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A Human-Centric Approach on the Adoption of Bitcoin as payment technology: The case of Interaction Between Tourism and Bitcoin Collaborative Networks

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Abstract
The use of Bitcoin as a mobile payment technology allows for greater inclusion by providing more significant access to global financial services, fast and borderless. Bitcoin has the potential to overcome numerous traditional financial system shortcomings in the tourism industry. But there is still a question regarding how merchants and travelers can embrace it. Technology acceptance in the context of interaction between Tourism and Bitcoin Collaborative Networks is the main challenge of this paper. The solution was discussed based on a human-centric approach. This is an essential step towards achieving society 5.0. Employing Fuzzy Cognitive Mapp (FCM), we explored the interrelationships among factors contributing to cooperation or failure in explaining why Bitcoin is accepted as a mobile payment technology by tourists and business owners. The study reveals that Perceived Usefulness is highly influenced by Cheap Transaction Fees and Bitcoin Awareness. Competitive Advantages factor is also largely controlled by Cheap Transaction Fees. The paper's findings assist business owners in implementing a new market growth strategy, and taking advantage of technological spillover, while authorities make sure to prepare suitable supportive laws aiming to empower socio-economic inclusion for low-income nations.

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1. Introduction

Society 5.0 is a new form of value-driven society that places a high priority on science and technology and utilizes them to generate significant social change (Salgues, 2018). It was stated for the first time in the 5th Science and Technology Basic Plan, which was adopted by the Japanese Cabinet in January 2016 as the country's growth plan. "A human-centered society that balances economic advancement with the resolution of social problems by a system that highly integrates cyberspace and physical space" (Society 5.0, 2022). Also, a similar definition of industry 5 has been made by the European Union that the focus has shifted from techno-driven to human-centric (Fonda & Meneghetti, 2022), in which human needs are given priority (Rosted, 2005). This means "Rather than asking what we can do with new technology, we ask what the technology can do for us" (Breque et al., 2021).

As a result, human-centric approaches are critical in advancing toward digitalization as such a driving force for achieving Society / Industry 5.0. While achieving the concept of Society 5.0 promises digitalization and equitable distribution of wealth, the tourism industry suffers from the inefficiencies of the global traditional financial system. Though society 5 promises digitalization and a more equitable distribution of wealth, the tourism industry has been suffering from the inefficiency of the global traditional financial system, despite increasing its presence on social media and travelers' blogging in recent years (Ráthonyi, 2013). Since many people in the world are unbanked or underbanked (Libra, 2019), tourist development faces numerous challenges. This lack of access demonstrates the traditional financial system's vulnerability, which has a direct destructive impact on local tourism businesses. Most African countries, far Asia, and Small Island Economies (SIE) often have no source of income other than tourism, and the lack of access to the international financial system challenges local business development (Kwok & Koh, 2019) for both tourists and business owners. Consequently, such a problem is against the UN Sustainable Development Goals (SDGs) and creates inequality, and can be considered one of the major obstacles to the global fair distribution of wealth (Rosa, 2017).

While addressing social issues such as "redistribution of wealth, and correction of regional inequality" (Findex, 2017; Libra, 2019) are among the major goals of achieving such a society, technology adoption as a human-centric approach to digital transformation appears to be a critical. Digitalization, on the other hand, necessitates the collaboration of heterogeneous systems and networks, and it can only accomplish this if it is approved and adopted by its users. Consequently, to be a part of society 5.0, collaborative networks (CN) must satisfy human needs, be user-centric, and encourage innovation.

Camarinha-Matos and Afsarmanesh (2004) developed the concept of CN, which refers to a heterogeneous network consisting of people and organizations that are backed by computer networks. The concept shows a greater possibility as driver of value creation.

Some scholars suggested Bitcoin as a remedy but before considering Bitcoin as an alternative payment solution, both Tourism Networks and Bitcoin Networks need to be carefully investigated. According to the definition (Daryaei et al. 2020), Bitcoin and Tourism collaborative network proposal can be depicted as follows:

The tourism and Bitcoin ecosystems are both vast and diverse. From the human-centric point of view, Bitcoin adoption and acceptance need to be happened in the "Adoption Domain" spot by Tourism/End-Users and Merchants as key players.

