the researcher cannot generalise the results to the entire population, estimated at 559 million crypto holders globally (Singh, 2025).
3. Some respondents may be exposed to self-interest bias. For example, crypto exchanges likely offer employees preferential fees, which may influence responses from participants who enjoy such perks. The researcher

was employed by a crypto exchange at the time of the study.

4. The study relies on respondents' ability to recall their prior experiences with crypto exchanges. The survey aims to reduce recall bias by including a qualifying question that excludes from the final sample investors who have had no transactions in the past 2 years.
5. Whilst this research investigates the relationship between three psychological factors and fee sensitivity, the list of factors that might reduce fee sensitivity is not exhaustive. Factors other than perceived integrity, trust and brand loyalty may also influence investor sensitivity towards fees.
6. Trust in one's primary cryptocurrency exchange may be higher or lower than trust in cryptocurrency exchanges in general (Van Der Cruisen et al., 2021). The author attempted to focus the respondent's attention on their primary cryptocurrency exchange.

CHAPTER 5: RESULTS

Figure 8

Outline of results chapter

Main Headings	5.1 Introduction					
	5.2 Sample description	5.3 Preliminary analysis	5.4 Normality results	5.5 Regression results	5.6 Testing for mediation	5.7 Conceptual model results
Sub Headings		5.3.1 Perceived Integrity - Validity - Reliability		5.5.1 Hypothesis 1	5.6.1 Hypothesis 4	
		5.3.2 Trust - Validity - Reliability		5.5.2 Hypothesis 2	5.6.2 Hypothesis 5	
		5.3.3 Brand loyalty - Validity - Reliability		5.5.3 Hypothesis 3		
		5.3.4 Fee sensitivity - Validity - Reliability				

5.1 Introduction

The survey was published on August 1, 2025, and remained open for a month until September 2, when it was closed to new responses. The survey data was collected using Google Forms, and the raw data were exported to a Google Sheet. Approximately 300 people received the survey link, with 121 completing it, yielding a 40% completion rate. Of the 121 completed responses, one failed the age limit. A further four respondents had not invested at least once in the past two years. Both these factors, age and transactional activity over the last two years, were qualifying questions to improve the quality of the data. Thus, a total of 116 responses were deemed valid and served as the basis for the preliminary analysis and hypothesis testing.

Table 7*Final sample size for data analysis*

Sample size	
Raw data	121
Less: Respondents with no transactions < two years	(4)
Less: Respondents under 18 years of age	(1)
Sample before tests for Reliability, Validity, Normality	116
Less: Outliers	(3)
Final sample size for regression analysis	113

Note. Author's own compilation.**5.2 Sample description**

Of the 116 valid responses, 55% were from individuals in the 35-44 years age bracket, followed by those in the 25-34 year age bracket with 31.9% of respondents. In total, 91.4% of all respondents were 44 years or younger. Regarding gender, 84.5% of respondents were male. Among respondents, 56% held a postgraduate degree. These sample demographics are listed in Table 8.

The number of respondents with one, two, or three or more active accounts with cryptocurrency exchange providers was roughly equally split, with approximately 33% for each option. Almost half of the respondents (49.1%) have held an account with a cryptocurrency exchange for more than 5 years. The majority of respondents (76%) have held an account for 3 years or longer. Finally, the majority of respondents transact a few times a year (38.8%) or at least once per month (26.7%).

Table 8*Sample demographics*

Characteristics	Sample = 116
Gender	
Male	98 (84.5%)
Female	18 (15.5%)
Age	
18–24	5 (4.3%)
25–34	37 (31.0%)
35–44	64 (55.2%)
45–54	7 (6.0%)
55–64	3 (2.6%)
Education	
Matric	6 (5.2%)
Diploma	12 (10.3%)
Undergraduate degree	29 (25.0%)
Postgraduate degree (including Masters level)	66 (56.9)
Doctoral degree	3 (2.6%)
Number of crypto accounts	
One	39 (33.6%)
Two	37 (31.9%)
Three or more	40 (34.5%)
Years in crypto	
Less than 1 year	9 (7.8%)
Between 1 and 3 years	18 (15.5%)
Between 3 and 5 years	32 (27.6%)
More than 5 years	57 (49.1%)
Investment frequency	

Daily	6 (5.2%)
Several times a week	7 (6.0%)
Once a week	6 (5.2%)
Several times a month	12 (10.3%)
Once a month	31 (26.7%)
A few times a year	45 (38.8%)
Once every few years	9 (7.8%)

Note. Author's own compilation.

Table 9 below summarises the descriptive statistics of the four constructs in this research study. It includes a summary of the mean, median, and standard deviation for each construct. Notably, the mean scores for perceived integrity, trust, and brand loyalty lie in the fourth quartile (above 75%), with a midpoint of 3.5 on a 7-point Likert scale. This indicates that respondents have positive perceptions of their primary crypto exchanges across all independent variables. Considering that 49.1% of respondents have held crypto accounts for more than 5 years, it is not surprising to observe low variability in responses, with standard deviations below the typical 1.58 for 7-point Likert scales (Sauro & Lewis, 2023). Although the fee sensitivity standard deviation score is slightly higher, it still indicates low to moderate variability in responses.

Table 9

Descriptive statistics (N=116)

Constructs	Mean	Median	Standard deviation
Perceived Integrity	6.0155	6	0.85192
Trust	5.8619	6	0.98673
Brand Loyalty	5.8956	6	1.04441
Fee Sensitivity	4.4668	4.5	1.59886

Note. Descriptive statistics of each construct. Author's own compilation, from SPSS descriptives table.

5.3 Preliminary analysis

Preliminary analysis was conducted using tests for validity, reliability and normality.

5.3.1 Perceived Integrity

5.3.1.1 Validity Results

The first validity test aimed to determine whether the data were suitable for an exploratory factor analysis (EFA). The first construct, perceived integrity, achieved a Kaiser-Meyer-Olkin (KMO) score of 0.718 (Table 10), which exceeds the minimum requirement of 0.50. This proves sampling adequacy and indicates construct validity of the perceived integrity survey scale. It indicates that the data is suitable for exploratory factor analysis.

Table 10

Data appropriateness (Perceived Integrity)

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.718
Bartlett's Test of Sphericity	Approx. Chi-Square	222.437
	df	6
	Sig.	0.000

Note. Data generated from author's SPSS dataset.

Exploratory factor analysis was conducted next, with the results shown in Table 11 below. The first factor explains 67.932% of the variance among all four questions grouped under the perceived integrity construct. This variance score exceeds the minimum variance required of 40%, and therefore, the factors were confirmed to adequately measure the underlying construct of perceived integrity.

Table 11*Exploratory Factor Analysis (Perceived Integrity)*

Total Variance Explained						
Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.717	67.932	67.932	2.349	58.727	58.727
2	0.734	18.339	86.271			
3	0.349	8.724	94.994			
4	0.200	5.006	100.000			

Note. Data generated from author's SPSS dataset.

The next phase of construct validity involved determining the factor loadings for each survey statement that groups into the factor, or latent variable, of perceived integrity. Results shown in Table 12. For each statement, or observed variable, the factor loadings exceed the acceptable loading output of 0.40. All four statements demonstrate an acceptable to strong positive relationship to the latent variable, perceived integrity, indicating evidence of construct validity.

Table 12*Factor loadings (Perceived Integrity)*

Perceived Integrity	
	Component 1
My primary cryptocurrency exchange does not ignore when clients have problems	0.555
My primary cryptocurrency exchange treats clients fairly	0.828
My primary cryptocurrency exchange abides by the law and regulations	0.750
My primary cryptocurrency exchange has integrity	0.891

Note. Data generated from author's SPSS dataset.

5.3.1.2 Reliability Results

The Cronbach's Alpha (CA) coefficient for the four survey statements measuring perceived integrity was 0.833. The coefficient was greater than 0.60, indicating excellent internal consistency and reliability.

