

The Role of Social Media as a Marketing Weapon for Blockchain Usage in the Egyptian Tourism Industry

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Abstract

The aim of this study is to investigate the role of social media as a marketing tool for blockchain usage in Egyptian tourism industry. The study relied on the quantitative approach, where a questionnaire was used as a tool for data collection and 500 questionnaires were distributed among international tourists and only 352 questionnaires were retrieved and valid for statistical analysis with a response rate was 75 percent. The SPSS version 24 was used analysis in addition to using WarpPLs version 7 to discover the mediating role of some study variables. The study concluded that social media is an important and influential marketing tool in the behavioral intention of tourists towards the usage of blockchain technology in the tourism industry through some intermediate variables such as attitude, subjective norms and perceived behavioral control. The study recommended the necessity of relying on social media as a marketing tool for the applications of modern technology in the tourism industry in Egypt and activating its role by publishing advertisements, pictures and videos on various social media platforms that include the marketing information about blockchain technology, how to use it and its advantages.

Methodology: A survey was used for data collection randomly from 352 international tourists in Egypt and structural equation modelling was used for testing research hypotheses.

Keywords: Social media, Blockchain, Cryptocurrency, Behavioral intention and Tourism industry

Introduction

Many countries used the internet extensively at the beginning of the twentieth century, which impacted their economy and social life (Milano, Baggio and Piattelli, 2011). The Internet and technology have an undeniable impact on the travel and tourism sector. The advent of computerized reservation systems,

followed by the development of global distribution systems (GDS), the development of the Internet and other factors all contributed to a qualitative shift in the supply and demand in the tourism sector (Buhalis and Law, 2008).

Nowadays, the most powerful online networking tool is social media. Social media has been defined as “internet-based applications that carry consumer-generated content” (Xiang and Gretzel, 2010, p. 180). Social media platforms such as blogs, microblogs, social networks, websites for sharing photos and videos, rating services, etc. are used to share opinions (Mayfield, 2008). Traditional marketing techniques were replaced by social media marketing. Digital advertisements on social media are more reliable than those on TV, radio and newspapers (Li and Darban, 2012). Searching for travel information, making travel decisions, communicating and recollection of travel experiences have all been significantly impacted by the development of social media, search engines and mobile technologies (Leung et al., 2013; Xiang and Gretzel, 2010). Social media has become an essential tool for many travelers (Lu, Chen and Law, 2018; Bilgihan et al., 2016; Law, Buhalis and Cobanoglu, 2014).

Tourism has changed dramatically since the internet enabled travelers to search, book and plan their trips without having to deal with travel agencies (Prabu, Balamurugan and Vengatesan, 2019). With the advent of digital technology, the tourism industry will soon change, resulting in a shift in the wants and needs of travelers in terms of tourism services and products (Kazandzhieva and Santana, 2019). The blockchain is a new technology that is changing all industries, including tourism (Tan et al., 2021; Yu et al., 2021; Önder and Treiblmaier, 2018).

Blockchain can be defined as a “a digital, decentralized and distributed ledger in which transactions are logged and added in chronological order with the goal of creating permanent and tamperproof records” (Treiblmaier, 2018, p. 547). Blockchain is the fundamental technology underlying the emerging cryptocurrencies including Bitcoin (Antonopoulos, 2014).

Since 2008, the cryptocurrency market has grown exponentially in terms of the number of new currencies, consumer base and transaction frequency (Dyhrberg, 2016) and it has emerged as a major economic force (McCoy and Rahimi, 2019). The total market capitalization surpassed \$1.5 trillion U.S. dollars in February 2021 (Voell, 2021). Studies have shown that cryptocurrency investments present a practical investment vehicle and that cryptocurrencies are a special asset that can diversify risk and boost returns in an investment portfolio (Li et al., 2021; Uddin et al., 2020; Ram, 2019; Henriques and Sadorsky, 2018). Although, the cryptocurrency market has a high level of volatility that affects investments. According to studies (Huynh, 2021; Wołk, 2020; Weng et al., 2018; Bollen, Mao and Zeng, 2011; Antweiler and Frank, 2004), social media platforms' user-generated content and market volatility are related.

Social media has an impact on our daily lives in addition to having a huge impact on the price of cryptocurrencies (Park and Lee, 2019). Most cryptocurrency businesses use social media as a marketing tool to communicate and educate their communities (Park and Lee, 2019). Additionally, market participants decide whether to buy or sell cryptocurrencies based on the news, rumors and official updates they share on social media (Garcia et al., 2014).

Huynh (2021) concluded that former US President Donald Trump's sentiment towards Bitcoin was a predictive factor for the cryptocurrency market after analyzing 13918 tweets between January 2017 and January 2020. When Elon Musk, the richest man in the world at the time, suddenly changed his Twitter status to #bitcoin on January 29, 2021, the price of bitcoin skyrocketed from \$32000 to \$38000 in a couple of hours, adding \$111 billion to its market capitalization (Ante, 2021).

Research Problem

Tourism industry has been hesitant to employ blockchain including (cryptocurrency) although the latter attracted global attention and its potential adoption revolutionized various industries (e.g., banking, retail, healthcare, supply chain). Although, cryptocurrencies' growing popularity and recognition, little is known about the contextual and psychological characteristics that influence tourists' intentions toward adopting blockchain technology such as cryptocurrency.

Regarding the effect of social media on blockchain, Abraham et al. (2018)'s study has investigated the effect of social media platforms on major cryptocurrencies, utilizing cryptocurrency price prediction using tweet volumes and sentiment analysis; a method for predicting changes in Bitcoin and Ethereum prices utilizing Twitter and Google trends data. In a related matter, Jain et al. (2018) have forecasted the price of cryptocurrencies using Tweets sentiment analysis, by predicting the two-hour price of cryptocurrencies on the basis of the social factors. Additionally, Narman, Uulu and Liu (2018) have examined the educational level of cryptocurrency investors via a profile analysis for cryptocurrency in social media. Moreover, Mittal et al. (2019) have explored the short-term Bitcoin price fluctuation prediction using social media and web search data, utilizing correlation among Bitcoin price and Twitter and Google search patterns. Finally, Narman and Uulu (2020) have studied the impacts of positive and negative comments of social media users to cryptocurrency, by analyzing the user's perspective on social media's positive and negative influence on cryptocurrencies using a specific platform of social media.