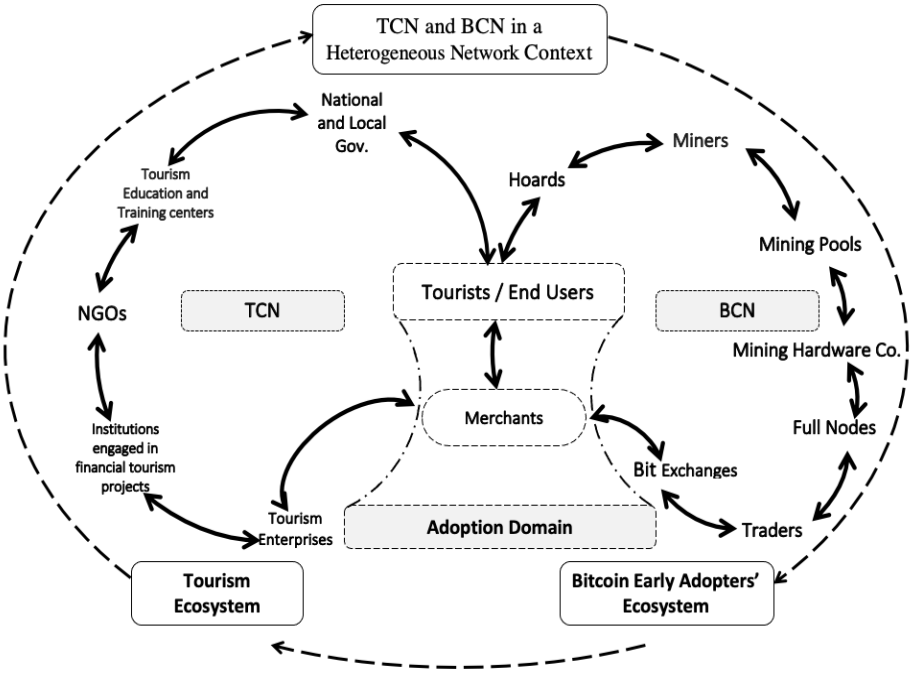


Figure 1. Bitcoin Collaborative Network and Tourism Collaborative Network adopted from (**Citation removed due to peer review policy**)

Since the value of a system is in the utilization of that system the above network can only work if merchants and tourists (as part of the Adoption Domain) accept Bitcoin technology. For this reason, we believe the above CN should be examined from the Technology Adoption standpoint and Human-Centric approach.

1.1. Problem Domain & Motivation

While World Bank (Findex, 2017) studies indicate that almost 1.7 billion people worldwide are unbanked, as well as 40% of the Caribbean economy (Parker and Lawrence, 2020), inefficiency in the global financial system can have a significant impact on local tourism business development. This inefficiency leads to increased inequality and poverty in low-income countries, which have no other source of income than tourism.

Some scholars recommend Bitcoin as an alternative to the payment solution and a way to remedy financial inequality (Nakamoto, 2008; Brar, 2018). Since both the tourism and Bitcoin ecosystems are complex and diversified systems that demand collaboration among a variety of stakeholders. As a result, the research question for this paper is "what variables encourage merchants and tourists to use Bitcoin as a payment mechanism in the tourism industry?". Eventually, as human-centric variables are involved, the primary goal of this research is to determine which factors can contribute to the proper operation of the entire chain.

2. Foundations and Related Works

Since the advent of Bitcoin, which improved payment methods and other innovative applications such as smart contracts and decentralized applications (dApps), numerous generations of blockchains have emerged (Nam et al, 2019). Blockchain as a data-driven technology can provide new forms of payment platforms for customers (Camilleri, 2020), such as the Locktrip project developed specifically for the hospitality sector, or numerous applications such as None-Fungible Assets (NFT) (Wang et al., 2021) and asset

tracking projects (Chiu and Koeppl, 2019), which can be enabled by blockchain.

Bitcoin is a flexible and peer-to-peer payment mechanism that has been introduced by Satoshi Nakamoto (2008) a blockchain-powered technology, which features a decentralized global banking system. There is no need for authority or a middleman and can be accessed by everyone with a 40$ smartphone and a minimum internet bandwidth connection (Libra, 2019).

Many Scholars investigated Bitcoin and blockchain from the technology acceptance standpoint (Shahzad et al., 2018; Alaeddin et al., 2018). Afifa et al., (2022) propose an extension to the Unified Theory of Acceptance and Use of Technology (UTAUT) model to investigate the intention to use blockchain, and (Huber and Sornette, 2022) argue about drivers of Bitcoin price and its network effects. Miraz et al., (2022) Investigated the adoption process of cryptocurrencies in Malaysia and examined numerous factors such as Trust, Volatility, intention to use, and so on. While Tut (2022) disuses that Bitcoin survivability is depending on "diversification role, institutional adoption, tax treatment and regulations", Schaupp et al., (2022) argue cryptocurrencies' intention to use for transactional purposes and suggest innovation encourages the importance of regulation and its impact on the industry.

There are very few studies focusing on cryptocurrencies and their impact on wealth distribution have been conducted. Despite some governments ignoring Bitcoin in its early stages or placing it in gray areas (Hendrickson et al., 2016), Bitcoin's influence over economics is undeniable now.

According to (Brar, 2018), Bitcoin and cryptocurrencies enable personal banking, as well as international transactions with no traditional financial institutions in the middle, leading to a greater level of inclusion for everyone. In an attempt to provide opportunities for access and production of wealth and inclusion, Bitcoin promises numerous benefits. Othman et al., (2020) state cryptocurrencies offer inequalities solutions due to their "(1) inflation channel, where cryptocurrencies adopted an algorithmic model to regulate the inflation problem, (2) a better channel for financial inclusion, and (3) it can strengthen economic equality due to a level playing field to mine the currency." Since in the early days of Bitcoin, the currency was concentrated in the hands of very few miners and early adopters, the more and more people adopt Bitcoin, the more equally distributed the wealth becomes. In turn, this would result in lower Gini values and less market manipulation power for whales. Thus, the increase in adoption will tend to lower the Gini coefficient at last (Sai et al., 2021). Therefore, we believe this is why the adoption term is a key to inclusion which depends on a comprehensive human-centric solution approach.

Additionally, researchers report that Slovakia's Gini coefficient is equal to 0.48, making it the most equal distribution of wealth in the world, even higher than Dash crypto's coefficient of 0.28 (Sai et al., 2021). It should also be considered that an increased supply of cryptocurrencies in global circulation will lead to equal income and wealth distributions, according to (Othman et al., 2020) research.

