

The Impact of Social Influence on Individuals' Behavioural Intention to Adopt Blockchain Technology

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Abstract:

As blockchain became popular technology, This short paper proposes the potential effect of different groups of people on individuals' behavioural intention to embrace this technology. Social influence in previous studies shows a significant impact on individuals toward adopting new technologies. To understand the effect of different group of people namely family, friends and community on intention to utilise the new phenomena is the purpose of this proposed paper. Considering the growing interest in the use of Bitcoins through blockchain technology, we argue that the lack of studies on social influence on Bitcoins adoption will contribute significantly to bridge a gap in the literature and provide a research opportunity to contextualise the effect of social influence and broaden its dimensions to include several influence channels. This study provides an opportunity for a future research to validate the proposed model and suggests the plan to conduct such verification.

Keywords: Blockchain, Bitcoin, Social Influence, Behavioural Intention, Adoption.

1. Introduction and Background

Blockchain is that all transactions are decentralised and sorted in distributed databases removing the need for the intermediate of a third party, and it is "...an incorruptible digital ledger of economic transactions that can be programmed to record not just financial transactions but virtually everything of value"(Don & Alex 2016). It is predicted that 10% of the global GDP will be stored utilising blockchain technology by 2027 (Pete 2015). Therefore, topics related to blockchain is becoming popular among researchers recently. A popular use of blockchain technology is the use of the Bitcoin cryptocurrency, which is the most associated technology with blockchain. Bitcoin is one of the trends that has provided people from all over the world with an opportunity to transfer any amount of money to any part of the globe without any limitations exhibited among other online money transfer services. Bitcoin considered one of the most popular and essential cryptocurrencies in the digital world (Nseke 2018). Using bitcoins is an intelligent way to perform payments on the internet (Tsanidis et al. 2015). Changing from regular currencies to cryptocurrencies is a challenging task, and accepting change is challenging too despite it being the best way of improving individual performance and efficiency (Son & Han 2011).

As Lin and Chang (2011) and Alharbi & Drew (2014) emphasize, the degree to which individuals accept new technologies directly depends on their social circle and their own perceptions towards this technology. Notably, even when an innovation is exceptional, there are multiple factors that influence individuals' behavioural intention to adopt new technologies. Despite the increasing popularity of Bitcoin in recent years, it is still too early to draw a conclusion about the end-users intention adoption of blockchain-based technologies such as Bitcoin (Schuh & Shy 2016). Therefore, this research responds to the need in further investigating the drivers for Bitcoin adoption.

In this research, the focus will be on the impact of Social influence that may elevate from moving the trust and authority from central entities to public trusted ledgers as blockchain suggests. In particular, this study investigates users' points of views on the following four concepts: Family Influence, friends influence and community influence. Moreover, the possible influence of those factors on behavioural intention to adopt bitcoin is explored.

2. Research aim and objectives

Aim of this research is addressing the following question:

How does social influence affect individuals' behavioural intention to adopt bitcoin?

The main purpose of this study is to identify the group of social influence that determine individuals' intention to embrace new technologies. More specifically, the study aims to understand the influence of Family, Friends and community on individuals' intention to adopt Bitcoin, which is the world's most popular virtual currency.

3. Literature Review

3.1 Social Influence

Social influence is known as the influence of surrounding people - including family, friends, community, and mass media - on individuals' decision to use a product, technology, or a service (Riquelme & Rios 2010, Alharbi et al. 2015). Its operationalised definition is "the extent to which consumers perceive that important others believe they should use a particular technology" (Venkatesh, Thong & Xu 2012). It can be explained as that the social influence, from different social groups, can positively or negatively inform individual's decisions towards an action, in which those who are important to him/her would influence his beliefs towards a product or service. Thus, his/her decision to use or refrain from such product or service is dependent on others influence on his decision. Several studies explained the relevance of social context and how it can affect technology adoption process; by explaining the source of influence, (i.e. people agree with others, people are influenced by public figures or celebrities, the influence of media such as social networks). Further, Lu (2014) affirms that the continues exposure to the transmitted information from someone's social surrounding plays undeniable role in his/her perception towards a targeted technology.