Table 13

Cronbach's Alpha (Perceived Integrity)

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.833	0.839	4

Note. Data generated from author's SPSS dataset.

5.3.2 Trust

5.3.2.1 Validity Results

The second construct, trust, achieved a Kaiser-Meyer-Olkin (KMO) value of 0.799 (Table 14), exceeding the minimum requirement of 0.50. It demonstrated sampling adequacy and supported the construct validity of the trust survey scale. The data were suitable for exploratory factor analysis.

Table 14

Data appropriateness (Trust)

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.799
Bartlett's Test of Sphericity	Approx. Chi-Square	518.889
	df	10
	Sig.	0.000

Note. Data generated from author's SPSS dataset.

Exploratory factor analysis was conducted next, with the results presented in Table 15 below. The first factor explains 79.134% of the variance among all five questions grouped under the trust construct. This variance score exceeds the minimum

required of 40%, and therefore, the factors were confirmed to adequately measure the underlying construct.

Table 15

Exploratory Factor Analysis (Trust)

Total Variance Explained						
Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.957	79.134	79.134	3.701	74.014	74.014
2	0.440	8.799	87.934			
3	0.338	6.762	94.696			
4	0.159	3.187	97.883			
5	0.106	2.117	100.000			

Note. Data generated from author's SPSS dataset.

The next phase of construct validity involved determining the factor loadings for each survey statement that loaded onto the trust factor (latent variable). Results shown in Table 16. For each statement, or observed variable, the factor loadings exceed the acceptable loading output of 0.40. All five statements demonstrate a strong positive relationship with the latent variable of trust, indicating construct validity.

Table 16

Factor loadings (Trust)

Trust	
	Factor
I trust my primary cryptocurrency exchange to store my crypto assets securely	0.851
I believe my cryptocurrency exchange provides adequate security measures	0.883
I feel confident that my cryptocurrency transactions are protected from hacking and fraud	0.913
I trust the reliability of my primary cryptocurrency exchange for conducting cryptocurrency transactions	0.819
I feel confident in the overall security of the cryptocurrency	0.832

ecosystem	
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Note. Data generated from author's SPSS dataset.

5.3.2.2 Reliability Results

The Cronbach's Alpha (CA) coefficient for the four survey statements measuring Trust was 0.930. The coefficient was greater than 0.60, indicating excellent internal consistency and reliability.

Table 17

Cronbach's Alpha (Trust)

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.930	0.934	5

Note. Data generated from author's SPSS dataset.

5.3.3 Brand loyalty

5.3.3.1 Validity Results

The five-item scale measuring the third construct, brand loyalty, yielded a Kaiser-Meyer-Olkin (KMO) value of 0.762 (Table 18), exceeding the minimum requirement of 0.50. This result demonstrates sampling adequacy and supports the construct validity of the brand loyalty survey scale. It indicates that the data is suitable for exploratory factor analysis.

Table 18

Data appropriateness (Brand loyalty)

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.762
Bartlett's Test of Sphericity	Approx. Chi-Square	479.976
	df	10
	Sig.	0.000

Note. Data generated from author's SPSS dataset.

Exploratory factor analysis was conducted next, with the results presented in Table 19 below. The first factor explains 74.510% of the variance among all five questions grouped under the brand loyalty construct. This variance score exceeds the minimum variance required of 40%, and therefore, the factors were confirmed to measure.

Table 19

Exploratory Factor Analysis (Brand loyalty)

Total Variance Explained						
Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.725	74.510	74.510	3.422	68.440	68.440
2	0.637	12.742	87.252			
3	0.377	7.549	94.801			
4	0.165	3.302	98.103			
5	0.095	1.897	100.000			

Note. Data generated from author's SPSS dataset.

The next phase of construct validity involved determining the factor loadings for each survey statement that loaded onto the brand loyalty factor (latent variable). Results shown in Table 20. For each statement, or observed variable, the factor loadings exceed the acceptable loading output of 0.40. All four statements demonstrate an acceptable to strong positive relationship to the latent variable, indicating evidence of construct validity.

Table 20

Factor loadings (Brand loyalty)

Brand Loyalty	
	Factor
I say positive things about my primary cryptocurrency exchange to other people	0.851

I recommend this cryptocurrency exchange to others who seek advice	0.912
I encourage friends and family to invest in crypto through this cryptocurrency exchange	0.730
I consider this cryptocurrency exchange my first choice for cryptocurrency investment-related services	0.845
Next time I invest in cryptocurrency, I will use this cryptocurrency exchange	0.787

Note. Data generated from author's SPSS dataset.

5.3.3.2 Reliability Results

The Cronbach's Alpha (CA) coefficient for the four survey statements measuring brand loyalty was 0.911. The coefficient was greater than 0.60, indicating excellent internal consistency and reliability.

Table 21

Cronbach's alpha (Brand loyalty)

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.911	0.914	5

Note. Data generated from author's SPSS dataset.

5.3.4 Fee sensitivity

5.3.4.1 Validity Results

The five-item scale measuring the fourth and final construct, fee sensitivity, achieved a Kaiser-Meyer-Olkin (KMO) value of 0.810 (Table 22), exceeding the minimum requirement of 0.50. This result demonstrates sampling adequacy and supports the construct validity of the fee sensitivity survey scale. The data is suitable for exploratory factor analysis.

Table 22*Data appropriateness (Fee sensitivity)*

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.810
Bartlett's Test of Sphericity	Approx. Chi-Square	426.127
	df	6
	Sig.	0.000

Note. Data generated from author's SPSS dataset.

Exploratory factor analysis was conducted next, with the results presented in Table 23 below. The first factor explains 84.108% of the variance among all four questions grouped under the fee sensitivity construct. This variance score exceeds the minimum variance required of 40%, and therefore, the factors were confirmed to adequately measure the underlying construct.

Table 23*Exploratory Factor Analysis (Fee sensitivity)*

Total Variance Explained						
Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.364	84.108	84.108	3.159	78.986	78.986
2	0.349	8.724	92.832			
3	0.176	4.392	97.225			
4	0.111	2.775	100.000			

Note. Data generated from author's SPSS dataset.

The next phase of construct validity involved determining the factor loadings for each survey statement that loaded onto the factor (latent variable) fee sensitivity. Results shown in Table 24. For each statement, or observed variable, the factor loadings exceed the acceptable loading output of 0.40. All four statements demonstrate an acceptable to strong positive relationship to the latent variable, indicating evidence of construct validity.

Table 24*Factor loadings (Fee sensitivity)*

Fee Sensitivity	
	Factor
I'm willing to make an extra effort to find a cryptocurrency exchange with lower fees	0.912
I will adjust my planned investment to take advantage of a lower fee offered on another cryptocurrency exchange	0.911
Fee Sensitivity [I am sensitive to differences in fees between exchanges	0.914
Fee Sensitivity [Even small differences in exchange fees matter to me	0.814

Note. Data generated from author's SPSS dataset.

5.3.4.2 Reliability Results

The Cronbach's Alpha (CA) coefficient of the four survey statements that measure fee sensitivity were 0.935. The coefficient was greater than 0.60, indicating excellent internal consistency and reliability.

Table 25*Cronbach's alpha (Fee sensitivity)*

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.935	0.937	4

Note. Data generated from author's SPSS dataset.

Table 26 below compares the Cronbach's alpha results for each measurement scale between the original and the adapted scales deployed in this research study. The table indicates that, except for the perceived integrity scale, the adapted scales in this study showed better internal consistency than the original scales. Each construct achieved a Cronbach's alpha of 0.833-0.935, indicating strong internal consistency (Taber, 2017).

Table 26*Cronbach's alpha comparison*

Construct	Cronbach Alpha		Reference
	This study	Original scale	
Perceived integrity	0.833	0.860	(Van Esterik-Plasmeijer & Van Raaij, 2017)
Trust	0.930	0.910	(Kulal et al., 2024)
Brand Loyalty	0.911	0.707	(Xuan et al., 2023)
Fee Sensitivity	0.935	0.870	(Wakefield & Inman, 2003)

Note. Author's own compilation.