In addition to the poverty crisis being rooted in inequality Oxfam (2016) and Thornton (2015) assert that fiat money is ultimately an inflationary system that increases inequality by harming low-income classes. Jeribi and Ghorbel (2021) go one step further and suggest, that gold and Bitcoin could be considered as diversifier assets for the other BRICS economies. Acemoglu (2002) argues that technology can play an important role in reducing inequality, which is heavily

reliant on the poor's ability to access and use technologies that meet their needs. In addition, digital platforms allowed small producers to sell their products globally and develop local businesses (Acemoglu, 2002). Also, digital technologies have always been a powerful tool in the struggle for social justice and democracy, including income gap, gender inequality, and social class issues, as well as promoting globalization through Bitcoins. Decentralized autonomous organizations (DAOs), such as Bitcoin and blockchain technology offer a leapfrog strategy to low-income countries to "build a new form of socio-ecological, liberal, efficient and democratic kind of capitalism" (Van den Hoven et al., 2019).

According to the above, we suggest that Bitcoin as an emerging technology and a tool of blockchain technology can grant access to global financial services to the poorest people and also provide services in the most remote parts of the globe. Therefore, Bitcoin could in some dimensions help low-income nations achieve Sustainable Development Goals.

To investigate factors affecting Bitcoin adoption as a payment mechanism Fuzzy Cognitive Map (FCM) as a semi-quantitative methodology was conducted with a panel of professionals either academic or business owners. FCM was introduced by Kosko (1986), which is a type of cognitive map that captures professionals' subjective knowledge or opinions (Özesmi, and Özesmi, 2004). The interaction weight of each criterion can be collected in a pairwise matrix. A novel online tool named "Mental Modeler" software was employed to map casual relationships and variable interactions (Gray et al., 2012). Qualitative values that have been adjusted by professionals are translated into quantitative values (positive, negative, and neutral) and then the model is evaluated based on the Cartesian coordinates.

3. Methodological Procedures

13 factors including "Competitive Advantages", "Perceived Usefulness", "Cheap Transaction Fees", "Fast Clearance", "Government Regulatory", "Loss of Bitcoin Private Keys", "Bitcoin Awareness", "Victim of Theft", "Perceived Compatibility", "Bitcoin Volatility", "Risk-Taking Personality", "Trust in Performance", and "Bitcoin Technological Complexity" extracted from our previous study (Daryaei et al. 2020) as key drivers to adopt Bitcoin adoption. To investigate the most influential drivers and determine their priorities effects, a Fuzzy Cognitive Map (FCM) was employed.

3.1 Steps of Fuzzy Cognitive Map

After identifying research variables by in-depth literature review by adopting some PRISMA's features, in-depth interviews, and international Delphi process from our previous study (Daryaei et al. 2020) following steps are conducted:

(1) A group of experts formed including seven scholars and business owners, with different backgrounds either with practical experience in tourism business activities, academic degrees, or academic blockchain experience involved in such projects.

(2) A questionnaire was distributed to the experts who was asked to evaluate the direction of each impact either positive or negative and the influence of each criterion on a scale of five-level. Then an n×n fuzzy pair-wise comparison matrix is constructed.

(3) The criteria and linguistic values determined.

Five levels of evaluation are defined to survey the weight of each variable expressed by the experts. The linguistic terms will be converted to Triangular fuzzy numbers (TFNs) through the fuzzification calculations. Table 1 shows the conversion relationship:

Table 1. Fuzzy Linguistic scale.

Scores	Linguistic Terms	Equivalent triangular fuzzy numbers (TFNs)		
		l	m	u
1	"No influence (NO)"	0	0	0.25
2	"Very low influence (VL)"	0	0.25	0.5
3	"Low influence (L)"	0.25	0.5	0.75
4	"High influence (H)"	0.5	0.75	1
5	"Very high influence (VH)"	0.75	1	1

(4) After generating of direct-relation matrix, a fuzzy direct-relation matrix is obtained. Then fuzzy total-relation matrix is calculated. The defuzzification process is calculated using the following formula:

$$\text{Crisp (N } avera\text{)} = \frac{(l+2m+u)}{4}$$

(5) Because the inter-relationship is too complicated, a threshold value must be established to obtain a meaningful inter-relationship matrix and avoid negligible and additional complications. The threshold in this study is based on the matrix average. As a result, minor consequences will be overlooked.

(6) The above data was entered into Mental Modeler online software for further interpretation. The following complex relations were obtained.

Table 2. The crisp total- relationships matrix by considering the threshold value

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13
C1	0	0	0	0	0	0.19521724	0	0.20365987	0	0.1590228	0.21031175	0.16414031	0.27206834
C2	0	0	0	0	0	-0.1174235	0	-0.0804831	0	-0.1265566	-0.0755398	-0.0876957	-0.1571107
C3	-0.1358226	0	0	0	0	0	0	0	0	-0.0937313	-0.1348063	-0.1168724	-0.1702235
C4	0	0	0	0	0	-0.1083102	0	-0.0872233	0	-0.0972335	-0.0998018	0	-0.1261326
C5	0	0	0	0	0	-0.1417522	0	-0.0809389	0	-0.0852564	0	0	-0.1052428

