Factors Accelerating the Acceptance of Digital Currencies among Bahraini Audience

Dr. Hussein Khalifa Hassan Khalifa*
Mr. Tiba Mohammed Al Dulaimi**

Abstract
New forms of technology now allow for more secure and seamless use of digital money. Digital money can be transferred and exchanged with technologies like credit cards, smartphones, and online cryptocurrency exchanges. The purpose of this article is to explore the respondents’ knowledge about digital currencies. In addition, it investigates the factors that influence respondents’ attitudes towards the use of digital currency. Lastly, the study attempts to examine respondents’ intent to use digital currency in the future. A cross-sectional online questionnaire-based survey design was used with a non-probability sample to explore the respondents’ perceptions of the above-mentioned aims. A total of 400 self-selected cases from Bahrain was investigated. More specifically, this study showed an increase in the total percentage of respondents’ knowledge about digital currencies, as the weighted average of the sample's knowledge was 1.68 out of 3, with a percentage of 56%. Moreover, the results indicated that most respondents believed that perceived usefulness is the most important factor for using digital currencies in online financial transactions. Then perceived ease of use, perceived enjoyment, web skills, and perceived control, respectively. Furthermore, the results showed an increase in the total percentage of respondents’ intention to use digital currencies in the future, as the weighted average of the sample's intentions was 2.10 out of 3, with a weighted percentage of 70%. With these findings, the study has important significance for academics by filling a vacuum in the literature regarding the variables influencing commercial adoption of digital currencies, as well as for practitioners in terms of decision-making on their acceptance and use.

Keywords: Bahraini public opinion; Digital Currencies; Online Financial Transactions; E-Cash.

* Lecturer in Radio and Television Department, Faculty of Mass Communication, Cairo University, Egypt.
** Researcher at Mass Communication and Public Relations Department, College of Communication and Media Technologies, Gulf University, Kingdom of Bahrain.
Introduction
Digital money, or digital currency, is any form of money or payment that exists only in electronic form. Digital money lacks a tangible form such as a bill, check, or coins. It is accounted for and transferred using electronic codes in computers. As technology becomes increasingly prominent, payments are becoming more digital, resulting in less use of tangible money (Corporatefinanceinstitute.com, 2020).

The emergence of digital currencies triggered a real revolution in the technological world today; As its details were reflected in many professionals in digital investment, traders and investors believe that this strategy is capable of achieving a huge historical summit and a radical life change. Despite all the setbacks, losses, and risks in this world, every time its return achieves record gains, driven by several developments. This made these digital currencies represent a huge trade, with a market value of about 1.6 trillion dollars nowadays (Coinmarketcap.com, 2022).

New forms of technology now allow for more secure and seamless use of digital money. Digital money can be transferred and exchanged with technologies like credit cards, smartphones, and online cryptocurrency exchanges. Cryptocurrency refers to a type of digital money that is secured by cryptography, making it almost impossible to counterfeit or double-spend. It exists through decentralized networks based on blockchain technology, which is essentially a ledger that is stored through a network of computers. The significant feature of cryptocurrencies is that they are not issued by a central bank or government, which makes them free from the hindrance of government intervention or manipulation (Corporatefinanceinstitute.com, 2020).

The development of social media also contributed to providing many advantages to its users, as it led to the expansion of the circle of knowledge and relationships. It also facilitated communication with each other around the world, refine personal ideas, access to experiences and skills, and access to new opportunities (Khalifa, 2020). These means are of great importance and are no longer just browsing, knowing the news, rather, these means help us to be more active on the social and economic level.
Therefore, these means have become utmost importance, as the promotion of methods and platforms has achieved a huge revolution in the world, and it has facilitated many programs and developed strategies and provided wonderful investment opportunities to promote in the easiest and least costly ways, which made it increasingly important for many business owners and investors for its large and essential role in increasing the promotion of digital currencies and brands.

Bahrain is witnessing a growing awareness in all fields, especially in the economic field. The strategy of the Central Bank of Bahrain in introduce the latest technologies to develop the customer experience. In addition, the Central Bank of Bahrain, in cooperation with JPMorgan and Bank ABC, launched a pilot project to provide instant cross-border payment solutions to take advantage of the most prominent technologies related to digital currencies, and many confirmed that these currencies are in line with the vision and strategy of the Central Bank of Bahrain to develop and improve Capabilities are continuously being provided to partners in the financial services sector in the Kingdom of Bahrain using the latest technologies (Al-Ain.com, 2022). Therefore, this study seeks to shed light on the factors affecting the respondents' attitudes to using the Internet in digital financial transactions in Bahrain.

