

Trust in Cryptocurrency Payments: A Cross-Cultural Analysis of Factors Influencing Adoption

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ABSTRACT

Although cryptocurrencies are not yet widely used as a method of payment in retail and commercial transactions, they are attracting a growing level of interest. However, if cryptocurrencies are to attract mass adoption for settlement, they will need to have merchant and consumer trust. This paper examines the factors which contribute to the development of trust, and whether the perception of trust varies between cultures (Arab and non-Arab). To explore this, the study analysed, using multigroup partial least squares analysis, 729 survey responses. The analysis examined the impact of four factors on perceived trust in cryptocurrency payments, and found that the perception of information confidentiality, identifiability and traceability all have a significant effect, while perceptions of fraud vulnerability had very little impact. There were also clear socio-cultural effects. This research offers significant insights into the trust dynamics essential for the acceptance of crypto-payment-services and highlights the importance of culture perspectives.

KEYWORDS

Crypto-Payment, E-Commerce, Consumer Trust, Information Security, Privacy, Culture

INTRODUCTION

Although public awareness of digital currencies such as cryptocurrencies and stablecoins (i.e., cryptocurrencies typically pegged to a fiat currency) has grown in recent years, they are still rarely used as a means of payment in day-to-day e-commerce transactions. In fact, as recently as 2022, cryptocurrencies and stablecoins were estimated as having less than 0.2% of global transaction value (Popper, 2020; Statista, 2023b), while many central banks have also noted that cryptocurrency use for regular payments is extremely low (Statista, 2023a).

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Despite the growing interest and awareness, several factors contribute to consumer reticence, such as concerns over security and volatility and the lack of widespread acceptance among merchants. However, many merchants are keen to accelerate the adoption of crypto payments because of the potential benefits. For instance, cryptocurrencies can attract new customers, enhance customer journeys, and potentially lower transaction fees. Consumer demand for lower transaction fees and faster processing times, as evidenced by the ventures of companies like Ferrari and PayPal into cryptocurrency, drives merchant decisions to adopt these digital currencies. Examples of this enthusiasm include the car manufacturer Ferrari, which started to accept cryptocurrency payments in 2023 (Partz, 2023), and PayPal, which created its own stablecoin around the same time (PayPal Newsroom, 2023). Many other major corporations, such as AT&T, Microsoft and Visa, have also begun to offer cryptocurrency as a payment option (David Walsh, 2021), either directly or through intermediaries. For example, Ferrari's adoption of cryptocurrency not only taps into a niche market of tech-savvy consumers seeking innovative payment methods, but also reflects a strategic move to lower transaction fees and enhance payment processing speeds. Similarly, PayPal's introduction of its own stablecoin addresses consumer demand for secure, fast, and low-cost transactions, thus encouraging broader acceptance and usage among its vast user base. These examples underscore the interplay between consumer expectations and merchant strategies in the evolving landscape of digital payments.

Consumers, too, are showing signs of increasing engagement with cryptocurrencies. This engagement is, again, driven by the fact that, while cryptocurrencies fulfil all the fundamental functions of conventional money (a medium of exchange, a unit of account, and a store of value (Duranović et al., 2023; Mokni et al., 2024), they also deliver significant benefits. The use of cryptocurrencies, for example, does not involve traditional banking intermediaries (Grassi et al., 2022), which can result in significantly reduced processing times and lower—or even non-existent—transaction fees to the user.

The fact remains, however, that consumer demand is currently low on a global basis (Gao et al., 2024; Mujačević, 2024; Sangari & Mashatan, 2024). If this demand is to be increased to the point of mass acceptance, several major challenges must be addressed, such as consumer concerns over confidentiality, transaction security, market volatility, operational integrity and the legal and regulatory framework (Gao et al., 2024; Mokni et al., 2024). The first step in successfully meeting these challenges, so that digital currencies can fully realise their potential as a consumer payment mechanism, is to gain a clear understanding of the factors which drive consumer adoption. Yet, while there have been several studies which have examined this issue, and which have contributed significantly to the literature, there have been relatively few studies, e.g. those by Abraham et al. (2019a) and by Salcedo and Gupta (2021) which have examined in detail the socio-cultural impact of user attitudes and perspectives on crypto adoption. However, as far as the authors of the current study are aware, there is no research which specifically compares Arab and non-Arab perspectives on cryptocurrency adoption. Given the important role of Arab nations in the global economy, such research could play an important role in the development and implementation of technical and regulatory frameworks in the area of digital currencies. This study seeks to fill this gap in the literature.

In order to meet this objective, it is necessary to examine the role of some key psychological factors which influence individual trust in digital (financial) technology, through the lens of socio-cultural context. In this respect, the principal factor affecting crypto-adoption is the perception of security of personal information. This is a result of a rapid increase, over recent years, in both the frequency and sophistication of security breaches, as well as the continuously evolving array of privacy and security challenges in digital spaces (Ayaburi & Treku, 2020; Degirmenci, 2020; Paspatis et al., 2023), particularly in the arena of online payment systems and technologies (Alkis & Kose, 2022; Jabbar et al., 2023). The use of cryptocurrencies presents a particularly perplexing scenario for consumers because they (cryptocurrencies) are notably different from conventional currencies in so far as they, for example, lack third-party intermediaries owing to their decentralised structure and are not yet governed by comprehensive legal and regulatory frameworks. Understanding how individuals perceive these confidentiality and security dimensions and how they translate these perceptions into intention

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