In relation to the influence of blockchain on social media, Guidi, (2020) have studied the relationship between blockchain and online social networks by proposing an overview of the main blockchain-based online social media platforms features and services as well as drawbacks. Additionally, Freni, Ferro and Ceci (2020), who analyzed 40 of emerging platforms, by investigating how blockchain technology is reshaping the social media scenario through transparency, value redistribution, ownership awareness, decentralization of data and censorship resistance through fixing social media with the blockchain. Moreover, in Hisseine, Chen and Yang (2022) have conducted a systematic literature review that elucidates the relationship between blockchain and social media covering the application of Blockchain technology in social media.

Concerning the impact of blockchain in tourism industry, Ozdemir et al. (2020) assessed the blockchain applications in travel and tourism industry by proposing a blockchain basics criteria set; that allows decision makers to compare various distributed applications (DAPPs). In a related issue, Valeri and Baggio (2021) have studied the impact of blockchain technology adoption on tourism by critically reflecting on the adoption of blockchain in tourism. Moreover,

Irannezhad and Mahadevan (2021) have considered blockchain as a new hope for the tourism industry by examining the impacts, opportunities and challenges of blockchain in the tourism and hospitality sector. Similarly, Önder and Gunter (2022) have suggested that blockchain is the future for the tourism and hospitality industry via exploring and identifying its different applications and opportunities for the tourism and hospitality industry, especially in light of COVID-19 pandemic.

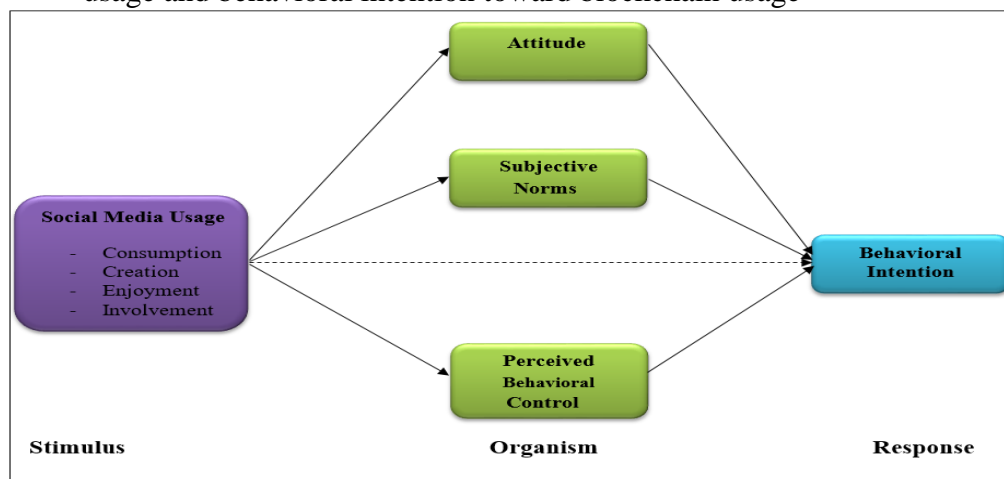
To fill this research gap, the aim of this research is to illuminate the interrelationships among tourists' social media usage, attitude, subjective norms, perceived behavioral control and behavioral intentions toward blockchain usage.

Study Objectives:

- 1- Studying the impact of social media usage on intention toward blockchain usage
- 2- Investigating the role of attitude between social media usage and intention toward blockchain usage
- 3- Identifying the role of subjective norms between social media usage and intention toward blockchain usage
- 4- Examining the role of perceived behavioral control between social media usage and intention toward blockchain usage

Study Hypotheses:

- 1- Social media usage has a positive effect on behavioral intention toward blockchain usage
- 2- Attitude mediates the relationship between social media usage and behavioral intention toward blockchain usage
- 3- Subjective norms mediate the relationship between social media usage and behavioral intention toward blockchain usage
- 4- Perceived behavior control mediates the relationship between social media usage and behavioral intention toward blockchain usage



Source: (Anser et al., 2019)

Fig. 1 Conceptual Framework

Literature review:

Social media and Tourism Industry:

The definition of social media has been the subject of much debate. Social media is constantly evolving and its applications develop (Zeng and Gerritsen, 2014). Obar and Wildman (2015) defined social media as “*an internet communication where users spread information through established online communities and networks*”.

Kaplan and Haenlein (2010, p.61) defined social media as “*a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user-generated content*”.

To put it simply, social media uses web-based technologies to build interactive platforms where individual users and communities share, edit, discuss and co-create user-generated content (Kietzmann et al., 2011).

Tourism is an information-intensive industry and hence it is critical to understand the change in technologies that impact the distribution and accessibility of travel-related information (Xiang and Gretzel, 2010). Over the last decade, social media has been a hot research topic in tourism and hospitality research (Rasul and Hoque, 2020; Nusair et al., 2019; Inversini and Buhalis, 2009). An important issue regarding the usage of social media for travel purposes is explaining that the formation of travel experiences of tourism customers in social media platforms consists of three stages of experiences as pre-travel, on the travel and post-travel (Milano, Baggio and Piattelli, 2011).

According to multiple studies (Xiang, Magnini and Fesenmaier, 2015; Öz, 2015; Cox, Burgess, Sellitto and Buultjens, 2009) found that it is in the pre-travel stage that the use of social media is more extensive. During this stage, tourists use social media to research their travel plans and learn about the destination, landmarks, accommodation options, trips and transportation (Öz, 2015; Fotis, Buhalis and Rossides, 2012; Cox et al. 2009). Travel reviews are essential in this phase of trip planning because they lower risk and enable tourist to imagine the destinations (Gretzel and Yoo, 2008). Though, social media is also used during the trip, to look up for travel related information on their vacation (Fotis et al. 2012). Travelers continue to use social media after their trip to share their experiences through reviews and photos (Fotis et al., 2012; Parra-López et al., 2012).