**Problem Statement**

Digital currency, often known as cryptocurrencies, has emerged as a disruptive force in the global financial scene. Since the launch of Bitcoin in 2009, digital currencies have multiplied, with different versions and innovations changing traditional concepts of money and banking. The cypherpunk movement of the 1990s argued for cryptographic solutions to privacy and security problems in online transactions, which paved the way for the development of digital money. Satoshi Nakamoto's Bitcoin whitepaper established the notion of a decentralized digital currency based on blockchain technology, sparking a surge of innovation in the cryptocurrency industry. In the years that followed, alternative cryptocurrencies (altcoins) and blockchain-based platforms emerged, each with their own set of features and applications (Nakamoto & Bitcoin, 2008).

The Internet plays a major role in promoting digital currencies through social media and websites designed specifically to deal with digital financial transactions, which has become the talk of investors,
economists, and emerging individuals looking for ways to increase sources of income, and these currencies led to significant and substantial developments in the world of investment, which led it to reach a point of interest in the Bahraini society, especially in light of the downturn in the economy due to the Corona pandemic and the contraction it caused.

According to the Central Bank of Bahrain (CBB), there were more than 11.3 million digital transactions in Bahrain, valued at BD279.6 million ($743.7 million). The value of e-commerce and point-of-sale (PoS) payments rose by 50% in August 2021 compared to the same month last year. There were more than 53 million digital payments in the first half of 2021 (Prnewswire.com, 2021). Hence the research problem of this study is to examine the factors affecting respondents' attitudes towards using digital currencies in Bahrain.

**Research Questions**

Based on what was reviewed in the previous literature the study raises these questions:

1. To what extent do respondents know about digital currencies?
2. What are the factors that affect respondents' attitudes towards the use of digital currency?
3. To what extent do respondents intend to use digital currency in the future?

**Research Objectives**

The purposes of the study are:

1. To explore respondents' knowledge about digital currencies.
2. To investigate the factors that influence respondents' attitudes towards the use of digital currency.
3. To examine respondents' intent to use digital currency in the future

**Research Significance**

Bahrain has taken a rather advanced approach to digital currency and blockchain technologies. Bahrain is the first Arab country to establish legislation for dealing with Bitcoin. The Central Bank of Bahrain (CBB) has taken a proactive approach to regulating digital currency and associated activities. In 2017, the CBB announced laws on "open banking" and "cloud computing" that contained provisions for blockchain technology. These laws establish a framework for licensing and regulating bitcoin exchanges and other relevant firms. The following perspectives reflect the significance of the current research:
**Significance to theory**
This research will add to the literature of technology acceptance model by applying this model in a different context. It will provide a better understanding of factors that lead audience to accept digital currencies. This is supported by Abdel Moneim (2023) research on Egyptian youth attitudes towards digital currencies. In this research, he strongly recommended doing future studies on digital currencies using TAM.

**Significance to methodology**
This research used a cross-sectional online questionnaire-based survey design to explore the factors that assist Bahraini audience to accept digital currencies. As far as the researcher is aware, most of previous studies conducted on digital currencies were qualitative studies based on in-depth interviews. That is, it focuses on the perspective of experts and not the public. Thus, this study will add a new dimension to previous studies.

**Significance to knowledge**
This research will assist in raising awareness about digital currencies in the context of Bahrain especially with the practical steps taken by the Bahraini government to become a major regional hub for Bitcoin and digital currencies in the Middle East. This requires that society be fully aware of this newcomer. The Central Bank of Bahrain has established a regulated incubator for startups and projects based on digital currencies. This regulatory institution acts as an incubator for cryptocurrency exchanges and blockchain startups, allowing them to offer their services to a limited clientele while regulatory bodies refine the necessary laws.

**Literature Review**
Digital money, which includes cryptocurrencies such as Bitcoin and Ethereum, as well as new technologies like central bank digital currencies (CBDCs), is a revolutionary force transforming the global financial landscape. The academic study of digital money has advanced quickly, reflecting the field's dynamic character and the broad views it offers. In this **comparative literature review**, we look at and compare prior research on digital money, concentrating on major themes, methodologies, findings, developing trends, and multidisciplinary perspectives.
The history of digital money dates to the invention of the internet. There were difficulties getting the population to adopt the use of digital money in the early days; however, as people become more comfortable with technology, and the technology itself becomes more safe and secure, more people are now willing to utilize digital monies. PayPal is considered one of the first successful companies to bring the idea of easy-use digital financial transactions to mass adoption (Corporatefinanceinstitute.com, 2020).