5.4 Normality Results

An initial test for normality revealed several responses that caused the skewness and kurtosis values to fall outside the acceptable range of -2 to +2. Upon inspection of the results, responses 13, 14, and 53 were identified as outliers as shown per Appendix E and removed. Following the removal of these responses, the skewness and kurtosis measures moved into an acceptable range, as shown in Table 27, ensuring an approximate normal distribution.

Furthermore, the researcher inspected responses 6 and 109 because they were marked with an asterisk, as shown in Appendix E. However, the researcher validated both, with respondents deemed to have a low level of agreement rather than ulterior motives.

Table 27*Normality before and after outliers*

	[A] Before	[B] After
1. Perceived integrity		
Skewness	-1.624	-1.118
Kurtosis	3.660	1.821

2. Trust		
Skewness	-1.800	-1.232
Kurtosis	3.809	1.351
3. Brand Loyalty		
Skewness	-1.391	-1.004
Kurtosis	2.309	0.622
4. Fee sensitivity		
Skewness	-0.267	-0.298
Kurtosis	-0.823	-0.787

Note. Data generated from author's SPSS dataset.

5.4 Regression results

The relationships between the constructs were tested in five different ways: three direct regressions, and two in mediated ways. When the constructs talk directly with one another, they have significant relationships with each other. However, when trust and brand loyalty were introduced as mediating variables, perceived integrity and fee sensitivity did not have significant relationships, respectively. Table 28 presents the results of the simple linear regression tests for hypotheses one to five.

Table 28

Hypotheses results H1 to H5

Hypotheses	Std. β	P-values	Result
H1: Perceived Integrity ---> Fee Sensitivity	0.035	0.714	Not supported
H2: Perceived Integrity ---> Trust	0.532	0.000	Supported
H3: Trust ---> Fee Sensitivity	-0.163	0.289	Not supported
H4: Perceived Integrity ---> Brand Loyalty	0.341	0.000	Supported

H5: Brand Loyalty ---> Fee Sensitivity	-0.244	0.009	Supported
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Note. Author's compilation from SPSS dataset.

5.4.1 Hypothesis 1

The first hypothesis tested for a negative relationship between perceived integrity (independent variable) and fee sensitivity (dependent variable). A negative relationship between perceived integrity and fee sensitivity was not supported, with a beta coefficient of 0.035 and a p-value greater than 0.05, indicating a statistically insignificant relationship with no correlation between the variables. A beta coefficient of 0.035 indicates a very close to zero correlation between perceived integrity and fee sensitivity. A correlation coefficient between 0 and 0.30 indicates a weak relationship, between 0.30 and 0.50 a moderate, and greater than 0.50 a strong positive relationship, with the inverse direction true for a negative relationship (Turney, 2024).

5.4.2 Hypothesis 2

The second hypothesis tested for a positive relationship between perceived integrity (independent variable) and trust (dependent variable). A positive relationship between perceived integrity and trust was supported, with a beta coefficient of 0.532 and a p-value of less than 0.001, indicating a strong and statistically significant relationship (Turney, 2024). The closer the beta coefficient is to 1, the stronger the relationship between the variables. A one-unit increase in perceived integrity, results in a 0.532 increase in Trust.

5.4.3 Hypothesis 3

This hypothesis examined the relationship between trust and fee sensitivity ($\beta = -0.163$, $p > 0.05$). The regression result did not support H3, and showed that the relationship between trust and fee sensitivity has a weak negative correlation; however, it was not statistically significant. This correlation suggests that for every one-unit increase in trust, there is a predicted decrease of 0.163 units in fee sensitivity. With this hypothesis not supported, it establishes that trust is not a

significant predictor of fee sensitivity in this model and, practically, that higher levels of trust do not lead to a meaningful decrease in fee sensitivity.

5.4.4 Hypothesis 4

The fourth hypothesis tested for a positive relationship between perceived integrity and brand loyalty. The statistical analysis supported the hypothesis and found that perceived integrity positively influences brand loyalty, with a beta coefficient of 0.341 and a p-value of 0.000 ($p < 0.001$), indicating a positive and statistically significant relationship between the two variables. When perceived integrity increases by one unit or 100%, the brand loyalty of the cryptocurrency investor increases by 0.341, or 34.10%.

5.4.5 Hypothesis 5

This hypothesis examined the relationship between brand loyalty and fee sensitivity. The statistical analysis supported this hypothesis and found a negative correlation between brand loyalty and fee sensitivity, with a beta coefficient of -0.244 and a p-value of 0.009 ($p < 0.05$), indicating a statistically significant relationship between the two variables. When brand loyalty increases by one unit or 100%, the fee sensitivity of the cryptocurrency investor decreases by 0.244, or 24.40%.

5.5 Testing for mediation

To assess the mediating roles of trust and brand loyalty, a hierarchical regression analysis was employed.

5.5.1 Hypothesis 6

The sixth test was a direct regression of perceived integrity on fee sensitivity, with perceived integrity as the independent variable and fee sensitivity as the dependent variable, to establish a baseline relationship. The regression result yielded a beta coefficient of 0.035 and a p-value of 0.714, indicating no significant relationship between the two variables. Table 29 lists the statistical analysis output.

The second test introduced trust as the mediator. The regression coefficient for trust as a mediator was found to be insignificant, with a beta coefficient of -0.166 and a p-value of 0.139, which is less than 0.05 and indicates no significant relationship. As a result, trust does not mediate the relationship between perceived integrity and fee sensitivity.

Table 29

Results of H6 mediation analysis

Hypotheses	Indirect path coefficient	Std. β	P-value	Result
H6: Perceived Integrity (IV) --> Trust (Med) --> Fee Sensitivity (DV)	-0.088			Not Accepted
(a) IV --> Mediator		0.532	0.000	
(b) Mediator --> DV		-0.166	0.139	
(c) IV --> DV		0.035	0.714	
(d) Indirect effect (a x b)	-0.088			

Note. Author's compilation from SPSS dataset.

5.5.1 Hypothesis 7

Having already conducted a simple regression between perceived integrity and fee sensitivity, no direct relationship exists between the two variables.

The second regression test examines the indirect effect of perceived integrity on fee sensitivity, mediated by brand loyalty. The first step in calculating the indirect effect is to determine the (a) path, whether perceived integrity predict brand loyalty. This relationship was already supported, as shown in Table 30 below.

The regression coefficient for brand loyalty as a mediator was found to be insignificant, with a beta coefficient of -0.289 and a p-value of 0.004, which is less than 0.05 and indicates a significant relationship. As a result, brand loyalty does not mediate the relationship between perceived integrity and fee sensitivity.

Perceived integrity on its own doesn't influence fee sensitivity. When you introduce brand loyalty as a mediator, the beta improves, but the significance level remains

above 0.05, so it is not significant. Brand loyalty still exhibits an inverse relationship. As much as it doesn't prove a mediator, there is still an inverse relationship.