Thus, tourists choose social media channels as the main instrument for broadcasting their vacation encounters (Oliveira et al., 2020b). In the third quarter 2022, Facebook had more than 2.96 billion users worldwide (Statista, 2022); YouTube had over 2 billion users, (2021); Twitter had 330 million users (Lin, 2020).

Blockchain Technology, Cryptocurrency and Tourism Industry

Blockchain is an umbrella term for the system which describes the underlying technology of Bitcoin (Fosso et al., 2020).

According to Seebacher and Schüritz (2017, p.14) gives an in-depth definition of blockchain technology explains how the technology works:

“A blockchain is a distributed database, which is shared among and agreed upon a peer-to-peer network. It consists of a linked sequence of blocks, holding timestamped transactions that are secured by public-key cryptography and verified by the network community. Once an element is appended to the blockchain, it cannot be altered, turning a blockchain into an immutable record of past activity.”

Cryptocurrency

Baur, Bühler, Bick and Bonorden (2015) defined cryptocurrency as an electronic currency and more specifically, a decentralised distributed currency meaning that it is not controlled by central authority, it is also supported by a peer-to-peer system which enables direct payment transaction furthermore, it uses Internet which makes it fast and efficient as it also relies on cryptography to make its transactions very secure.

Despite the fact that technology is inseparably connected with today's tourism, there are many challenges and limitations. The application of collaborative technology in tourism is still filled with security, trust, privacy and liability issues. Modern technologies are required to solve these tourism-related problems as new, creative solutions are constantly developing. Blockchain technology has a lot to offer the travel sector in this context (Rejeb and Karim, 2019).

According to Gelter (2017, p.74) blockchain technology (BCT) is “A revolutionary technology that will transform financial transactions in the future and greatly affects the tourism industry”.

The tourism industry has led the way in terms of Blockchain and cryptocurrency adoption. For instance, Tripio Company based in China, which was created within a Blockchain framework and has a technological system characterized by reliable transactions, a sustainable incentive mechanism and a lower order cost. By using Blockchain technology, it is possible to save time by locating passenger data in a token, which simplifies voucher management, streamlines operations and reduces transaction costs (Karinsalo and Halunen, 2018).

Impact of Social Media on Cryptocurrency

Many people's lives are influenced by social media every day, but it also has a major impact on cryptocurrency market prices (Park and Lee, 2019; Mai et al., 2018). Nearly all cryptocurrency businesses use social media as a marketing tool to reach, inform and engage with their users and investors (Park and Lee, 2019).

The effect of social media on the cryptocurrency markets has recently been studied by a wide range of academics and researchers. The study by Abraham et al. (2018) is considered significant in this field because it investigates the effect of social media platforms on major cryptocurrencies.

Narman and Uulu (2020) in their research paper, Impacts of Positive and Negative Comments of Social Media Users to Cryptocurrency, they analyzed the user's perspective on social media's positive and negative influence on cryptocurrencies. Additionally, they discovered that a higher percentage of people who are positive about investing in digital bitcoin is higher than the percentage of those who are negative. They used Reddit.com to serve as the source of raw data for the study. Moreover, they assist new investors in understanding how users relate to price and mood shifts.

Here are some details about how social media can influence cryptocurrency pricing which are as follows:

The Power of the Trend

Nowadays, people tend to follow the latest trends. If a famous person says something about a certain thing, it becomes a new trend. Cryptocurrency is also a part of this.

A TikTok trend caused an unusual increase in the price of Dogecoin (DOGE) in July 2020. The #DogecoinTikTokChallenge began when a TikTok user named jamezg97 uploaded a video intended to pump the value of Dogecoin to \$1. The video had half a million views in five days: “Let’s all get rich! Dogecoin is practically worthless. There are 800 million TikTok users once it hits 1 dollar, you’ll have \$10,000. Tell everyone you know” (Bambrough, 2020; Winck, 2020; Garg, 2020).

Social media influencers: Billionaires and Big Companies

Social media influencers have a significant impact in advertising and introducing products and services to their audiences (Sokolova and Kefi, 2020).

For instance, Elon Musk's 44.7 million Twitter followers are known to affect the sentiment of Bitcoin and Dogecoin with his tweets (Ante, 2021). Billionaire Elon Musk, the founder of Tesla. Tesla, an electric vehicle and renewable energy company, declared in the beginning of February 2021 that it had purchased 1.5 billion USD worth of Bitcoin. Moreover, they stated that they will accept BTC as payment for their products (Paxful Team, 2021). After that, BTC reached a record high and first-ever break through the 44,000 USD barrier.

Theory and Hypothesis Development

Stimulus-organism-response theory (S-O-R)

The stimulus-organism-response (S–O–R) theory demonstrates that environmental cues (stimuli) could arouse a person’s internal cognitions and affections (organism), which drives certain behaviors (response) (Lin and Lo, 2016; Mehrabian and Russell, 1974).

In the current study, the social media usage serves as the “stimulus”. Additionally, organism refers to internal, intervening emotional and cognitive processes that take place between a stimulus and a person's behavior, attitude, subjective norms and perceived behavioral control act as the organism, response refers to intention to cryptocurrency usage.

Hypothesis of the Study

Social media usage and behavioral intention toward blockchain usage

Nowadays, businesses have begun to use social media to gain a competitive advantage. It promotes open communication, which aids in knowing and understanding customers' needs, motivating them to respond effectively to those needs (Tajudeen, Jaafar and Ainin, 2018; Parveen, Jaafar and Ainin, 2016).