Digital currency (digital money, electronic money, or electronic currency) is any currency, money, or money-like asset that is primarily managed, stored or exchanged on digital computer systems, especially over the internet. Types of digital currencies include cryptocurrency, virtual currency, and central bank digital currency. Digital currency may be recorded on a distributed database on the internet, a centralized electronic computer database owned by a company or bank, within digital files or even on a stored-value card (Al-Laham, Al-Tarwneh, & Abdallat, 2009).

Although they generally lack the traditional physical forms of fiat currency that you can hold in your hand, such as printed banknotes or minted coins, digital currencies exhibit characteristics that are like those of traditional currencies. However, they do have a physical form in an unconventional sense because of computer-to-computer and computer-to-human interactions, as well as the information and processing power of the servers that store and keep track of money. This unconventional physical form enables almost instantaneous transactions through the Internet and significantly reduces the cost associated with distributing notes and coins. For instance, in the UK economy, 79% of money is electronic, compared to 3% of notes and coins (in the form of bank deposits) (Bankofengland.co.uk, 2022). Usually not issued by a governmental body, virtual currencies are not considered a legal tender and they enable ownership transfer across governmental borders (Bis.org, 2020).

This kind of money can be used to purchase tangible goods and services, but it can also be restricted to use in particular groups, like in online games. Digital money can be decentralized, where the control over the money supply is predetermined or reached democratically, or centralized, where the control over the money supply is exercised by a single entity (such as a bank) (Web.archive.org, 2019).
The most common form of digital money is the money that is held by banks and central government deposits. The institutions hold a certain level of capital to weather economic stress; however, the money does not sit in a safe in some physical location. Instead, it is housed electronically in the form of digital money. Banks and central governments handle transactions, including millions or billions of currencies, but are devoid of the use of physical cash (Corporatefinanceinstitute.com, 2020). Cryptocurrency is another popular kind of digital money. As previously said, it is a type of digital money that resides on a blockchain network. Some examples of cryptocurrencies are Bitcoin, Ethereum, Ripple, and Litecoin.

Previous research on digital money has looked at a wide range of subjects and emphasis areas, demonstrating the topic's multidimensional character. One major subject is the technological foundations of digital money, such as blockchain technology, consensus procedures, and cryptographic security. These studies investigate the technical features of digital currency networks, including as scalability issues, security flaws, and protocol enhancements (Yermack, 2015; Kroll et al., 2013). Abdel Moneim (2023) identified the Egyptian youth's knowledge of digital currencies
and the sources through which young people knew information about the bitcoin currency, revealed the advantages and disadvantages of the bitcoin currency. The results showed that 31.3% know the Bitcoin currency well and 11.1% of the respondents indicated that they do not know the Bitcoin currency at all. 39.2% of the sample knew about the Bitcoin currency in 2019 when its price exceeded twenty thousand dollars, the social networking site Facebook topped the sources that individuals use to learn about the developments of the Bitcoin currency, 31.3% expressed their agreement to invest their money in the Bitcoin currency in exchange for 68.7% refused to invest their money in bitcoin.

Economic studies have studied the function of digital currency as a speculative asset, store of value, and means of exchange, analyzing factors affecting price volatility, market liquidity, and adoption trends (Cheah & Fry, 2015; Dyhrberg, 2016). Regulatory studies have concentrated on the legal frameworks surrounding digital currency, addressing concerns such as money laundering, tax evasion, and consumer protection (Frers, 2018). Social science views have investigated the socioeconomic consequences of digital money, including financial inclusion, empowerment, and the digital divide (Golumbia, 2016). Furthermore, emergent subjects such as decentralized finance (DeFi), initial coin offers (ICOs), and non-fungible tokens (NFTs) have received increased interest from researchers, indicating the dynamic growth of the digital currency ecosystem (Hassan et al., 2021).

Research approaches and methodologies used to examine digital money vary greatly, reflecting the field's multidisciplinary character and the vast range of research problems addressed. Quantitative techniques are commonly used to analyze transaction data, market trends, and network dynamics. These studies frequently use statistical analysis, econometric models, and network analysis approaches to gain insights into digital currency markets, trading behavior, and network dynamics (Glaser et al., 2014; Garcia et al., 2014). Qualitative research methods are also widely used, especially in social science and regulatory investigations. Interviews, surveys, and content analysis are used to investigate stakeholders' perspectives, regulatory settings, and socioeconomic consequences of digital currency (Maurer et al., 2013). Case studies analyze individual digital currency initiatives, platforms, or regulatory regimes, providing significant
insights into their creation, problems, and outcomes (Narayanan et al., 2016; Werbach, 2018). Furthermore, theoretical frameworks from economics, finance, computer science, and law are applied to conceive and evaluate many elements of digital money, offering theoretical foundations for empirical study and policy analysis (Nakamoto, 2008; Buterin, 2014).