Table 30

Results of H7 mediation analysis

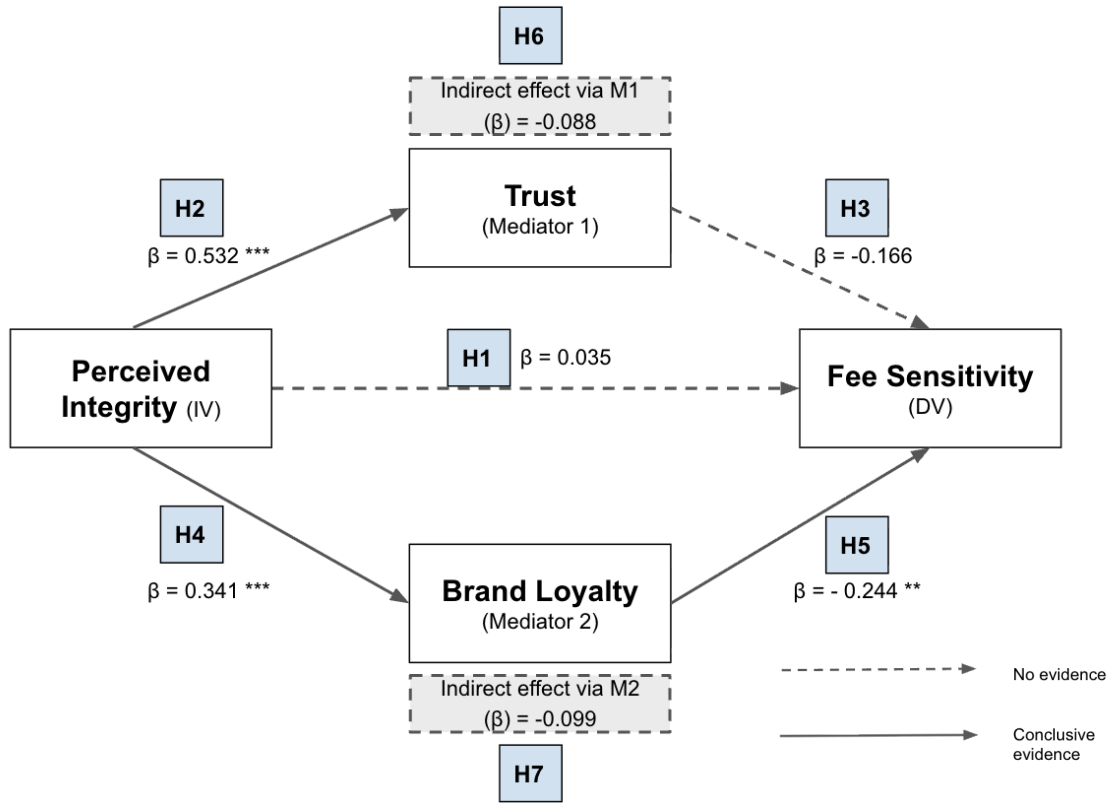
Hypotheses	Indirect path coefficient	Std. β	P-value	Result
H7: Perceived Integrity (IV) --> Brand Loyalty (M) --> Fee Sensitivity (DV)	-0.099			Not Accepted
(a) IV ---> Mediator		0.341	0.000	
(b) Mediator --> DV		-0.289	0.004	
(c) IV --> DV		0.035	0.714	
(d) Indirect effect (a x b)	-0.099			

Note. Author's compilation from SPSS dataset.

5.6 Summary of Conceptual Model Results

Figure 9

Conceptual Model Results



Note. This model shows the absence of a direct relationship between the dependent and independent variables, and the lack of a significant indirect effect exerted by the mediators. Brand loyalty is the only variable with a significant direct effect on sensitivity. (* $p < .05$, ** $p < .01$, *** $p < .001$)

CHAPTER 6: DISCUSSION OF RESULTS

6.1 Introduction

Figure 10

Outline of Discussion chapter

6.1 Introduction				
Main Headings	6.2 Overview of Demographics	6.3 Summary of results per hypothesis	6.4 Discussion per Hypothesis	
Sub Headings			6.3.1 Hypothesis 1	6.3.1 Hypothesis 4
			6.3.1 Hypothesis 2	6.3.1 Hypothesis 5
			6.3.1 Hypothesis 3	6.3.1 Hypothesis 6
6.5 Conclusion				

6.2 Overview of demographics

Table 8 in Chapter 5 details the respondent demographics, providing an overview of participants' gender, age, education, and crypto activity. The majority of respondents were male (84.5%), which aligns with the gender split in traditional investments and highlights the gender gap in cryptocurrency investment and ownership. Similar to conventional investments, men are more likely to invest in crypto than women. Prior research attributed this to two factors: first, men's financial overconfidence, and second, their greater inclination to invest in risky asset classes, including crypto (Nyhus et al., 2023).

Considering that the vast majority of respondents were male, who have a higher risk appetite for crypto investments, it is not surprising that 86% of respondents are in the age group 25 to 44. From a marketing perspective, initiatives should be targeted at males aged 25 to 40. The 35 to 44-year-old age group was the largest (55.20%), as people in this age group may have more capital reserves and money to invest in crypto. Older customers (45 years and older) can be viewed as risk-takers.

The majority (84.50%) of respondents hold a tertiary degree. This is important because it corroborates with Hansen (2012), who found that higher levels of financial knowledge positively influence individual consumer trust in their financial service provider. As shown in Table 9, the mean trust statistic for this sample was 5.8619 out of 7, indicating that respondents place a high degree of trust in their primary crypto exchange provider.

Nearly 50% of respondents have invested in crypto for more than five years, and 76% for more than three years. It indicates that respondents have been active long enough to have experienced industry-specific incidents, such as the FTX liquidation (Conlon et al., 2023), among others, which ought to have influenced investor perceptions of integrity, trust, and brand loyalty. Therefore, it is not unreasonable to expect the data to be more reliable, as the majority of respondents have seen it all.

Cryptocurrency exchanges generate revenue from trading commissions, fees charged when investors invest or divest in crypto. More frequent investing, therefore, generates higher revenue. The minority (16.40%) of respondents invest once a week or more frequently, with 37% investing monthly. Monthly investors may be more sophisticated and disciplined with their investments with monthly debit orders. From a customer retention perspective, the perceptions of monthly active customers must therefore be of particular importance to crypto exchanges.

6.3 Discussion per hypothesis

6.3.1 Hypothesis 1

H1_{Alt} - There is a significant negative relationship between Perceived Integrity and Fee Sensitivity.

This hypothesis posited that perceived integrity would negatively influence fee sensitivity. That is, every one-unit increase in perceived integrity from crypto investors would be met with a moderate ($\beta > 0.20$) or strong ($\beta > 0.50$) decrease in fee sensitivity. The regression result, as shown in Table 28, however, did not support H1 ($\beta = 0.035$, $p > 0.05$) and determined that no significant relationship exists between perceived integrity and fee sensitivity. This finding suggests that higher perceived integrity in a crypto exchange does not lead to lower fee sensitivity among crypto investors.

To the authors' best knowledge, no substantial body of literature exists that assesses the direct relationship between perceived integrity and fee sensitivity across research settings. Integrity links to trustworthiness through the Trust Theory model of Mayer et al. (1995) and Van Esterik-Plasmeijer and Van Raaij's (2017) research on trust determinants in financial institutions. According to Van Der Cruisen et al. (2021), the presence or absence of trust directly influences customer behavioural outcomes, including lower or higher price sensitivity. As integrity is a sub-element of trust, with behavioural consequences, it is possible that perceived integrity influences fee sensitivity through other variables, including trust.

This finding for crypto exchanges implies that merely operating with high integrity does not necessarily translate into lower fee sensitivity from customers or into higher pricing power for the exchange. Whilst H1 isolates perceived integrity as a predictor of lower fee sensitivity, it does not mean that there could be no significant negative relationship through an indirect path. Operating with integrity, as a predictor of trust, remains critical for financial services businesses from a customer retention perspective, as evidenced by the sudden drop in trust and ultimate liquidation of the FTX crypto exchange (Conlon et al., 2023).

6.3.2 Hypothesis 2

H2_{Alt} - There is a significant positive relationship between Perceived Integrity and Trust.

This hypothesis looked at the relationship and correlation between perceived integrity and trust. The regression result supported H2 ($\beta = 0.532$, $p < 0.01$) and showed a significant positive relationship between perceived integrity and trust. This correlation suggests that for every one-unit increase in perceived integrity, there is a predicted increase of 0.532 units in trust.