In the research conducted by Okello Candiya Bongomin et al. (2018), found a link between people's use of social networking sites and their intentions to use mobile

money. Furthermore, Anser et al. (2019) indicated that individuals' social media usage is positively and significantly related to their intentions to adopt Bitcoin.

Hence, it is hypothesized that:

Social media usage has a positive effect on behavioral intention toward blockchain usage

Attitude mediates the relationship between social media usage and behavioral intention toward blockchain usage

Attitude (ATT) is defined as: “a learned predisposition to respond in a consistently favorable manner with respect to a given object” (Fishbein and Ajzen, 1975, p. 6). Although, social media is an important component in creating attitude because both are concerned with social issues, since social media users follow many communities. Their social media usage affects their long-term attitudes or intentions (Bedard and Tolmie, 2018). Abzari, Ghassemi and Vosta (2014) found that the user-generated communications of other customers in social media have a positive and significant effect on brand attitude. Moreover, Schaupp and Festa (2018) found that individuals' attitudes are positive and significant toward adoption of cryptocurrency

Hence, it is hypothesized that:

Attitude mediates the relationship between social media usage and behavioral intention toward blockchain usage

Subjective norms mediate the relationship between social media usage and behavioral intention toward blockchain usage

Subjective norms (SNs) are “the perceived social pressures an individual face when deciding to perform or not to perform the behavior in question” (Ajzen, 1991, p. 188). This component of the TPB is a function of normative beliefs, related to hopes and desires of the referents considered essential to an individual, to perform the behavior or not. SNs is also variable based on motivation to comply, which is the motivation of individuals to fulfill the expectations from others (Fishbein and Azjen, 2005). The research conducted by Santoso (2021), proved social media usage has a positive and significant effect on subjective norms (SNs).

In cryptocurrency's case, as the sudden rise in cryptocurrency particularly Bitcoin has attracted more investors to jump on board (Gao, Clark and Lindqvist, 2015). Users either rely on social media for information or blindly follow investors. The story of the 20-year-old Norwegian who found his long-forgotten Bitcoin was worth a significant sum of money, then he traded it for an apartment has inspired cryptocurrency investors to follow in his footsteps (Popper, 2013). Moreover, other studies (Schaupp and Festa, 2018) found that subjective norms have a positive and significant effect on intention to use and adopt cryptocurrency.

Thus, it is hypothesized that:

Subjective norms mediate the relationship between social media usage and behavioral intention toward blockchain usage

Perceived behavior control mediates the relationship between social media usage and behavioral intention toward blockchain usage

Perceived behavioral control (PBC) refers to the perceived ease or difficulty of executing the behavior, influenced by past experiences and the anticipated obstacles (Ajzen, 1991). According to Johe and Bhullar (2016) perceived behavioral control can be used to predict one's intentions for an action.

Soomro, Shah and Abdelwahed (2022), found a significant positive influence of PBC on intention to adopt cryptocurrency. Additionally, Walton and Johnston (2018) found a significant relationship between PBC and intention to transact in a cryptocurrency.

Thus, it is hypothesized that:

Perceived behavior control mediates the relationship between social media usage and behavioral intention toward blockchain usage

Methodology:

Participants' demographics

The respondents' demographic data and characteristics are summarized using basic descriptive statistics such as frequencies and percentages in order to present a description of the collected data. Table (1) illustrates the frequency and percentage for demographic features of respondents in the study sample.

Table (1): Demographic Data analysis

Variables Percentages	Categories	Frequencies	Percentages
Gender	Male	199	57%
	Female	153	43%
Age	From 21 to 30	40	11%
	From more 31 to 40	100	29%
	From more than 41 to 50	152	43%
	50 more than 50	60	17%
Education level	High school	130	37%
	Bachelor degree	172	49%
	Master degree	27	8%
	Doctoral degree	23	7%
Income	Less than \$ 1800	35	10%
	From \$ 1800 - \$ 3600	85	24%
	From \$ 3601 - \$ 5200	89	25%

	From \$ 5201 - \$ 8100	77	22%
	From \$ 8101 - \$ 11800	54	15%
	More than \$ 11800	12	4%
Purpose of visit	Holiday and sightseeing	169	48%
	Business/Conference	67	19%
	Visiting friends/relative	78	22%
	Education	27	8%
	Others	11	3%
Nationality	Russia	73	21%
	Germany	65	19%
	China	23	6%
	United States (U.S.A)	50	14%
	United Kingdom (U.K)	53	15%
	Italy	56	16%
	France	32	9%

Table 1 shows the demographic information of survey respondents. They represent several countries from European and Asia region, with most tourists who are willing to use cryptocurrency during their visit to Egypt coming from Russia (21%), Germany (19%), Italy (16%), United Kingdom (15%) and United States (14%). When it comes to gender, the sample population is fairly balanced with (57%) being males and (43%) being females.

Regarding the age of the respondents (43%) belong to the age group of 41-50 years old, (29%) to the age group 31 – 40 years old, (17%) to the age group 50 more than 50 years old and (11%) to the age group 21 – 30 years old.

With regard to educational level, the sample seems to be composed by highly educated individuals, with more than (49%) of participants had a bachelor's degree, followed by those with a high school diploma (37%), (8%) of participants had master's degree and (7%) with a doctoral degree.

For income, the highest percentage was observed in the category between \$3601 - \$5200 (25%), followed by income between \$1800 - \$ 3600 (24%) and between \$ 5201 - \$ 8100 (22%).

Tourist come for different purposes. The purposes of the visitors are broadly divided into five types. Out of the five major purposes, holiday and sightseeing is the major purpose that cover about (48%) of the total tourists visiting Egypt. Holiday and sightseeing has been one of major purpose of visit as Egypt has world famous sightseeing such as the Sphinx, Pyramids of Giza and Temples of Luxor, where tourists can enjoy their holiday as the availability of year round beach tourism in Red Sea resorts and other actives.