Previous research on digital money has provided a wide range of results and insights, adding to our understanding of its technological, economic, legal, and social aspects. Technological studies have found scaling limitations, security weaknesses, and governance issues inherent with blockchain-based digital currencies (Bonneau et al., 2015; Eyal & Sirer, 2014). Economic research have found that digital money is a speculative asset, with substantial volatility and linkages with traditional financial assets (Kristoufek, 2015; Urquhart, 2017).

Regulatory studies have emphasized the complicated legal frameworks that regulate digital currency, with variances between jurisdictions in regulatory approaches, compliance requirements, and enforcement methods (Foley et al., 2019; European Commission, 2020). Social science views have revealed the potential of digital money to promote financial inclusion, empower underprivileged populations, and encourage alternative forms of economic organization (Maurer et al., 2013; Golumbia, 2016). Furthermore, increasing research on issues like as decentralized finance (DeFi), initial coin offers (ICOs), and non-fungible tokens (NFTs) has offered insights into unique financial instruments, fundraising processes, and cultural phenomena that shape the digital currency ecosystem (Hassan et al., 2021).

(Abdelmoneim, 2023) indicated that instrumental motivations were what push Egyptian respondents to accept the use of digital currencies, (27.8%) agreed that the price of Bitcoin is constantly rising, (23.2%) accepted that it is a good investment of money, (15.4%) endorsed that many international companies accept payment for their products in Bitcoin. According to Abu Salah (2018), the reasons for the respondents’ interest in using digital currencies were as follows: (88%) the support of the United Arab of Emirates government for dealing with digital currencies, (86.8%) the attitude toward using digital currencies as an official currency in the UAE, (86.4%) the ability to exchange digital currencies against paper currencies issued by the UAE government, (85.8%) high speed in
digital currency transfers, (84.4%) the presence of an approved legal framework for digital currencies in the UAE. Recent studies have reflected new patterns and advances in the digital currency scene, demonstrating the field's dynamic evolution. Decentralized finance (DeFi) has developed as an important topic of study, researching alternative financial products, decentralized exchanges, and governance systems applied to blockchain networks (Harvey et al., 2021). Initial coin offers (ICOs) and tokenization have attracted interest as fundraising strategies for entrepreneurs and projects, raising funds through the issue of digital tokens on blockchain platforms (Fisch & Momtaz, 2020; Howell et al., 2018). Non-fungible tokens (NFTs) have become popular as unique digital assets that reflect the ownership or authenticity of digital artworks, collectibles, and virtual goods. Environmental sustainability has arisen as a major field of investigation, with studies analyzing the carbon footprint, energy usage, and environmental consequences of bitcoin mining and blockchain networks (De Vries et al., 2022; Ghosh & Bouri, 2022). To address the complex issues and opportunities provided by digital money, researchers are increasingly using interdisciplinary viewpoints that combine ideas from economics, finance, computer science, law, sociology, and environmental studies (Gans, 2016; Arghistani, 2022; Callefi et al., 2024; Mo et al., 2023). Understanding the multidimensional nature of digital currency and its social ramifications requires interdisciplinary methods. Bringing together views from many disciplines broadens our knowledge of digital currency's technological, economic, regulatory, and social components. Collaboration among academics, industry, and regulatory agencies promotes cross-disciplinary discourse, information exchange, and policy development to meet the complex issues and possibilities presented by digital currency. Interdisciplinary research teams bring together varied experiences and viewpoints, allowing for comprehensive assessments and new solutions to manage the quickly changing digital currency ecosystem. Furthermore, multidisciplinary education and training are critical for equipping future generations of scholars, policymakers, and industry professionals to successfully address the multifaceted character of digital money. Finally, comparing prior studies on digital money reveals a diverse and ever-changing research environment that reflects the field's dynamic character. Key topics, methodology, findings, developing
trends, and multidisciplinary views help to provide a thorough grasp of digital currency's technological, economic, regulatory, and social elements. By combining insights from multiple fields and stakeholders, researchers help to solve the complex issues and possibilities presented by digital currency, informing legislative choices, industry practices, and academic debate. As the digital currency ecosystem evolves, multidisciplinary cooperation and study will be critical in determining its future path and fulfilling its promise to alter banking, technology, and society.

The comprehensive review emphasizes the multidisciplinary characteristics of digital currency research and serves as an invaluable resource for researchers, policymakers, and industry practitioners attempting to navigate the quickly changing terrain of digital finance.