With this hypothesis supported, crypto investors are more likely to trust a cryptocurrency exchange if they perceive it to operate with integrity. Operating with integrity, among other factors, was measured through clients' perceptions of being treated fairly, their adherence to the law, and their pragmatic resolution of client problems.

This relationship between perceived integrity and trust achieved the highest correlation coefficient of all relationships tested and supports the application of Trust Theory (Mayer et al., 1995), which posits that perceived integrity is one of three sub-dimensions of trust and explains how trust develops between two parties. Van Dalen and Henkens (2018), in their research in a financial services context, identified integrity as one of the most important factors clients consider when assessing the trustworthiness of a financial services business. In another study with banks as the subjects, Esterik-Plasmeijer and Van Raaij (2017) found that integrity accounts for a meaningful portion of the trust clients hold in their banks. This research finding therefore confirms that perceived integrity, just like in the banking and financial services industry, also predicts trust in cryptocurrency exchanges.

In a largely unregulated crypto industry, as of October 2025, operating with integrity and meeting or exceeding the preconceived standards that investors expect should be a strategic imperative for crypto exchanges. The additional stamp of approval that regulation provides financial institutions with does not apply to most crypto exchanges. Consequently, exchanges must work harder to build a trust relationship with investors. The integrity of a crypto exchange is deemed an essential

component of its competitiveness in a highly competitive market (Isaeva et al., 2020). This finding, which indicates a significant positive correlation between perceived integrity and trust, is supported by existing literature on trust in financial services.

The relevance of this finding is significant in the context of the development of the crypto industry and its role within the country's and global monetary systems. Considering the adoption of cryptocurrency in Africa, as shown in Figure 1, and drawing on Van Der Crujisen et al. (2021), a lack of integrity could pose systemic risks to local economies, such as South Africa, where crypto adoption ranks second-highest in Africa. The responsibility of crypto exchange executives to operate their businesses with integrity is becoming increasingly important as adoption increases.

Increased competition poses a challenge to crypto exchanges' customer retention. Van Der Crujisen et al. (2021) found that low trust increases customer retention risk, and Van Dalen & Henkens (2018) found that a lack of integrity can increase dissatisfaction with banks, which in turn impacts brand loyalty. The implication for crypto exchanges, again, is that perceived integrity predicts customer satisfaction, which in turn affects trust and may cause a client to switch to a different crypto exchange.

6.3.3 Hypothesis 3

H3_{Alt} - There is a significant negative relationship between Trust and Fee Sensitivity.

This hypothesis posited that trust would negatively influence fee sensitivity. The regression result, as shown in Table 28, however, did not support H3 ($\beta = -0.163$, $p > 0.05$) and indicated a weak, insignificant relationship between trust and fee sensitivity. This correlation suggests that for every one-unit increase in trust, there is a predicted decrease of 0.163 units in fee sensitivity. However, with the p-value established, there is no significant relationship between the two constructs.

Contrary to previous research, this study found no evidence that higher levels of Trust are associated with greater price tolerance. In their study of service businesses, Isaeva et al. (2020) found that trust statistically improves clients' perceptions of value and price tolerance. A similar conclusion by Pandey et al. (2019), who posit that higher levels of trust predict increased price tolerance. This study, therefore, does not empirically support the findings of these two authors.

The weak negative correlation ($\beta = -0.163$) with fee sensitivity suggests that trust in a crypto exchange may have a threshold beyond which increases in trust have little to no marginal effect on fee sensitivity. This result implies that, even for crypto investors with high trust in their crypto exchange, fees matter beyond a certain threshold, and the exchange may face customer retention risks. This finding is significant in the context of increased industry rivalry and limited differentiation in brand messaging, as shown in Table 1. Although prior studies found a negative correlation between trust and clients' responses to pricing, this study found a weak, insignificant relationship.

Interestingly, the notion that early adopters are less likely to endure price increases also did not hold in this study. Dominique-Ferreira et al. (2016) found that the first clients of a new venture, the innovators, are less price-sensitive, with their intention to buy driven by other factors associated with early adoption. Considering that more than 50% of respondents in this study have invested in the crypto market for more than five years, and the nascent nature of crypto as a recognised investment class, the author posits that in this model, early crypto investors are sensitive to changes in fees, contrary to Dominique-Ferreira et al. (2016).

The majority of respondents indicated they would make an extra effort to find a crypto exchange with lower fees, despite generally trusting their primary crypto exchange provider. Trust was measured using a measurement scale from a crypto study conducted by Kulal et al. (2024); however, the measurement items focused more on trust in the security, ability to execute instructions and safeguard client assets and information, and did not measure trust in the exchange not providing them with unfair or uncompetitive rates.

A lack of trust may impact firm performance in other ways, such as client acquisition, growth, average transaction sizes, and the balances customers are willing to hold on the exchange platform. Van Der Cruijssen et al. (2021) posit that a lack of industry trust hinders the adoption of the underlying product or asset. Therefore, it is crucial that industry participants, such as crypto exchanges, adhere to specific standards to benefit the industry as a whole. However, from this perspective, increased trust does not necessarily reduce the fee sensitivity, as the data from this hypothesis do not support a negative relationship between trust and fee sensitivity.

6.3.4 Hypothesis 4

H4_{Alt} - There is a significant positive relationship between Perceived Integrity and Brand Loyalty.

This hypothesis examined the relationship between perceived integrity and brand loyalty ($\beta = 0.341$, $p < 0.01$). The regression results supported H4 and indicated a significant positive relationship between perceived integrity and brand loyalty. The result suggests that, in this research model, for every one-unit increase in perceived integrity, brand loyalty increases by 0.341 units. With H4 supported, crypto investors are more likely to be loyal to a crypto exchange brand if they perceive it to operate with integrity.

This finding builds on H1, which established a positive relationship between perceived integrity and trust. The literature suggests that integrity strengthens the relationship between trust and loyalty, with loyalty a behavioural outcome of trust (Van Der Cruijssen et al., 2021). Although this study did not run tests for moderation, the logic is that maintaining high levels of integrity will increase brand loyalty by strengthening investors' trust in the financial institution (Van Der Cruijssen et al., 2021). Taoana et al., 2021)

This result is important, given the positive business outcomes associated with brand loyalty. Companies do not spend enough time focusing on the antecedents of brand loyalty, which arguably warrants a single-threaded leadership focus,

considering the impact on organisational performance. Kim & Kim (2023) found that brand loyalty increases switching costs.

6.3.5 Hypothesis 5

H5_{Alt} - There is a significant negative relationship between Brand Loyalty and Fee Sensitivity

This hypothesis examined the relationship between brand loyalty and fee sensitivity ($\beta = -0.244$, $p < 0.01$). The regression result supported H5 and showed a significant, moderately negative relationship between brand loyalty and fee sensitivity. This correlation suggests that for every one-unit increase in brand loyalty, there is a predicted decrease of 0.244 in fee sensitivity. With this hypothesis supported, crypto investors are likely to be less sensitive to fees charged by their crypto exchange than by other exchanges if they are loyal to that brand.

Brand loyalty has many definitions, but broadly, it involves consumers' commitment to return and engage in repeat transactions with the brand, despite adverse events that could influence perceptions in the short term (Fernandes & Moreira, 2019). Cultivating client relationships and creating an emotional connection with customers fosters loyalty (Rust, 2019).

Eriksson et al. (2020) found that brand loyalty directly affects revenue from product sales in banks. Similarly, Pandey et al. (2019) found that brand loyalty is associated with lower price sensitivity among consumers in India. From a short-term insurance perspective, Dominique-Ferreira et al. (2016) also found a negative relationship between loyalty and fee sensitivity. Giovanis and Athanasopoulou (2017) examined this relationship in a non-financial services context among internet service subscribers and validated the negative relationship between loyalty and price sensitivity. The empirical results of this hypothesis, tested in the crypto sector, therefore corroborate the negative relationship between brand loyalty and fee sensitivity established in other industries, including banking, insurance and the Information and Communication Technology sectors. Crypto investors, therefore, display similar behaviour outcomes to consumers of organisations that sell

non-crypto products and services, when higher levels of brand loyalty are maintained and increased.