C13	0.22873841	0.21776291	0.21186391	0.21411747	0.17697871	0.19606547	0.25488831	0.1306615
C12	0.18364776	0.13496663	0.17513339	0.11529754	0	0.1429838	0	0.18105642
C11	0.2192672	0.21043943	0.18259388	0.18785959	0.13068946	0	0.23840809	0.22272011
C10	0.17002094	0.1393033	0.14901538	0.12562855	0	0.1219989	0.14373571	0.14845025
C9	0	0	0	0	0	0	0	0
C8	0.21736917	0.22507877	0.11143738	0.18775408	0.13013971	0.18366242	0.21485468	0.197524
C7	0	0	0	0	0	0	0	0.22569462
C6	0.11426125	0.16953752	0.18578643	0.19331998	0.15417621	0.18347305	0.24029548	0.20174894
C5	0	0	0	0	0	0	0	0
C4	0	0	0	0	0	0	0	0
C3	0	0	0	0	0	0	0	0
C2	0	0	0	0	0	0	0.12918263	0
C1	0.13319249	0.11749612	0.12341459	0.11278208	0	0.15665436	0.2200833	0.17692198
	C6	C7	C8	C9	C10	C11	C12	C13

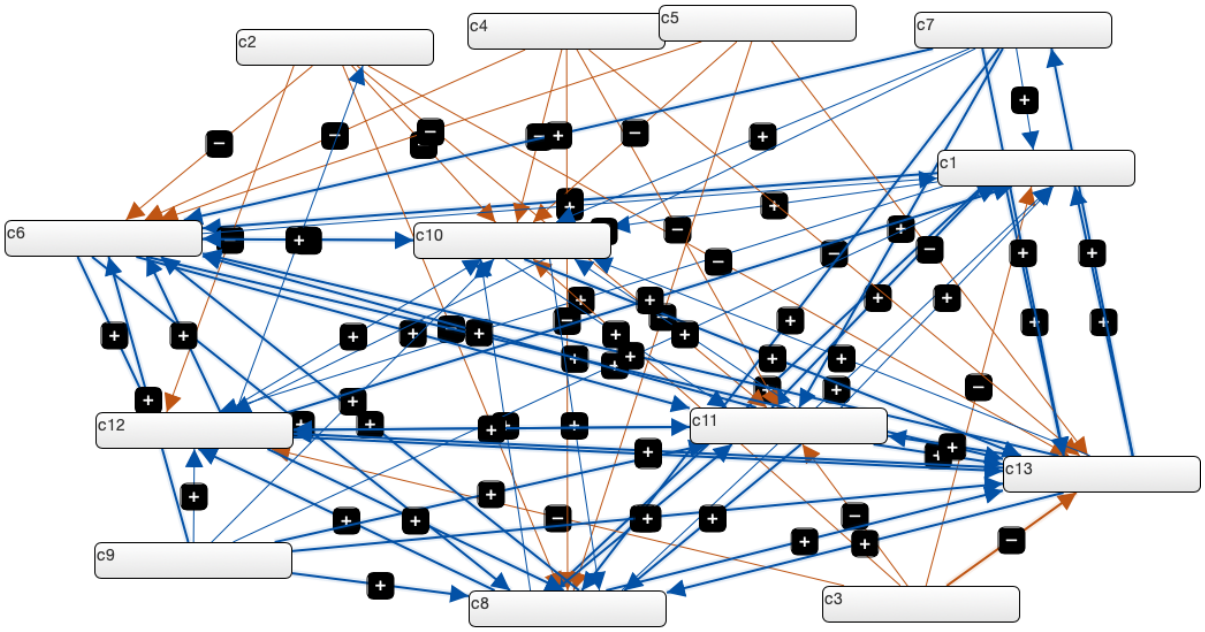


Figure 2. Cause and effect relationships of fuzzy cognitive mapping

To attain an in-depth understanding, the data are discussed from different categories' standpoints.

A useful classification to investigate variables based on input and output received or delivered can be mapped as follows:

1) The first group, also known as the Deliver Group, is comprised of nodes that are unaffected by others, which indicates that even though they have no input, they have an impact on other variables.
2) The second category called the Receiver Group, consists of nodes that are impacted by others, meaning they have input but no effects on others.
3) The third group or the Ordinary Group consists of nodes that have values in both their input and output.

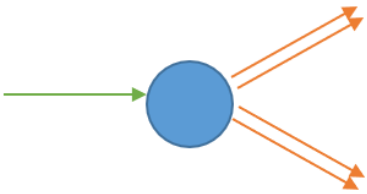
The variables in this study can be classified using the following method based on the above classifications:

(A) The first group has little both input and output.

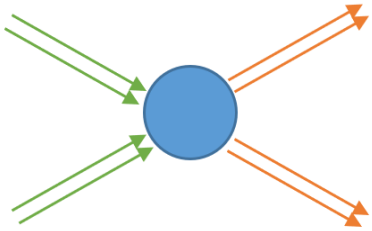
Because the factors in this category have such a low strength, they are not the primary concerns of users when it comes to Bitcoin adoption. This category includes the variables Bitcoin Volatility (C2), Loss of Bitcoin Private Keys (C4), Theft Victim (C5), and Bitcoin Technological Complexity (C3).

(B) The second group generates a lot of output but receives very little or no input. This group has a great impact on adoption and acceptance as result.