Table (2): Social Media Usage

NO.	Indicators	N	Disagree = (1)		Neutral = (2)		Agree = (3)		Mean	Std. Deviation	Skewness	Kurtosis
			Frequency	%	Frequency	%	Frequency	%				
SMU 1	Before traveling I searched for travel information on social media websites	352	68	19.3	20	5.7	264	75	2.56	.797	-1.342-	-.067-
SMU 2	Before traveling I read other travelers' experiences and tips	352	69	19.6	26	7.4	257	73	2.53	.802	-1.263-	-.245-
SMU 3	While traveling I search for travel information on social media websites (for example, things to do or where to eat)	352	60	17	35	9.9	257	73	2.56	.767	-1.343-	.049
SMU 4	After traveling I post photos on social media websites	352	62	17.6	19	5.4	271	77	2.59	.771	-1.478-	.327
SMU 5	After traveling I write reviews of	352	59	16.8	35	9.9	258	73.3	2.57	.763	-1.362-	.108

	activities/attractions on social media websites												
SMU 6	After traveling I write reviews of the place and/or monuments I visited on social media websites	35 2	34	9. 7	2 3	6. 5	29 5	83 .8	2.7 4	.6 21	- 2.19 7-	3.21 9	
SMU 7	Using social media websites for travel purposes is fun	35 2	12 8	36 .4	4 6	13	17 8	50 .6	2.1 4	.9 23	- .286 -	- 1.77 0-	
SMU 8	Using social media websites for travel purposes stimulates my curiosity	35 2	12 8	36 .4	4 3	12 .2	18 1	51 .4	2.1 5	.9 26	- .304 -	- 1.77 1-	
SMU 9	I consider the use of social media for travel purposes makes me happy	35 2	12 3	34 .9	4 6	13 .1	18 3	52	2.1 7	.9 18	- .344 -	- 1.73 0-	
SMU 10	Social media is relevant	35 2	92	26 .1	4 8	13 .6	21 2	60 .2	2.3 4	.8 66	- .720 -	- 1.28 2-	
SMU 11	Social media is exciting	35 2	78	22 .2	3 2	9. 1	24 2	68 .8	2.4 7	.8 33	- 1.05 1-	- .731 -	
SMU 12	Social media is Interesting	35 2	11 7	33 .2	5 2	14 .8	18 3	52	2.1 9	.9 05	- .379 -	- 1.67 7-	
Total									2.4 17	.5 82	- .749 -	- .487 -	

By observing Table (2), it is clear that social media is predominantly used after traveling and that the total mean regarding social media usage within international tourists is (2.417) and its total standard deviation is (0.582). By comparing the total mean value to the Likert Scale, it is found that the value of the total mean is located between the values {Neutral (2)} and {Agree (3)}, but it is found that the value of the total mean is closer to {Agree (3)} which indicates the respondents' agreement of social media usage within international tourists.

Table (2) shows results regarding social media usage variables that includes 12 items in which statement of SMU6 has highest frequency score (83.8 %) and took the first place, statement of SMU4 has taken the second place with frequency score (77%), statement of SMU1 has taken third place with frequency score (75%), while statements of SMU2,SMU3 and SMU5 are placed in the fourth place as they are similar in the frequency score (73%), statement of SMU11 is in the fifth place with frequency score (68.8%), statement SMU10 is in sixth place with frequency score (60.2%), statements SMU9 and SMU12 are in seventh place with frequency score (52%), statement of SMU8 is in eighth place with frequency score (51.4%), statement of SMU7 is in last place with frequency score (50.6%).

From the previous table it was found that the results agreed with Milano, Baggio and Piattelli (2011) in the issue regarding the usage of social media for travel purposes is explaining that the formation of travel experiences of tourism customers in social media platforms consists of three stages of experiences as pre-travel, on the travel and post-travel. Also this results cope with multiple studies (Xiang, Magnini and Fesenmaier, 2015; Öz, 2015; Cox, Burgess, Sellitto and Buultjens, 2009) found that it is in the pre-travel stage that the use of social media is more extensive. Yoo and Gretzel (2016) found that users' search for information on social media websites affects their subsequent travel-related decisions. Most users who use social media admit that the information they find influences their travel plans.

So this study indicates that social media usage has emerged as the go-to resource for information on travel destinations and service providers and a key tool for the marketing of tourism services.

Table (3): Attitude (ATT)

No.	Indicators	N	Disagree = (1)		Neutral = (2)		Agree = (3)		Mean	Std. Deviation	Skewness	Kurtosis
			Frequency	%	Frequency	%	Frequency	%				
AT T1	Using cryptocurrency in my destination visit is enjoyable	352	68	19.3	46	13.1	238	67.6	2.48	.799	1.091-	-.544-
AT T2	Using cryptocurrency in my destination visit is pleasant	352	119	33.8	70	19.9	163	46.3	2.13	.888	.247-	1.689-
AT T3	Using cryptocurrency in my	352	112	31.8	54	15.3	186	52.8	2.21	.897	.426-	1.626-

	destination visit is worthwhile												
AT T4	Using cryptocurrency in my destination visit is satisfying	35 2	78	22. 2	4 3	12. 2	23 1	65. 6	2.43	.83 1	- .959	- -	- -
AT T5	Using cryptocurrency in my destination visit is fascinating	35 2	12 2	34. 7	6 7	19	16 3	46. 3	2.12	.89 4	- .231	- -	- 1.72 1-
AT T6	Using cryptocurrency in my destination visit is rewarding	35 2	11 9	33. 8	6 9	19. 6	16 4	46. 6	2.13	.88 9	- .253	- -	- 1.69 1-
Total									2.24 9	.72 1	- .601	- -	- 1.08 2-

The results shown in table (3) indicates that the participants' total mean of attitude of participants toward cryptocurrency usage is (2.249) and its total standard deviation is (0.721). By comparing the total mean value to the Likert Scale, it was found that the total mean value is between the values {Neutral (2)} and {Agree (3)}, but it is found that the value of the total mean is closer to {Agree (3)} which emphasis the respondents' agreement on the respondents' attitude toward cryptocurrency usage.