Importantly, in this model (Figure 9), brand loyalty was the only of the three independent variables that displayed a significant negative relationship with fee sensitivity. Considering that H4 was supported, perceived integrity has a significant positive effect on brand loyalty. If crypto exchanges want to build brand loyalty and reduce fee sensitivity, perceived integrity should be a key focus. More investment into brand positioning and building brand loyalty is a significant lever to influence price sensitivity in this market.

For executives and marketing managers at crypto exchanges, prioritising investment and resources in initiatives that increase brand loyalty should be a top focus. Based on the literature review, brand positioning that emphasises perceived integrity increases brand loyalty. Furthermore, the quality of two-way client relationships (Eriksson et al., 2020), as well as the successful design and execution of brand loyalty programmes, all contribute to higher levels of brand loyalty (Kim et al., 2021).

The literature also provides practical considerations for crypto exchanges regarding the positioning and design of brand loyalty initiatives. An overview of the brand positioning and loyalty incentives South African crypto exchanges offer in October 2025 highlights an opportunity to increase relevance and profitability in a highly competitive market with more than 200 licensed crypto asset service providers.

Firstly, loyalty programmes reduce price sensitivity; however, hard monetary rewards that provide savings, such as loyalty points, build greater brand loyalty than spot discounts, at lower fees (Kim et al., 2020). Marketing managers should therefore design loyalty mechanisms that increase brand loyalty rather than loyalty to the programmes themselves. Secondly, soft rewards such as exclusivity increase brand loyalty; however, marketing and relationship managers should guard against initiatives that are too personal, as these may undermine brand loyalty (Belli et al., 2021). Finally, crypto exchanges should design their loyalty programmes with a sign-up cost or include transactional hurdles, like EasyEquities' Thrive, as these elements increase switching costs and brand loyalty (Belli et al., 2021).

The adoption phase of a new product or service may reveal consumers' price sensitivity to that product. Statista (2025) estimates that crypto investor penetration in South Africa is around 10.49% of the total population. Given the author's location, the author asserts that South Africa is in the Innovator and Early Adopter phases of crypto adoption, as shown in Figure 5. Dominique-Ferreira et al. (2016) and Abdullah-Al-Mamun & Robel (2014) emphasised the clear link between early adopters and reduced price sensitivity. For this study, the mean sensitivity score was neutral to somewhat sensitive. Therefore, based on this model, the author concludes that crypto investors are slightly more sensitive to fees than early adopters of products and services in other sectors. Notwithstanding this finding, higher levels of brand loyalty in a crypto exchange are associated with lower fee sensitivity.

6.3.6 Hypothesis 6

H6_{Alt} - Trust mediates the relationship between Perceived Integrity and Fee Sensitivity, such that differences in Trust associated with Perceived Integrity explain differences in Fee Sensitivity.

This hypothesis proposed that trust mediates the relationship between perceived integrity and fee sensitivity. As summarised in Table 29, the direct effect between perceived integrity and fee sensitivity was non-significant ($\beta = 0.035$, $p > 0.05$). However, perceived integrity predicted Trust ($\beta = 0.532$, $p < 0.001$), and the author then examined the indirect effect of perceived integrity on fee sensitivity through trust. The indirect relationship was also non-significant ($\beta = -0.088$, $p > 0.05$), indicating that trust had no significant mediating effect on the relationship between the independent and dependent variables. Therefore, there is no direct or indirect relationship between trust and fee sensitivity when trust acts as the mediator.

This result contradicts an extensive body of literature on the mediating effect of trust between values or integrity-based constructs and behavioural constructs. To the researchers' best efforts, there is a paucity of research on the mediating effect of trust on fee or price sensitivity in general, and no empirical studies in the context of the crypto investment industry. In the broader literature, many authors have established trust as a significant mediator. Qalati et al. (2021) established trust as

an essential link between customer service quality and online shoppers' purchase intentions. Krah and Mertens (2023) confirmed that trust mediates the relationship between transparent government and taxpayers' willingness to pay taxes, rates, and utilities. Finally, trust proved to be a significant factor in clients' willingness to pay for specific features that add value (Tyrväinen et al., 2024).

6.3.7 Hypothesis 7

H7_{Alt} - Brand loyalty mediates the relationship between Perceived Integrity and Fee Sensitivity, such that differences in Brand Loyalty associated with Perceived Integrity explain differences in Fee Sensitivity.

This hypothesis proposed that brand loyalty mediates the relationship between perceived integrity and fee sensitivity. As summarised in Table 30, the direct effect between perceived integrity and fee sensitivity was non-significant ($\beta = 0.035$, $p > 0.05$). However, H4 and H5 with the brand loyalty construct were supported (Table 24), and the author continued to examine the indirect effect.

The indirect relationship was non-significant ($\beta = -0.099$, $p > 0.05$), indicating that perceived integrity does not affect fee sensitivity through brand loyalty. Although the indirect effect does not establish mediation, it indicates that both brand loyalty and trust have an inverse relationship, though this relationship remains non-significant.

CHAPTER 7: CONCLUSION AND RECOMMENDATIONS

7.1 Overview and Research Purpose

A rapidly growing crypto industry, which has seen Bitcoin rise to the eighth most valuable asset class with a market capitalisation of \$2.3 trillion in October 2025, has led to an increase in price-aggressive crypto exchanges seeking to capture an early share of trading volumes of this new asset class (*Assets Ranked by Market Cap - CompaniesMarketCap.com*, 2025). Providers that compete on price rather than product differentiation create a culture of fee competition and force less savvy exchanges into a price war, lowering firm and industry profitability (Liozu, 2018).

The strategic imperative for crypto exchanges is to reduce price sensitivity and gain pricing power. However, these two factors have little to do with prices and, according to Liozu (2018), are influenced by innovation and differentiation, which may include soft, psychological factors such as brand loyalty, perceived integrity, and trust. Price, or fee sensitivity, is “defined as changes in demand when the price of goods and services changes” (Lee et al., 2020).

The context of this research was to gain insights into the perceptions of individual crypto investors regarding the elements of perceived integrity, trust, and brand loyalty toward their primary crypto exchange, and their attitudes toward fee differences across crypto exchanges. These insights, collected through a survey questionnaire and analysed using regression analysis, revealed relationships and correlations among the aforementioned psychological factors and crypto investors' fee sensitivity.

These findings empower executives and marketing and product teams at crypto exchanges to direct resources and skills toward initiatives that reduce fee sensitivity, improve customer retention, and increase exchange pricing power. Competitor-based pricing strategies of new entrants influence the mindset of finance and brand managers at crypto exchanges and result in sub-optimal fee or pricing levels that impact firm sustainability (Liozu, 2018).

7.2 Research motivation: What was known and not known

The research fields of brand loyalty and trust offer deep insights into the factors that lead to loyalty and increased trust in organisations. From the literature review, Van Der Cruijssen et al. (2021) established the importance of perceived integrity for brand loyalty and customer retention in the context of traditional financial institutions. Integrity is a determining factor of trust, and sudden drops in trust can have devastating consequences for institutions, leading to large capital outflows (Metrick, 2024). Research found that innovation results in lower fee sensitivity, but also that customers of banks must first trust the bank before they will try new innovative products (Van Der Cruijssen et al., 2021).

Several authors found that direct, personal engagement with clients increases brand loyalty (Fernandes & Moreira, 2019; Eriksson et al., 2020) and clients' switching costs. However, information asymmetry, now even more pronounced due to artificial intelligence, makes price comparisons between financial institutions easy, and fees account for a third of why clients switch to other institutions (Yun & Hanson, 2020). Pandey et al. (2019) found that loyalty and trust increase price tolerance, but the results differ across product categories. Among Islamic banking clients, almost two-thirds would switch for a better interest rate, despite the emotional connection to religion.