As a result, this group has a significant impact on adoption and acceptance. As a result, particular consideration should be given to these factors in order to improve the adoption process. Because they have the potential to enhance and improve the adoption process. On the other hand, although they receive far less input, they are easier to control because they are less affected by external influences. Variables Bitcoin Awareness (C1), Cheap Transaction Fees (C7), and Fast Clearance (C9) are among them.



(C) The third category consisted of nodes with a large number of inputs and outputs. These categories are significant because they have a wide range of interactions with other variables, so they should be carefully considered. These variables have a high degree of centrality and require special attention in analyzing Bitcoin adoption. Because numerous other factors influence these variables, their high degree of input indicates the difficulty of managing them. Among the variables in this category are Perceived Compatibility (C11), Competitive Advantages (C8), Government Regulatory (C12), Trust in Performance (C6), and Perceived Usefulness (C13).



(D) The fourth group has a lot of inputs but very little output. Because other variables have such a large impact on this category, managing and controlling the variables that fall into this category is a difficult undertaking. Due to the low output, these variables in this category will have little impact on the adoption rate. As a result, it is reasonable to conclude that certain variables should receive less attention. This group includes the Risk-Taking Personality (C10) variable.

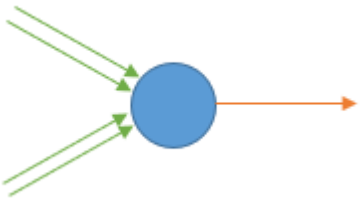


Figure 2 illustrates that the majority of variables are from the ordinary group, indicating that the most of variables received or delivered a significant impact. The penetration power of each node over the others can be investigated through the Outdegree factor. Indegree also indicates the influence strength received by external drivers.

As shown in Figure 3, factor C13 has the highest influence on other factors, while C12 and C6 are in the second and third positions, respectively. C4 and C5 also have the least power to impact others.

C13 also has the highest impact on other variables. Factors C6 and C8 are the next, respectively. C5, C3, C9, and C4 do not affect other factors. As a result, these four requirements should be referred to as "Delivery".

The sum of Indegree and Outdegree values can be used to calculate Centrality which shows the overall strength of a certain variable.

To identify the most important variables of Bitcoin adoption based on the results of the fuzzy logic cognitive map, the degree of centrality index (total degree of input and output) was used. Figure 5 shows the maximum and minimum values based on the degree of the centrality index. To put it another way, the higher a variable's degree of centrality, the more interaction it has in the cause-and-effect diagram. The centrality of C13 is the highest which is followed by C6 and C8. C5 at last has the least centrality.

The density of fuzzy cognitive maps is another criterion for evaluating them, as it reflects how well the map's components are connected or separated. Density refers

to the total number of possible routes on the map (Jassbi et al, 2011), which is 79 connections with 13 variables in this case. According to Table 3, there are 9 two-way relationship variables and four variables that have no input at all. The average number of connections per node was also 0.07, which represents the ratio of accessible connections to total components. Furthermore, there is a communication density of 0.5. Table 3 displays the Mental Modeler software's output information.