**Research Gaps**

Miles (2017) has proposed a taxonomy of research gaps. It consists of seven core research gaps. Evidence Gap is when results from studies allow for conclusions in their own right but are contradictory when examined from a more abstract point of view (Jacobs, 2011; Müller-Bloch & Kranz, 2014; Miles, 2017). Knowledge Gap is when desired research findings do not exist (Jacobs, 2011; Müller-Bloch & Kranz, 2014; Miles, 2017). Practical Knowledge Gap is when professional behavior or practices deviate from research findings or are not covered by research (Jacobs, 2011; Müller-Bloch & Kranz, 2014; Miles, 2017). Methodological Gap is when a variation of research methods is necessary to generate new insights or to avoid distorted findings (Jacobs, 2011; Maller-Bloch & Kranz, 2014; Miles, 2017). Empirical Gap is when research findings or propositions need to be evaluated or empirically verified (Jacobs, 2011; Müller-Bloch & Kranz, 2014; Miles, 2017). Theoretical Gap is when theory should be applied to certain research issues to generate new insights. There is a lack of theory thus a gap exists (Müller-Bloch & Kranz, 2014). [Jacobs, 2011: Müller-Bloch & Kranz, 2014; Miles, 2017). Last but not least, Population Gap is when research regarding the population is not adequately represented or under-researched in the evidence base or prior research (e.g., gender, race/ethnicity, age, etc.) (Robinson, et al, 2011). The researcher identified these gaps in the prior research concerning digital currencies in the context of Bahrain.

1. Knowledge Gap where there is a scarcity of studies focusing on digital currencies in Bahrain. This gap stems from a lack of scholarly
focus and empirical study devoted to understanding the digital currencies acceptance in Bahrain.

2. Methodological Gap the researcher identified this gap where the majority of previous studies focused on qualitative measurements through in-depth interviews, but this study will rely on the quantitative research method. Through survey methodology, the research examined the factors that accelerate the acceptance of digital currencies in Bahrain.

3. Theoretical Gap where technology acceptance model was not used heavily in previous research. Therefore, other studies strongly recommended doing future research on digital currencies using TAM to generate new insights.

**Research Theoretical Model:**

**Technology Acceptance Model (TAM)**

TAM is a theoretical framework that has gained popularity in the field of information systems and technology studies, developed by Fred Davis in the late 1980s. It tries to understand the aspects that influence people's adoption and use of technology. Davis (1989) hypothesizes that perceived usefulness (PU) and perceived ease of use (PEOU) are important drivers of user acceptance of new technology. Perceived usefulness (PU) is defined as "the degree to which a person believes that using a particular system would enhance his or her job performance" (Davis, 1989). Perceived ease of use (PEOU), in contrast, refers to "the degree to which a person believes that using a particular system would be free of effort" (Davis, 1989). Scholars continue to utilize TAM to analyze and forecast user acceptance of various technologies, resulting in a more nuanced understanding of the complex interactions between individuals and technology adoption in corporate and consumer settings. TAM assumes that the user’s motivation can be explained by three factors: perceived ease of use, perceived usefulness, and attitude toward using, as shown in Fig.2.

**Figure 2**

*Technology Acceptance Model*
Applying TAM to guide this research.

The main purpose of this study is to explore the factors that accelerate acceptance of digital currencies among Bahrain audience. In alignment with this purpose, the appropriate theoretical model for this study was the basic form of Technology Acceptance Model. Davis (1989) hypothesizes that perceived usefulness (PU) and perceived ease of use (PEOU) are important drivers of user acceptance of new technology. The following items highlighted the reflection of TAM on research components: research objectives, research questions, research significance, data collection and questionnaire items.

Research Design

This study, in terms of knowledge and objective, is descriptive research which is used to describe characteristics of a population or phenomenon being studied. It addresses the "what" question about the characteristics of the population or situation being studied. The description is used for frequencies, averages, and other statistical calculations. Often the best approach, before writing descriptive research, is to conduct a survey investigation.

Furthermore, in terms of data type and analysis method, it is quantitative research that focuses on quantifying the collection and analysis of data. Quantitative data is any data that is in numerical form such as statistics, percentages, etc. The researcher analyses the data with the help of statistics and hopes the numbers will yield an unbiased result that can be generalized to some larger population (Khalifa, 2018).

To achieve the research objectives and answer the study questions, the survey methodology was used. Survey methodology studies the sampling of individual units from a population and associated techniques of survey data collection, such as questionnaire construction and methods for improving the number and accuracy of responses to surveys. Survey methodology targets instruments or procedures that ask one or more questions that may or may not be answered (Khalifa, 2022).