Due to the nascent nature of crypto, academic literature on this topic is generally sparse, especially the factors that influence crypto investor buying behaviour. Rahardja et al. (2023) found that perceived trust has a significant positive effect on crypto investors' intention to invest in crypto using a specific crypto platform, but did not examine users' fee sensitivity. It further suggested that trading fees affect investors' intention to use a crypto exchange.

In the most comprehensive review on crypto, Almeida and Gonçalves's (2023) systematic literature review included investor behaviour aspects such as sentiment, herding behaviour, news effects and the efficiency of crypto markets in general, with no focus on fee sensitivity, or the predictors of investor fee sensitivity, and exchange pricing power.

7.3 Research question, hypotheses and methodology

A single overarching research question was established to provide a holistic explanation of the relationship between perceived integrity and fee sensitivity among global cryptocurrency investors, with trust and brand loyalty as mediating variables. In addition to the research question, seven hypotheses were selected to explain the direct and indirect relationships among these variables, with fee sensitivity as the dependent variable, providing greater granularity and specificity to the overall conclusion. The overall research structure and design were informed by the research onion (Saunders & Lewis, 2018).

Given the nature of the constructs and the need to capture individual or personal perceptions of psychological factors - namely, perceived integrity, trust, brand loyalty, and fee sensitivity - secondary data were not suitable for this study (Van Dalen & Henkens, 2018). The researcher collected primary data from individual crypto investors, including but not limited to South Africa, Nigeria, Kenya, Malaysia and Indonesia. Simple regression analysis examined the direction and strength of the relationships between the variables depicted in Figure 9, with brand loyalty determined the only variable with a significant direct correlation to fee sensitivity.

7.4 Principle findings

The results revealed a significant negative correlation between brand loyalty and fee sensitivity ($\beta = -0.244$, $p < 0.01$), with brand loyalty the only of the three relationships tested (perceived integrity, trust, brand loyalty) that significantly predict fee sensitivity among crypto investors. Notably, perceived integrity emerged as a significant predictor of brand loyalty among crypto investors ($\beta = 0.341$, $p < 0.01$). Consequently, if crypto exchanges were to reduce fee sensitivity, they should implement a strategy and execute initiatives that improve brand loyalty, specifically with an emphasis on perceived integrity as a core predictor of brand loyalty.

Finally, perceived integrity, the independent variable, does not demonstrate a significant negative relationship with Fee sensitivity. Therefore, crypto exchanges should not expect to reduce clients' fee sensitivity as they improve clients' perceived integrity. Increases in perceived integrity, for example, through the actions listed in Figure 3, could have a positive direct effect on brand loyalty ($\beta =$

0.341, $p < 0.01$) and trust ($\beta = 0.532$, $p < 0.01$). Finally, trust and brand loyalty do not mediate the relationship between perceived integrity and fee sensitivity. The lack of a mediating effect again confirms that crypto exchanges should focus their efforts on brand loyalty and its antecedents as a lever to reduce clients' fee sensitivity.

7.5 Theoretical and practical implications

Academic research on cryptocurrency has previously focused mainly on crypto market volatility and risk, crypto bull and bear markets, nefarious activity, and retail investor behaviour, such as herd mentality (Almeida & Gonçalves, 2023). To the best of the authors' knowledge, no research exists on the predictors of fee sensitivity among crypto investors, who primarily utilise crypto exchanges to exchange local fiat currencies for crypto. This research, therefore, adds to the literature on Trust Theory and pricing strategies.

The Trust Theory of Mayer et al (1995) positions trust as a critical factor in attracting and retaining customers, with integrity, ability and benevolence as three core predictors of trust. This study extended the trust theory literature to the business model and operation of crypto exchanges. In contrast, previous research has focused on traditional financial institutions such as banks, pension and insurance providers. Whilst the researcher found perceived integrity to have a significant effect on trust, in line with Trust theory, trust in a crypto investor's primary crypto exchange was not a significant predictor of lower fee sensitivity. The role of perceived integrity in answering the research question was substantial, as it emerged that brand loyalty was the only construct that had a statistically significant negative relationship with fee sensitivity.

The study's findings have practical implications for crypto exchange executives, marketing professionals, and exchange product managers responsible for managing profitable, sustainable business models. Firstly, crypto exchanges should focus on increasing brand loyalty through initiatives such as loyalty programmes and building direct personal relationships with top customers. These initiatives could reduce fee sensitivity and gradually build pricing power. Secondly, this research provides some guidance on pricing strategies; these should evolve from

competitor-based pricing to value-based pricing. By focusing on the value crypto exchanges deliver to clients, they can leverage brand loyalty and perceived integrity to reduce fee sensitivity and set pricing at the profit-maximising level. This way, exchanges can avoid a race to the bottom and differentiate themselves from competitors based on psychological factors.

7.6 Limitations and suggestions for future research

The researcher distributed the survey to respondents in countries outside of South Africa, including Kenya, Nigeria, Malaysia and Indonesia. However, the survey did not include a country-demographic item and could not therefore draw insights into fee-sensitivity differences among crypto investors across specific countries. Considering Lee et al.'s (2020) findings on lower fee sensitivity in high power distance cultures, the researcher recommends that future price sensitivity research be conducted through a country lens. The results would be particularly valuable to multinational businesses, enabling them to set pricing strategies based on cultural differences (Meyer, 2014). Furthermore, regulations vary from country to country, and it is possible that, in countries with crypto-specific regulations, investors' perceptions of integrity, trust, and brand loyalty might show stronger or weaker correlations with fee sensitivity.

This research was a narrow-scope, cross-sectional study that focused solely on the relationships between the research constructs and crypto investor perceptions at a particular point in time. The crypto market is notorious for its price volatility, with significant price swings and a 742% price appreciation in Bitcoin over the last five years (Trading Economics, 2025). This risk-return profile of crypto assets, such as Bitcoin, could have a greater impact on fee sensitivity, or the lack thereof, as perceived gains far outweigh the costs of investing, including exchange fees. Therefore, the list of predictors of lower fee sensitivity is not exhaustive, and future research could focus on the role of risk-return and fee sensitivity.

Research findings did not support H3 (Table 28), contradicting existing trust literature, including Pandey et al. (2019), and indicating a weak, insignificant negative relationship between trust and fee sensitivity. This finding was fascinating, as it suggests that higher levels of trust do not reduce crypto investors' fee

sensitivity. The author suggests future research to determine whether trust in cryptocurrency exchanges is a categorical or continuous construct, that is, whether it lies on a continuum from low to high. The implication is that if trust is a categorical construct, once investors reach a certain trust threshold, any effort to increase it beyond that threshold will not yield meaningful benefits to the exchange.

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APPENDICES

Appendix A: Survey as per Google Forms

I am currently a student at the University of Pretoria's Gordon Institute of Business Science, where I am completing my research in partial fulfilment of an MBA.

I am conducting research on the effect of brand trust, perceived integrity and brand loyalty on the fee sensitivity of cryptocurrency investors. To that end, you are asked to complete a survey. This will help us better understand how these psychological factors affect fee sensitivity. Your participation is voluntary, and you can withdraw at any time without penalty. Your participation is anonymous, and only aggregated data will be reported. By completing the survey, you indicate that you voluntarily participate in this research. If you have any concerns, please contact my supervisor or me. Our details are provided below.