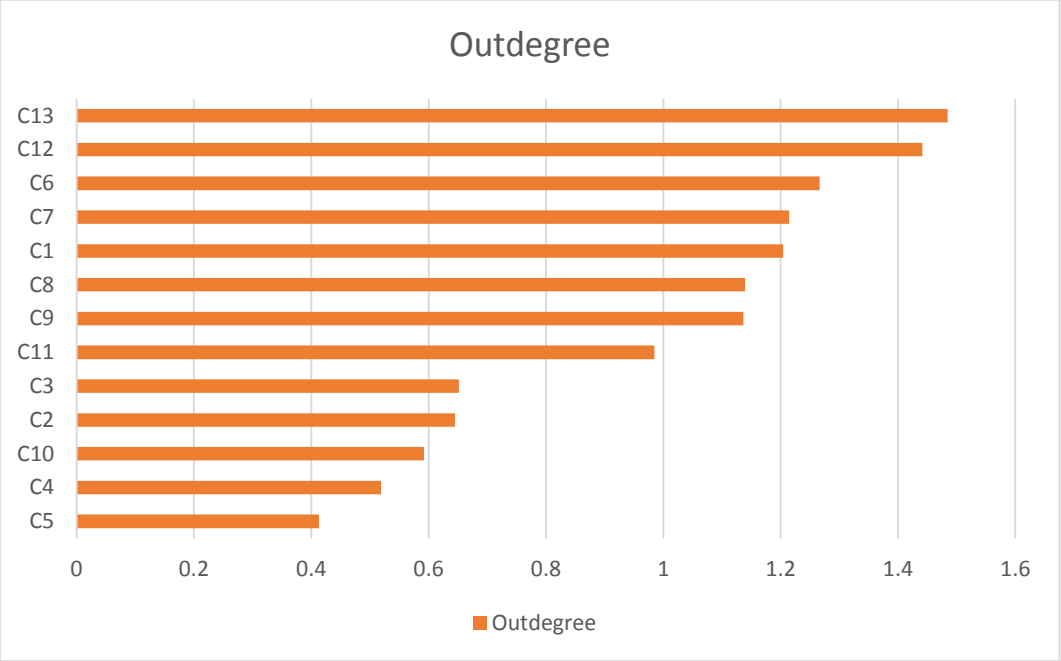


Figure 3. Influences power of each node on other variables

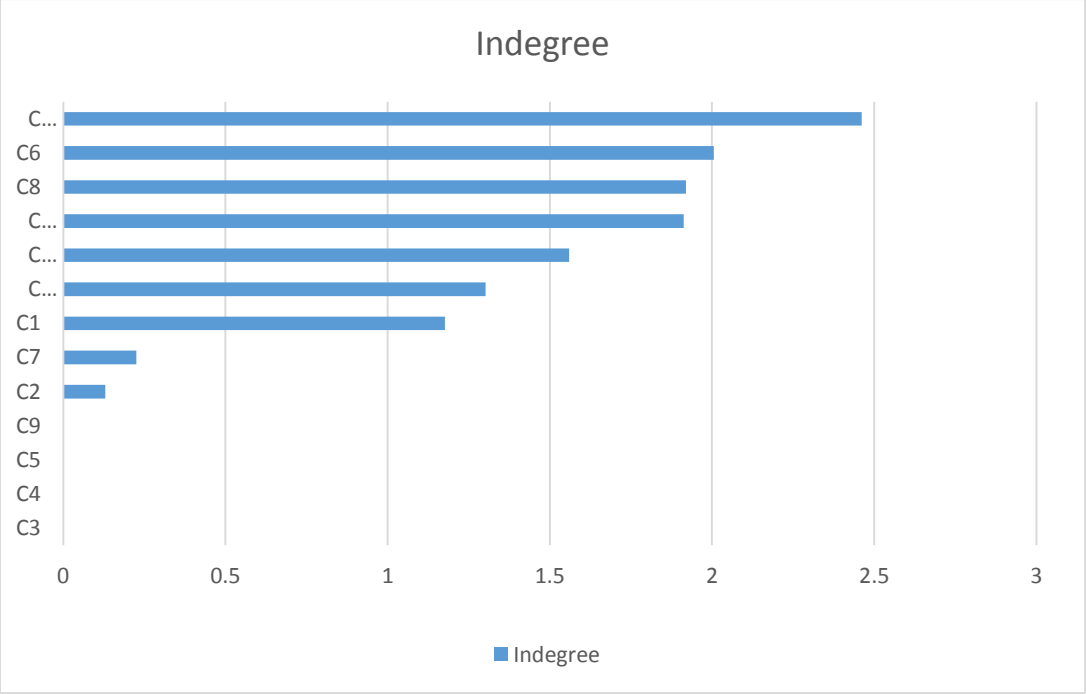


Figure 4. Influenced power of each node from other variables

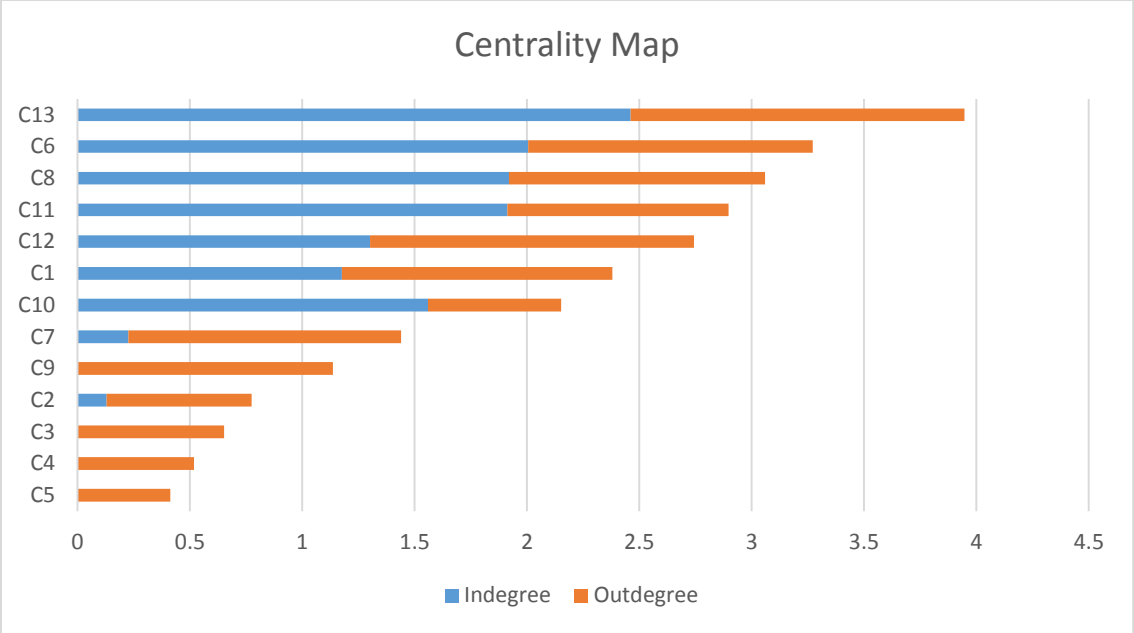


Figure 5. Centrality value of factors

Table 3. Mental Modeler Output

	Component	Indegree	Outdegree	Centrality	Type
Bitcoin Awareness	C1	1.176	1.204	2.38	Ordinary
Bitcoin Volatility	C2	0.129	0.644	0.77	Ordinary
Bitcoin Technological Complexity	C3	0	0.65	0.65	Deliver
Loss of Bitcoin Private Keys	C4	0	0.51	0.51	Deliver
Victim of Theft	C5	0	0.41	0.41	Deliver
Trust in Performance	C6	2	1.266	3.27	Ordinary
Cheap Transaction Fees	C7	0.22	1.214	1.44	Ordinary
Competitive Advantages	C8	1.92	1.139	3.059	Ordinary
Fast Clearance	C9	0	1.13	1.13	Deliver
Risk-Taking Personality	C10	1.559	0.59	2.15	Ordinary
Perceived Compatibility	C11	1.91	0.98	2.89	Ordinary
Government Regulatory	C12	1.3	1.44	2.74	Ordinary
Perceived Usefulness	C13	2.46	1.48	3.94	Ordinary

Based on the data obtained from input and output, the coordinates of each criterion were plotted on a Cartesian map to examine each variable more carefully based on the above classification.