It is obvious from table (3) presents the frequencies of responses regarding attitude variables to cryptocurrency, which includes sixth sentences. As for sentence ATT1 has the highest frequency score (67.6%), sentence ATT4 its frequency score is (65.6%) that came secondly, sentences ATT2, ATT5 and ATT6 are approximately has the same frequency score (46%) and it ranked thirdly, while sentence ATT3 ranked lastly as its frequency score is (52.8%).

In the case of attitude toward cryptocurrency adoption, results contested with Yelowitz and Wilson (2015) illustrated that people are motivated to invest in Bitcoin or other cryptocurrencies through the profit from Bitcoin investments and politically charged aspirations as the price of Bitcoin has increased by more than 1000% in less than two years, according to data from Investing.com (2018). Previous researches demonstrates that attitudes are a strong predictor of behavioral intentions. For instance, Shin (2019) assumed that attitude toward blockchain has a positive influence on the intention to adopt blockchain. Moreover, Schaupp and Festa (2018) found that individuals' attitudes are positive and significant toward adoption of cryptocurrency.

Table (4): Subjective Norms (SNs)

No.	Indicators	N	Disagree = (1)		Neutral = (2)		Agree = (3)		Mean	Std. Deviation	Skewness	Kurtosis
			Frequency	%	Frequency	%	Frequency	%				
SNs1	Most people who are important to me think I should use cryptocurrency in my destination visit	352	109	31	45	12.8	198	56.3	2.25	.900	-.520-	-1.568-
SNs2	The people in my life whose opinions I value would approve my usage of cryptocurrency in my destination visit	352	118	33.5	69	19.6	165	46.9	2.13	.888	-.265-	-1.684-
SNs3	Most people who are important to me would use cryptocurrency in my destination visit	352	114	32.4	50	14.2	188	53.4	2.21	.903	-.427-	-1.643-
Total									2.198	.771	-.469-	-1.300-

The results shown in table (4) indicates that the participants' total mean of subjective norms of participants toward cryptocurrency usage is (2.198) and its total standard deviation is (0.771). By comparing the total mean value to the Likert Scale, it was found that the total mean value is between the values {Neutral (2)} and {Agree (3)}, but it is found that the value of the total mean is closer to {Agree (3)} which reflects the agreement of the respondents' subjective norms toward cryptocurrency usage.

Table (4) shows the frequencies score regarding subjective norms variables towards cryptocurrency adoption that includes three statements. From here, it can be induced that the item with the highest frequency score (56.3%) lies on the statement of SNs1. This means that most of the respondents strongly agree that

they should use cryptocurrency in their destination visit. The next highest frequency score (53.4%) obtained was highlighted from the statement SNs3 which means that majority of the respondents agreed that they would use cryptocurrency in their destination visit. Finally, the item with the statement SNs2 shows the lowest frequency score (46.9%). This indicates that the respondents agreed that they approve to use cryptocurrency in their destination visit. In addition to that, the overall standard deviation for each statement had been identified to range between 0.888 and 0.903.

The results are in line with research conducted by Rahadjeng and Fiandari (2020) found that subjective norms derived from recommendations made by the closest relatives have an impact on investment intention then, when making investment decisions, these recommendations are consulted as a source of information. Moreover, other studies (Schaupp and Festa, 2018) found that subjective norms have a positive and significant effect on intention to use and adopt cryptocurrency. Thus, it can be determined that recommendations and advice from closest environment are one of the elements that affect tourist interest in adopting cryptocurrency.

Table (5): Perceived Behavioral Control (PBC)

No.	Indicators	N	Disagree = (1)		Neutral = (2)		Agree = (3)		Mean	Std. Deviation	Skewness	Kurtosis
			Frequency	%	Frequency	%	Frequency	%				
PB C1	Whether or not to use cryptocurrency in my destination visit is completely up to me	352	110	31.3	37	10.5	205	58.2	2.27	.908	-.560-	-1.557-
PB C2	If I wanted to, I could use cryptocurrency in my destination visit is completely up to me	352	123	34.9	59	16.8	170	48.3	2.13	.904	-.267-	-1.728-
PB C3	I completely control over using cryptocurrency in my destination visit is	352	114	32.4	55	15.6	183	52	2.20	.899	-.396-	-1.649-

	completely up to me											
Total									2.1 99	.84 6	- .42 8-	- 1.54 5-

The results shown in table (5) demonstrated that the total mean participants' agreement of perceived behavioral control toward cryptocurrency usage is (2.199) and its total standard deviation is (0.846). By comparing the total mean value to the Likert Scale, it was found that the total mean value is between the values {Neutral (2)} and {Agree (3)}, but it is found that the value of the total mean is closer to {Agree (3)} which indicates the agreement of the respondents' perceived behavioral control toward cryptocurrency usage.

Table (5) displays the frequency score for perceived behavioral control variables towards cryptocurrency adoption, which includes three statements. Phrase number one has the highest frequency score (58.2%) of perceived behavioral control, then phrase number three (52%) and phrase number two has the lowest frequency score (48.3%).

Table (6): Behavioral Intention (BI)

No .	Indicators	N	Disagree = (1)		Neutral = (2)		Agree = (3)		Mean	Std. Deviation	Skewness	Kurtosis
			Frequency	%	Frequency	%	Frequency	%				
BI 1	I intended to use cryptocurrency in my next destination visit	352	115	32.7	65	18.5	172	48.9	2.16	.890	-.323-	-1.663-
BI 2	I plan to use cryptocurrency in my next destination visit	352	127	36.1	76	21.6	149	42.3	2.06	.885	-.122-	-1.715-
BI 3	I want to use cryptocurrency in my next destination visit	352	128	36.4	76	21.6	148	42	2.06	.885	-.111-	-1.718-
BI 4	I probably will use cryptocurrency in my next destination visit	352	125	35.5	59	16.8	168	47.7	2.12	.905	-.244-	-1.741-
Total									2.100	.724	-.347-	-1.273-

The results shown in table (6) demonstrated that the total mean participants' agreement of behavioral intention toward cryptocurrency usage is (2.100) and its total standard deviation is (0.724). By comparing the total mean value to the Likert Scale, it was found that the total mean value is between the values {Neutral (2)} and {Agree (3)}, but it is found that the value of the total mean is closer to {Agree (3)} which indicates the agreement of the respondents' behavioral intention toward cryptocurrency usage.