Researcher name: Marius Reitz

Email: 24072754@mygibs.co.za

Supervisor name: Dr Sonja Fourie

Email: sonja@customersciencelab.com

1. Have you transacted with a cryptocurrency exchange in the past 24 months?

- 1.1. Yes
- 1.2. No (End survey)

2. What is your age?

- 2.1. Under 18 (End survey)
- 2.2. 18–24
- 2.3. 25–34
- 2.4. 35–44
- 2.5. 45–54
- 2.6. 55–64
- 2.7. 65 or older

3. What is your gender?

- 3.1. Male
- 3.2. Female
- 3.3. Non-binary
- 3.4. Transgender
- 3.5. Prefer not to say

4. What is your highest level of education?

- 4.1. Matric
- 4.2. Diploma
- 4.3. Undergraduate degree
- 4.4. Postgraduate degree (including Masters level)
- 4.5. Doctoral degree

5. How many cryptocurrency exchanges do you hold an active account with?

- 5.1. One
- 5.2. Two
- 5.3. Three
- 5.4. Three or more

6. For how many years have you had an account with a cryptocurrency exchange?

- 6.1. Less than 1 year
- 6.2. Between 1 and 3 years
- 6.3. Between 3 and 5 years
- 6.4. More than 5 years

7. How frequently do you invest and/or trade cryptocurrency?

- 7.1. Daily
- 7.2. Once a week
- 7.3. Several times a week
- 7.4. Once a month
- 7.5. Several times a month
- 7.6. A few times a year
- 7.7. Once every few years

8. Perceived Integrity

Seven-point Likert agreement-based scale where 1 = Strongly disagree, Disagree, Somewhat Disagree, Neutral, Somewhat Agree, Agree and 7 = Strongly agree

- 8.1. My primary cryptocurrency exchange does not ignore when clients have problems.
- 8.2. My primary cryptocurrency exchange treats clients fairly.
- 8.3. My primary cryptocurrency exchange abides by the law and regulations.
- 8.4. My primary cryptocurrency exchange has integrity.

9. Trust

Seven point Likert agreement based scale where 1 = Strongly disagree, Disagree, Somewhat Disagree, Neutral, Somewhat Agree, Agree and 7 = Strongly agree

- 9.1. I trust digital currency exchanges to securely store my assets.
- 9.2. I believe digital currency wallets provide adequate security measures.
- 9.3. I feel confident that digital currency transactions are protected from hacking and fraud.
- 9.4. I trust the reliability of digital currency platforms for conducting financial transactions.
- 9.5. I am confident in the overall security of the digital currency ecosystem.

10. Brand Loyalty

Seven point Likert sensitivity scale where 1 = Never, Rarely, Occasionally, Sometimes, Often, Very Often and 7 = Always

- 10.1. I say positive things about my primary cryptocurrency exchange to other people
- 10.2. I recommend this cryptocurrency exchange to others who seek advice
- 10.3. I encourage friends and family to invest in crypto through this cryptocurrency exchange
- 10.4. I consider this cryptocurrency exchange my first choice for cryptocurrency investment-related services
- 10.5. Next time I invest in cryptocurrency, I will use this cryptocurrency exchange

11. Fee sensitivity

Seven point Likert sensitivity scale where 1 = Never, Rarely, Occasionally, Sometimes, Often, Very Often and 7 = Always

- 11.1. I'm willing to make an extra effort to find a cryptocurrency exchange with lower fees.
- 11.2. I will change what I had planned to buy in order to take advantage of a lower fee offered on another cryptocurrency exchange.
- 11.3. I am sensitive to differences in fees between exchanges
- 11.4. Even small differences in exchange fees matter to me

Appendix B: G*Power calculation

Central and noncentral distributions

Protocol of power analyses

[1] -- Friday, July 18, 2025 -- 22:24:49

F tests - Linear multiple regression: Fixed model, R^2 deviation from zero

Analysis: A priori: Compute required sample size

Input:

Effect size f^2	=	0,15
α err prob	=	0,05
Power ($1-\beta$ err prob)	=	0,80
Number of predictors	=	9

Output:

Noncentrality parameter λ	=	17,1000000
Critical F	=	1,9711129
Numerator df	=	9
Denominator df	=	104
Total sample size	=	114
Actual power	=	0,8043554

Test family

Statistical test

F tests

Linear multiple regression: Fixed model, R^2 deviation from zero

Type of power analysis

A priori: Compute required sample size - given α , power, and effect size

Input parameters

Output parameters

Determine

Effect size f^2	0,15
α err prob	0,05
Power ($1-\beta$ err prob)	0,8
Number of predictors	9

Noncentrality parameter λ	17,1000000
Critical F	1,9711129
Numerator df	9
Denominator df	104
Total sample size	114
Actual power	0,8043554

Appendix C: Coefficient Tables from SPSS

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2.159	0.566		3.816	0.000	1.038	3.280
	Perceived_Integrity	0.616	0.093	0.532	6.611	0.000	0.431	0.800
a. Dependent Variable: Trust								

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	5.422	0.909		5.961	0.000	3.620	7.224
	Trust	-0.163	0.153	-0.101	-1.065	0.289	-0.466	0.140
a. Dependent Variable: Fee_Sensitivity								

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3.381	0.665		5.087	0.000	2.064	4.697
	Perceived_Integrity	0.418	0.109	0.341	3.822	0.000	0.201	0.635
a. Dependent Variable: Brand_Loyalty								

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	6.665	0.844		7.899	0.000	4.993	8.336
	Brand_Loyalty	-0.373	0.141	-0.244	-2.645	0.009	-0.652	-0.094

a. Dependent Variable: Fee_Sensitivity

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	4.074	1.082		3.767	0.000	1.931	6.217
	Perceived_Integrity	0.065	0.178	0.035	0.367	0.714	-0.287	0.418
2	(Constant)	4.654	1.144		4.068	0.000	2.387	6.922
	Perceived_Integrity	0.231	0.209	0.123	1.104	0.272	-0.183	0.645
	Trust	-0.269	0.180	-0.166	-1.490	0.139	-0.627	0.089

a. Dependent Variable: Fee_Sensitivity

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	4.074	1.082		3.767	0.000	1.931	6.217
	Perceived_Integrity	0.065	0.178	0.035	0.367	0.714	-0.287	0.418
2	(Constant)	5.570	1.161		4.797	0.000	3.269	7.870
	Perceived_Integrity	0.250	0.183	0.133	1.367	0.174	-0.113	0.613
	Brand_Loyalty	-0.442	0.149	-0.289	-2.962	0.004	-0.738	-0.146

a. Dependent Variable: Fee_Sensitivity

Appendix D: Survey social media prompts



Marius Reitz

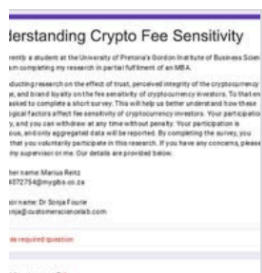
August 13 · 🌐



Ek doen tans navorsing vir my MBA en voer 'n studie uit onder krypto-beleggers.

As van julle dalk crypto besit en kans sien om die vraelys in te vul sal dit baie waardeer word! Dit neem ongeveer 3 tot 5 minute om te voltooi. Antwoorde bly anoniem en data word vertroulik hanteer.

Baie dankie 🙏



DOCS.GOOGLE.COM

Understanding Crypto Fee Sensitivity

I am currently a student at the University of Pretoria's Gordon Institute of Business Science, where I am completing my research in partial...



Marius Reitz · You

General Manager Africa and Europe at Luno

2mo · 🌐



Calling all crypto investors & traders.

I'm currently completing my MBA thesis, and I'm looking for participants to complete a short 3–5 minute survey. If you've bought or sold cryptocurrency in the past 2 years, your input would be incredibly valuable.

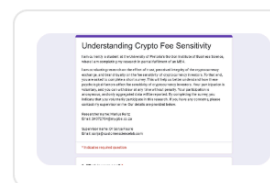
<https://lnkd.in/dUxx9P5d>

✅ All responses are completely confidential and anonymous.

Thank you in advance — and feel free to share with others who might qualify!

Dr. Sonja Fourie, PhD

GIBS Business School (Gordon Institute of Business Science)



Understanding Crypto Fee Sensitivity

docs.google.com

Appendix E: Outlier responses