Based on the above, the critical role of social influence may not be overseen in studies concerning technology adoption (Pedersen & Ling 2002). The literature, however, shows a mixture results on the effects of social influence depending on the context where the study was applied. It seems that there are two broad categories, the impact of social influence where the use of a technology is mandatory, or the use of a targeted technology is voluntary. Several studies deduced that social influence is a great predictor of technology adoption in various domains of research. For instance, social influence, among other factors, was found to be a significant predictor of behavioural intention adopt mobile wallet in developing countries (Madan & Yadav 2016). This is was also supported in a recent study in which that social influence was identified to enhance adoption readiness for mobile payments in India, and thus positively impact participants behavioural intention to use it. In a study on the impact of social influence on mobile commerce in USA, it was found that social influence impacted users' continues intention to use m-commerce technology, indicating that even for users group that impact of social influence is inevitable (Lu 2014). Another concurrent study advocates that the influence of social context is critical for both adopters and non-adopters alike (Slade, Dwivedi, Piercy & Williams 2015), validating the use of social influence as a factor to predict both users and non-users' group intention to adopt a certain technology or service. However, the literature also shows inconsistent findings. In a study on the adoption of mobile payments, social influence was not significantly predicting individuals intention to use m-payment (Teo, Tan, Ooi, & Lin, 2015). This confirms the need for further understanding of the social influence group, the context of the influence, the type of the technology to be adopted, and the setting and whether it is voluntary or mandatory to use the technology being studied. Similar to the international studies, there have been numerous studies that shows the great influence of social influence on technology adoption. For example, social influence has been linked to general individuals' intention to use e-government services (Alharbi et al. 2015, Alzahrani 2011), e-commerce and e-shopping (Al-Maghrabi & Dennis 2011).

Aggregating the evidence from the literature on the importance of the social influence as a predictor of a targeted technology use, and considering the growing interest in the use of Bitcoins, we argue that the lack of studies on social influence on Bitcoins adoption will contribute greatly to bridge a gap in the literature and provide a research opportunity to contextualise the effect of social influence and broaden its dimensions to include several influence channels.

3.2 Intention to adopt blockchain technology

The primary objective of this research is to investigate the factors that drives individuals' behavioural intention to use bitcoin as a payment method. Intention was introduced as a factor that capture what drives individuals to perfume a desired behaviour (Fishbein & Ajzen 1977). In the Theory of Reasoned Action (TRA), behavioural intention was considered as an immediate influencer of individuals decisions to take an action and perform a behaviour. In IS literature, Behavioural intention (BI) is defined as “the person's subjective probability that he or she will perform the behaviour in question”). BI has been frequently utilised to capture the factors that influence human’s behavioural intention to use a new innovation. Based on the above; this study suggests the following model on the predictors of intention to adopt blockchain.

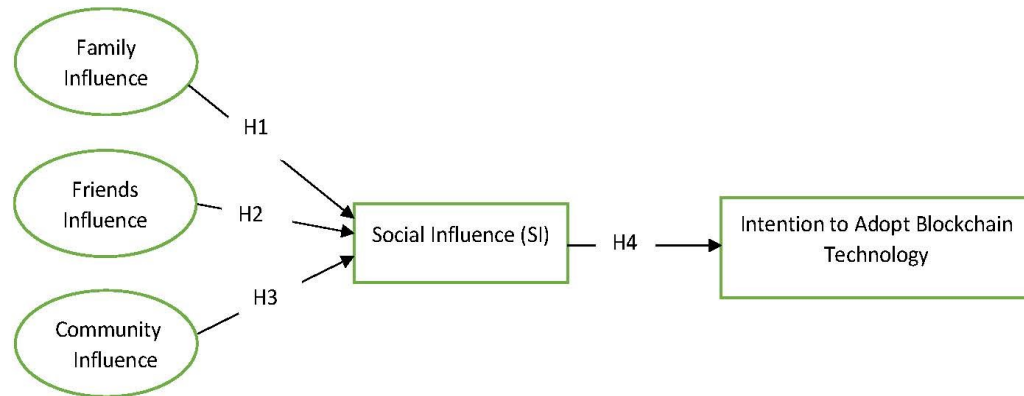


Figure 1: Research model

As shown in figure 1. The four hypotheses developed based on the above model are summarised in the table below:

Table 1: Summary of the research hypotheses

<i>Hypotheses</i>		<i>Reference</i>
H1:	Family influence has a positive effect on social influence.	(Alharbi et al. 2015, Alzahrani 2011)
H2:	Friends influence has a positive effect on social influence.	(Alharbi et al. 2015, Alzahrani 2011)
H3:	Community influence has a positive effect on social influence.	(Alharbi et al. 2015, Alzahrani 2011)
H4:	Social influence has a significant positive effect on individuals' intention to adopt blockchain technology	(Alharbi et al. 2015, Alzahrani 2011)

4. Conclusion and future work

This paper presents the potential use of blockchain technology, and Bitcoin specifically. It suggests that individuals' behavioural intention to adopt such innovation is predicted by Social influence. It provided the proposed relationships and open further gap in the literature to carry studies on. In the near future, the model will be validated, and the research hypothesis will be examined to provide empirical evidence to the relationships proposed.

The method will be used in this research is a survey questionnaire for collecting primary data from people living in Saudi Arabia. Choosing the questionnaire method among the other methods was for several reasons; such as low cost, time and effort required in gathering data from a large sample and geographically separated. In addition, in quantitative researches, greater confidence in the outcomes is approved by the structured approach through data collection and analysis, using statistical analysis and the large sample of data, which presents a reasonable explanation for the outcomes in a manner that, can be related entirely to others. The survey will be managed by the web-based method. Furthermore, Survey Monkey will be the survey hosting site, and Twitter from the social network sites will be used to share the survey with potential respondents.

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