Given that controlling many of the variables identified as influential factors in this paper is a difficult and time-consuming task, the map depicted in Figure 6 aids in maximizing energy for the improvement of the most effective factors. As a result of the Mental Modeler analysis, it appears that changes in the process of accepting Bitcoin as a new payment method should concentrate on three characteristics from group B, which have the highest output and relatively low input.

According to the Pareto principle (also known as the 80-20 rule) for many phenomena, roughly 80% of the consequences are caused by 20% of the causes. Therefore, in this study, it is recommended that the investigation of all factors with the value of partial interactions cannot be practical. Therefore, by applying the Pareto technique and examining the top 20% effect of factors on each other (Dunford, 2014), Table 4 and figure 7 show the most important internal effects.

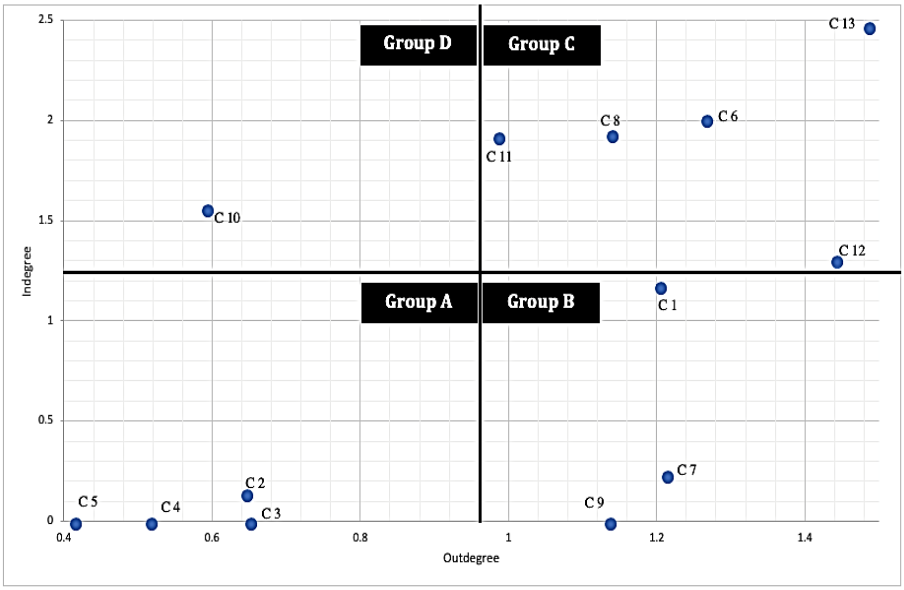


Figure 6. Cartesian coordinates of factors

Table 4. The most important interactions

Relations	*Value*	*Cumulative*	*%*
C1-C13	0.272068	0.2721	8%
C7-C8	0.225079	0.4971	14%
C7-C13	0.217763	0.7149	20%

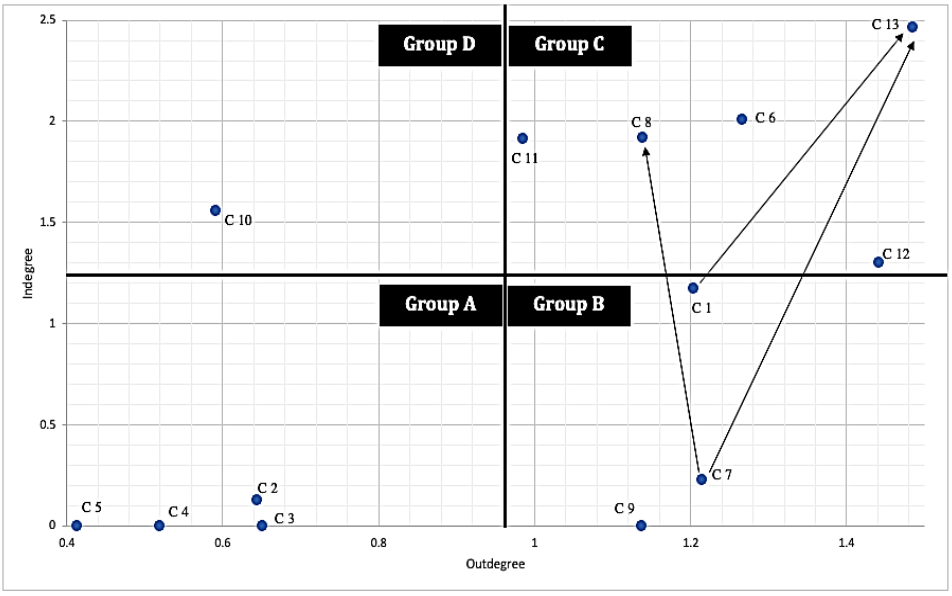


Figure 7. The impact of the most important factors of group B on C

The findings demonstrate that Perceived Usefulness (C13) is highly influenced by Cheap Transaction Fees (C7) and Bitcoin Awareness (C1). The Competitive Advantages (C8) factor is also largely controlled by Cheap Transaction Fees (C7).