In table (6) the first item with the highest frequency (48.9%) is seen in the statement BI1. This indicate that the respondents have the intention to use cryptocurrency in their next destination visit. Other than that, the item with the second highest frequency (47.7%) is seen in the statement BI4, which implies that most of the respondents are probably will use cryptocurrency in their next destination visit. Besides that, the items with the third highest frequency are the

two statements of BI2 and BI3 which they have approximately the same frequency (42%) and implies that most of the respondents are looking forward to use cryptocurrency in their next destination visit. It is also worth noting that overall, the standard deviation for each statement ranges between 0.885 and 0.905.

According to, Nadeem et al. (2021) that people intend to use cryptocurrencies to satisfy a variety of needs, including cross-border payments, as an alternative form of payment and as a medium of exchange and additionally, Nkwabi (2021) also stated that Bitcoin can be used to enable free, fair and transparent trading.

So, the respondents are looking forward to use cryptocurrency in their next destination visit where Nadeem et al. (2021) and Nkwabi (2021) found that cryptocurrency people intend to use it as it provides many benefits to its users.

Hypotheses Testing

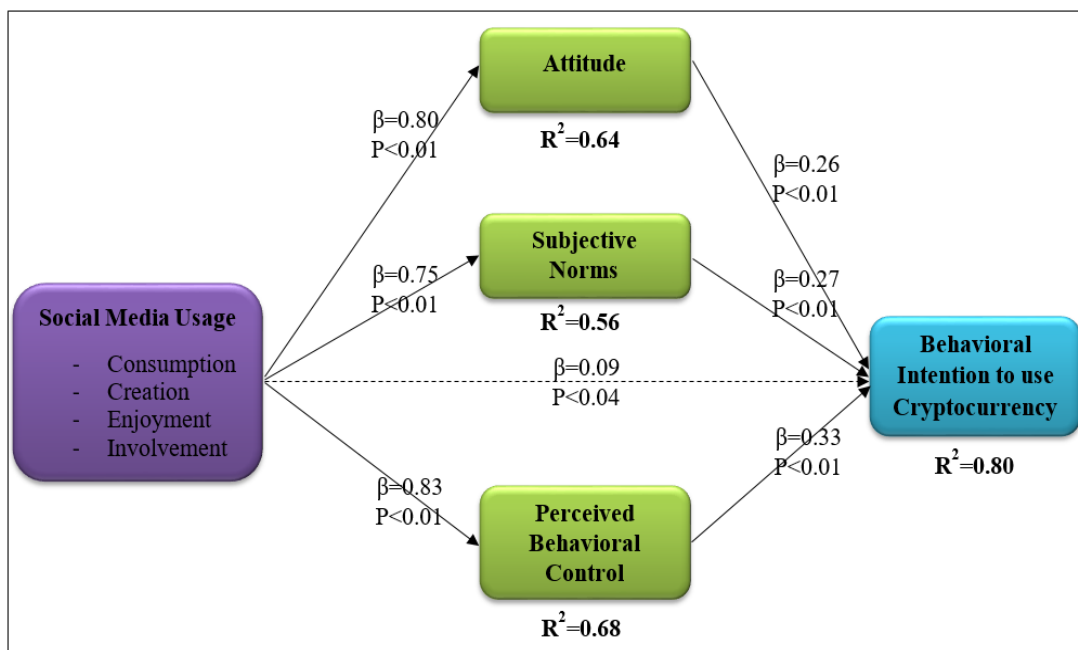


Fig. (2) Model Structurer

The conceptual framework in Figure (2) revealed that all 4 hypotheses are supported.

Results indicate that individuals' social media usage (consumption, creation, enjoyment and involvement) is positively impacting their behavioral intention ($\beta = 0.33$ and $p < 0.01$), which supports the first hypothesis. Social media usage, attitude, subjective norms and perceived behavioral control explains 80% of the variance of behavior intention ($R^2 = 0.80$).

Results also reveal that social media usage is positively and significantly influences individuals' attitude ($\beta = 0.80$ and $p < 0.01$), subjective norms ($\beta = 0.75$ and $p < 0.01$) and perceived behavioral control ($\beta = 0.83$ and $p < 0.01$). Social media usage explains 64 % of the variance in attitude ($R^2 = 0.64$), social media usage explains 56 % of the variance in subjective norms ($R^2 = 0.56$) and social

media usage explains 68 % of the variance in perceived behavioral control ($R^2 = 0.68$). In addition, attitude ($\beta = 0.26$ and $p < 0.01$), subjective norms ($\beta = 0.27$ and $p < 0.01$) and perceived behavioral control ($\beta = 0.33$ and $p < 0.01$) are positively and significantly influencing individuals' behavioral intention to cryptocurrency usage. So second, third and fourth hypotheses are supported.

The study found that social media usage (SMU) positively affected attitude (ATT), which is in line with the finding of a study on Pakistani social media users (Zafar et al., 2021), on USA college students (Schaupp and Festa, 2018), on local food purchases (Shin and Hancer, 2016) and. Social media can influence customers' attitude toward adoption of any technology. SMU positively impacts users' attitude towards behavioral intentions to adopt blockchain technology.

Secondly, the findings show that SMU positively affected subjective norms (SNs). This means that respondents believed that references of SMU have implications toward the social pressure on tourists when deciding to make a purchase. On the other hand, these findings are also consistent with the results of previous studies conducted by Santoso (2021), on Indonesian students.