In survey research, there are several different designs, or overall structures, that can be used. The three general types are cross-
sectional, successive independent samples, and longitudinal studies. In this study, the researcher employed a cross-sectional research design, where a sample (or samples) is drawn from the relevant population and studied once. A cross-sectional study describes the characteristics of that population at one time. Still, it cannot give any insight into the causes of population characteristics because it is a predictive, correlational design (Qu, Wei, & Zhang, 2022).

Research Population
A research population is generally a large collection of individuals or objects that is the focus of a scientific query. It is for the benefit of the population that research is done. However, due to the large sizes of populations, researchers often cannot test every individual in the population because it is too expensive and time-consuming. A research population is also known as a well-defined collection of individuals or objects known to have similar characteristics. All individuals or objects within a certain population usually have a common, binding characteristic or trait (Explorable.com, 2022).

In research, there are two types of population: target population and accessible population. First, the target population refers to the ENTIRE group of individuals or objects to which researchers are interested in generalizing the conclusions. The target population usually has varying characteristics, and it is also known as the theoretical population. Second, the accessible population is the population in research to which the researchers can apply their conclusions. This population is a subset of the target population and is also known as the study population. It is from the accessible population that researchers draw their samples (Roussou, Stiakakis, & Sifaleras, 2020). According to the Information and eGovernment Authority in Bahrain, the population of Bahrainis in 2020 has reached 702,000 (iga.gov.bh, 2020).

Sample Design
A sample is simply a subset of the population. The concept of sample arises from the inability of the researchers to test all the individuals in each population. The sample must be representative of the population from which it was drawn, and it must have a good size to warrant statistical analysis. The sample is chosen from the sampling frame, which consists of a list of all members of the population of interest. The goal of a survey is not to describe the sample, but the larger population. This generalizing ability is dependent on the
representativeness of the sample. Each member of the population is termed an element (Whitley & Ball, 2002).

The main function of the sample is to allow the researchers to conduct the study on individuals from the population so that the results of their study can be used to derive conclusions that will apply to the entire population. It is much like a give-and-take process. The population “gives” the sample, and then it “takes” conclusions from the results obtained from the sample (Taherdoost, 2017).

There are frequent difficulties one encounters while choosing a representative sample. One standard error that results is selection bias. Selection bias results when the procedures used to select a sample result in over-representation or under-representation of some significant aspect of the population. For instance, if the population of interest consists of 75% females, and 25% males and the sample consist of 40% females and 60% males, females are under-represented while males are overrepresented (Explorable.com, 2022). To minimize selection biases, stratified random sampling is often used. This is when the population is divided into sub-populations called strata, and random samples are drawn from each of the strata, or elements are drawn for the sample on a proportional basis.

**Sample Technique**

As a result of the unavailability of the sampling frame, and not seeking to estimate statistically the characteristics of the population from the sample, convenience non-probability sampling techniques were used.

**Sample Size**

Determining the sample size to be selected is an important step in any research study. The important question that should be answered in all sample surveys is "How many participants should be chosen for a survey"? However, the answer cannot be given without considering the objectives and circumstances of investigations (Desu, 2012). This study relied on a confidence level (95%); According to this level, the standard degree becomes (1.96), the accuracy degree (5%), and the standard error ratio (0.5). According to these criteria, the appropriate sample size for this study was determined to be 400 respondents to represent the Bahraini target population correctly. The following table shows the characteristics of the study sample.
Table 1

Demographic Characteristics of the respondents.

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<thead>
<tr>
<th>Demographic Characteristics</th>
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<tbody>
<tr>
<td>Gender</td>
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<tr>
<td>Male</td>
<td>208</td>
<td>52%</td>
</tr>
<tr>
<td>Female</td>
<td>192</td>
<td>48%</td>
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<tr>
<td>Age</td>
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<tr>
<td>Less than 18</td>
<td>4</td>
<td>1%</td>
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<tr>
<td>18-35</td>
<td>224</td>
<td>56%</td>
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<tr>
<td>36-50</td>
<td>64</td>
<td>16%</td>
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<tr>
<td>Above 50</td>
<td>108</td>
<td>27%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
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<tr>
<td>Below High School</td>
<td>24</td>
<td>6%</td>
</tr>
<tr>
<td>High School</td>
<td>164</td>
<td>41%</td>
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<tr>
<td>B.Sc.</td>
<td>152</td>
<td>38%</td>
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<tr>
<td>M.A/ PhD</td>
<td>60</td>
<td>15%</td>
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Data Collection

There are several ways of administering a survey. Within a survey, different methods can be used for different parts. For example, interviewer administration can be used for general topics but self-administration for sensitive topics. The choice between administration modes is influenced by several factors, including 1) costs, 2) coverage of the target population (including group-specific preferences for certain modes, 3) flexibility of asking questions, 4) respondents’ willingness to participate and 5) response accuracy (Khalifa, 2018).