4 Discussion and Conclusion

Since Cheap Transaction Fee and Bitcoin Awareness is less affected by other factors, they can be better managed. The Cheap Transaction Fee factor plays a critical role in Perceived Usefulness, Competitive Advantages, and eventually in the adoption process. Unlike other forms of traditional payment methods such as credit cards, Bitcoin allows for faster transactions at extremely cheap costs due to the absence of third parties (Nakamoto, 2008), which encourages travelers and local businesses to take advantage of Bitcoin acceptance (Erceg et al., 2020; Hashim et al., 2019). Roussou and Stiakakis (2019) also mentioned the importance of cheap transaction fees in Bitcoin adoption. Innovative protocols such as Lightning Network (LN) can solve scalability issues and expedite routine and small transactions and offer cheaper transaction fees (Fajri and Mahananto, 2022).

Bitcoin Awareness also plays a significant role in the Competitive Advantages factor and Bitcoin adoption, as a result. Using Bitcoin for ordinary users can be very complicated and one of the reasons that may reduce the desire of tourists to use it is the lack of awareness of its functionality. Therefore, training and knowledge of performance can reduce uncertainty and ultimately help the acceptance/use of Bitcoin. People who know the function and mechanism of Bitcoin also help others to use Bitcoin. Bitcoin is not able to develop itself as a payment method unless the merchants accept Bitcoin in exchange of goods and services. Therefore, training among sellers increases awareness and reduces uncertainty. Knowledge of Bitcoin performance makes Bitcoin acceptors aware of the benefits of using Bitcoin. Therefore, sellers who are aware of the working mechanism of Bitcoin are more interested in accepting/using Bitcoin.

Increasing the number of Bitcoin acceptors increases the network effects. People also tend to use technology when they feel it is useful to them. Network effects reduce development costs and ultimately improve technology. Some users find the Bitcoin usability factor important. Usability may, from their point of view, be the anonymity of the payer or the acceptance of the sellers of the goods, who can spend their Bitcoins at any time. Anonymity is one of the advantages emphasized in cryptocurrencies. There are various motivations for anonymity, but many tourists and users find this feature useful. Increasing the number of payment gateways also increases the effects of the network and helps tourists access Bitcoin payments whenever they want, even in the most remote parts of the world. As the increasing use of Bitcoin by sellers of technology goods and services becomes more usable and perceived usefulness increases, there is a positive relationship between acceptance and perceived usefulness. Increasing payment compatibility enables Bitcoin to integrate with new and old technologies, gives a competitive advantage to businesses, and allows tourists to use their Bitcoins at any time. This issue may be considered by business owners as a customer-centric strategy and attract tourists' attention. The compatibility of payment using Bitcoin gives people a lot of peace of mind. In contrast, the incompatibility of payment systems leads to the elimination of competitive advantages for sellers of goods and services. Therefore, we can say that increasing the compatibility of Bitcoin technology with existing payment systems

will increase the competitive advantage for sellers.

Providing an alternative payment solution improves the customer-focused approach and heightens the business position against other competitors. Implementing a customer orientation approach creates interest in tourists and makes them loyal to the brand. Given that the possibility of online shopping (including hotel and flight reservations, etc.) through Bitcoin creates a competitive advantage for businesses and leads to the acceptance of Bitcoin and a greater sense of customer satisfaction. Erceg et al., (2020) believe that the implementation of Blockchain can bring value to the tourism business such as competitive advantage, improve customer satisfaction, and performance enhancement.

On the other hand, the United Nations has set seventeen goals for sustainable development (SDGs) by 2030, mostly focusing to end poverty and hunger, achieving gender equality and inclusion, and achieving gender equality. Goal 10 is specially targeted to "Reduce inequality within and among countries" (Rosa, 2017). It is widely believed that innovation is essential for the economic and social growth of countries, which leads to economic growth, and wealth generation (Radfar, and Khamseh, 2016). Unlike the traditional financial system, Bitcoin is an innovative payment method, that promises a global solution with the least discrimination. Anyone with the least facilities can connect to the Bitcoin network as the integrated global financial system and set up their own business, accordingly. Bitcoin and blockchain offer permissionless innovation, which is the platform for a host of new countless innovative initiations. Bitcoin made personal banking possible through blockchain technology, as well as borderless transactions. The more people adopt and embrace Bitcoin, the traditional financial system shortcomings will be covered. And it is expected to help local businesses grow in remote parts of the world. The importance of this technology for tourism-dependent economies, especially in African countries, the Far East, and the small island economy is further highlighted.

While society 5.0 pursues the 17 goals of the United Nations, it is aimed at economic growth and technological development and not for the prosperity of some selected countries (Fukuyama, 2018). Bitcoin powered by blockchain can play a significant role in that inclusion.

This study's limitation might be referred to as the FCM analysis and errors limitation. The second limitation is connected to the scope and perspective of the research question, as well as the researchers' knowledge, and it is advised that future research examine the impacts of global financial system failure on the 17 SDGs of the United Nations in greater depth.

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