Thirdly, the results show that SMU has a positive effect on perceived behavioral control (PBC) which is in line with the finding of a research on general public of China (Anser et al. 2019). The Perceived Behavioral Control (PBC) of an individual play a similar role because when an individual has a higher belief that he or she can use blockchain technology and has the necessary skills and strengths to use it, he or she would have more intentions towards adopting it.

Fourthly, it can be seen from the findings of this study that ATT positively affects behavior intention (BI). Previous research conducted by Abzari et al. (2014), on Iran Khodro company customers has shown that a customer's attitude towards a brand has a strong influence on purchase intention, as attitude is a suitable predictor of purchase intention. Behavioral intention is a psychological variable that acts as a moderator between attitude and actual behavior.

Fifthly, individuals who have higher subjective norms are more likely to adopt the use of cryptocurrencies (Schaupp and Festa, 2018). According to the findings of Soomro, Shah and Abdelwahed (2022), subjective norms significantly influence individuals' intentions to invest in cryptocurrencies. For investors, the opinions of those associated with and close to them are essential for encouraging the use of cryptocurrencies (Soomro et al., 2022). However, the findings of Mazambani and Mutambara's (2020) study show that subjective norms have no relationship with the intention to adopt cryptocurrency. Also studies conducted by Zamzami (2020) and Kamble et al. (2019) found that SNs has insignificant influence on behavior intention.

Sixthly, it can be seen from the findings of this study that PBC positively affects BI. This outcome aligns with the several researchers (Soomro et al., 2022; Schaupp et al., 2022; Mazambani and Mutambara, 2020; Walton and Johnston, 2018) who found the same results through the empirical investigations. According to the present results, the social media users think of themselves as capable of using cryptocurrency. As they are knowledgeable enough to use money in a responsible manner. They are sufficiently confident to use blockchain technology. Moreover, blockchain technology gave them complete control over how blockchain is used properly.

Finally, according to Anser et al. (2019), findings have shown that a significant positive relationship exists between the usage of social media of individuals and their intentions toward adopting Bitcoin. This is a significant finding for the study of cryptocurrencies and information systems because it reveals a brand-new factor that influences people's adoption of Bitcoin through use of social media. Individuals who are more active on social media are more likely to adopt Bitcoin currency. Previous studies have demonstrated that social media use increases people's knowledge and awareness of a variety of societal developments (Tritama and Tarigan, 2016; Turcotte, 2015). This results are also in line with the findings of a recent research study that found a link between individuals' use of social media and the rise in the value of Bitcoin (Mai et al., 2018). Extending on their findings, this study discovered social media to be a significant predictor of people's behavioral intentions towards blockchain technology.

Recommendations:

Based on the results of the study, which proved that social media is not activated in the pre-arrival stage, it is recommended to activate social media campaigns as a marketing weapon for blockchain usage in the pre-arrival stage. The study recommends to adopt blockchain technology in the Egyptian tourist destinations as the results of the study found that tourist attitude toward using cryptocurrency in the destinations they visit was positive. According to the results of the study, which proved that subjective norms mediate the relationship between social media usage and behavioral intention toward blockchain usage, it is recommended to advertise blockchain usage in the Egyptian tourist destinations after adopting and implementing such technology in the destinations. Moreover, the results of the study have shown that perceived behavioral control mediates the relationship between social media usage and behavioral intention toward blockchain usage and that tourists have the will to use cryptocurrency in the Egyptian tourist destinations.

Recommendations regarding the Egyptian Government:

In light of the global and regional changes and in the presence of competitors from Arab countries such as Emirates, it is recommended for the Egyptian Government to support its tourism industry by permitting the usage of blockchain technology in the transactions related to tourism activities.

Recommendations regarding the Egyptian General Authority for Tourism Activation:

It is recommended for the Egyptian General Authority for Tourism Activation to:

- 1) Activate the role of social media campaigns in different platforms to announce the adoption of blockchain technology in the Egyptian tourist destinations,
- 2) Keep social media sites up to date, and
- 3) Advertise for the use of blockchain technology and its advantages in tourism destinations through social media influencers.

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دور شبكات التواصل الاجتماعي كسلاح تسويقي لاستخدام سلسلة الكتلة في السياحة المصرية

الملخص العربي

تهدف هذه الدراسة إلى دراسة دور وسائل التواصل الاجتماعي كسلاح تسويقي لسلسلة الكتلة في صناعة السياحة بمصر واعتمدت الدراسة على المنهج الكمي وتم استخدام الاستبيان كأداة لجمع البيانات حيث تم توزيع عدد 500 استمارة على السائحين الدوليين وتم استعادة عدد 352 استمارة صالحة للتحليل الاحصائي بمعدل استجابة (70.4%) وتم استخدام برنامج SPSS version 24 كما تم استخدام الإصدار WrapPLS Version 7 الاحصائي لاكتشاف الدور الوسيط لبعض متغيرات الدراسة. وانتهت الدراسة إلى أن وسائل التواصل الاجتماعي هي أداة تسويقية مهمة ومؤثرة في سلوك السائحين نحو استخدام سلسلة الكتلة في صناعة السياحة من خلال بعض المتغيرات الوسيطة مثل السلوك و معيار شخصي و التحكم السلوكي المتصور. وأوصت الدراسة بضرورة الاعتماد على وسائل التواصل الاجتماعي كأداة تسويقية لتطبيقات التكنولوجيا الحديثة في صناعة السياحة في مصر وتفعيل دورها من خلال نشر الاعلانات والصور والفيديوهات على منصات وسائل التواصل الاجتماعي المختلفة التي تتضمن محتوى تسويقي عن سلسلة الكتلة ومزاياها وكيفية استخدامها

الكلمات الدالة : وسائل التواصل الاجتماعي ،سلسلة الكتلة ، عملة مشفرة ، النية السلوكية ،صناعة السياحة