Different methods create mode effects that change how respondents answer, and different methods have different advantages. The most common modes of administration can be summarized as Telephone, Mail (post), Online surveys, Personal in-home surveys, Personal mall or street intercept surveys and Hybrids of the above (Ebert, Huibers, Christensen, & Christensen, 2018). The information analyzed below was obtained from a Google Forms-based online survey carried out in Bahrain in June 2023. A total number of 400 Bahrainis completed the online questionnaire.

Variables Measurement

The respondents' knowledge of digital currencies

To measure the respondents' knowledge of digital currencies, they were asked to evaluate their information about digital currencies. The
respondents were requested to respond by choosing between three options: Good (3 points), Average (2 points), and Poor (1 point). The scale was computed. The total score was ranged between (1-3) points. The weighted average of this scale was 1.68 out of 3. The weighted percentage was 56%.

Factors that affect respondents' attitudes toward the use of digital currency

This variable was measured through an aggregate scale about the factors that affect respondents' attitudes toward the use of digital currency. This scale was designed by taking advantage of previous studies. The scale included five latent variables Where a set of multi-dimensional sub-scales were designed in a five-point Likert style, which begins with strongly agree (5 points), agree (4 points), neutral (3 points), disagree (2 points), and strongly disagree (1 point). The scale includes the following sub-variables:

Web Skills: This sub-variable included three items. The respondents were asked to respond to each item according to the five-point Likert scale. The weighted average of this scale was 4.00 out of 5. The weighted percentage was 80%. The scale included the following items:

1. I know how to find what I want on the Web.
2. I know more about using the Web than most users.
3. I am not very skilled at using the Web.

Perceived Usefulness: This sub-variable included three items. The respondents were asked to respond to each item according to the five-point Likert scale. The weighted average of this scale was 4.38 out of 5. The weighted percentage was 87.6%. The scale included the following items:

1. Using digital currencies in the purchase process enhances my personal competence and effectiveness in shopping
2. Using digital currencies in the purchase process will be useful in buying what I want.
3. Using digital currencies in the purchase process will improve my shopping productivity.

Perceived Ease of Use: This sub-variable included three items. The respondents were asked to respond to each item according to the five-point Likert scale. The weighted average of this scale was 4.17 out of 5. The weighted percentage was 83.4%. The scale included the following items:
1. Using digital currencies in the purchase process is clear and understandable to me.
2. Using digital currencies in the purchase process is easy to learn.
3. It is not easy to use digital currencies in the purchase process.

**Perceived Enjoyment**: This sub-variable included two items. The respondents were asked to respond to each item according to the five-point Likert scale. The weighted average of this scale was 4.11 out of 5. The weighted percentage was 82.2%. The scale included the following items:
1. Using digital currencies in the purchase process is fun for its own sake.
2. Using digital currencies in the purchase process is boring.

**Perceived Control**: This sub-variable included three items. The respondents were asked to respond to each item according to the five-point Likert scale. The weighted average of this scale was 3.41 out of 5. The weighted percentage was 68.2%. The scale included the following items:
1. Using digital currencies in the purchase process makes me feel confused.
2. Using digital currencies in the purchase process makes me feel frustrated.
3. Using digital currencies in the purchase process makes me feel in control.

The scale was computed. The total score ranged between (14-70) points.

**Validity**
Based on the literature, some questions were generated to investigate the construct validity of research scales. Additionally, the scale was validated through face validity by seven experts to make sure that the questionnaire is valid and accurately measures what it claims to measure. The questionnaire included only relevant questions that measured known indicators of variables.

**Reliability**
The reliability of the data collection tool tells how consistently the items measure the construct. Also, it indicates its accuracy, consistency, and ability to provide similar results when repeated on the same study population and in the same conditions. The reliability of the questionnaire was determined by using the test-retest reliability, a measure of reliability obtained by administering the same test twice
over some time on a group of individuals. The scores from Time 1 and Time 2 can then be correlated to evaluate the test for stability over time. The reliability rate was 89%, which indicates a high percentage of reliability.

In addition, Internal consistency reliability was determined. Cronbach’s alpha coefficient was calculated to assess the internal consistency of the scales. Estimates greater than 0.7 were sought. Cronbach’s alpha coefficient was 0.876. It shows that each scale has a high-reliability coefficient. Also, the analysis reveals that the internal consistency reliability (Cronbach’s Alpha) of the scale items was found to be high which confirms that the items are highly reliable research instruments for measuring the variables.

Data Analysis
SPSS was used to extract percentages, frequencies, and weighted averages. Excel was also used to make figures.

Results and Discussion
The respondents’ knowledge about digital currencies.
Figure 3 shows the respondents’ knowledge about digital currencies in Bahrain. The overall results show an increase in the total percentage of respondents’ knowledge about digital currencies, as the weighted average of the sample’s knowledge was 1.68 out of 3, with a percentage of 56%.

The detailed results indicate a significant variation in the knowledge level of the respondents about the digital currency. The study released
that the majority of respondents believed that their knowledge about digital currencies was “poor” (47%). (38%) of the respondents who reported “average” in terms of their knowledge about digital currencies. Whereas only (15%) believed that their information about digital currencies was “good”. These results show that Bahrain media are required to expose audience more information about digital currency.

This result is consistent to some extent with the result of Karabulut and Sari (2022) research, which indicated that (51.6%) have knowledge of the Bitcoin currency. In addition, the results also showed that (37%) of the respondents who were faculty members at Turkish universities confirmed that the Bitcoin currency can be relied upon in financial transactions. Likewise, in Germany, a study by Ante et al., (2022) found that (83%) of the respondents were familiar with cryptocurrencies, (9.2%) owned a cryptocurrency at the time of applying the study, (56%) of the research sample had achieved positive returns from investing in cryptocurrencies while (29%) made negative returns from their use of cryptocurrencies.

In the Arab context, (Abu Salah, 2018) indicated that there is a high awareness of digital currencies among workers in companies that deal with digital currencies in the United Arab of Emirates. Bitcoin came at the forefront of the currencies that the respondents had a high knowledge of it. Respondents confirmed that digital currencies are commonly used in the United Arab of Emirates, and the positive attitudes toward it among citizens is increasing day by day. In Egypt, the results of (Abdelmoneim, 2023) research indicated that the Bitcoin currency is the most popular among the respondents compared to other digital currencies, as (88.9%) indicated that they are familiar with the Bitcoin currency.

Factors affecting respondents' attitudes towards using digital currency

Table 2 shows the respondents attitudes of what extent they agree with the listed statements about the factors that affect using digital currency in online financial transactions. Overall, the results showed that the factors explain (80.28% - weighted average of agreement 4.01 out of 5) of the reasons why respondents use digital currencies online. Based on the weighted average of agreement, the results indicated that most respondents believed that perceived usefulness is the most important factor for using digital currencies in online financial transactions.
(weighted average of agreement is 4.38 out of 5). In addition, the study discovered that the second major factor for using digital currencies is perceived ease of use (weighted average of agreement is 4.17 out of 5). Furthermore, the study found that the third major factor for using digital currencies perceived enjoyment (weighted average of agreement is 4.11 out of 5). Moreover, the results revealed that web skills factor is among the major reasons for using digital currencies (weighted average of agreement is 4.00 out of 5). Lastly, the study demonstrated that the perceived control factor, a few respondents expressed their agreement on it as a reason for using digital currencies (weighted average of agreement is 3.41 out of 5). It is not high compared to the other factors.

Table 2
Factors affecting respondents' attitudes towards using digital currency.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Indicators</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Weighted Average</th>
<th>Weighted percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web skills</td>
<td>I know how to find what I want on the Web</td>
<td>252</td>
<td>63</td>
<td>100</td>
<td>25</td>
<td>48</td>
<td>12</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>I know more about using the Web than most users</td>
<td>124</td>
<td>31</td>
<td>148</td>
<td>37</td>
<td>100</td>
<td>25</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>I am not very skilled at using the Web</td>
<td>40</td>
<td>10</td>
<td>52</td>
<td>13</td>
<td>68</td>
<td>17</td>
<td>116</td>
</tr>
<tr>
<td>Perceived Usefulness</td>
<td>Using digital currencies in the purchase process enhances my personal competence and effectiveness in shopping</td>
<td>184</td>
<td>46</td>
<td>148</td>
<td>37</td>
<td>44</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Using digital currencies in the purchase process will be useful in buying what I want.</td>
<td>256</td>
<td>64</td>
<td>120</td>
<td>30</td>
<td>24</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Using digital currencies in the purchase process will improve my shopping productivity.</td>
<td>216</td>
<td>54</td>
<td>132</td>
<td>33</td>
<td>32</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>Perceived Ease of Use</td>
<td>Using digital currencies in the purchase process is clear and understandable to me.</td>
<td>200</td>
<td>50</td>
<td>136</td>
<td>34</td>
<td>44</td>
<td>11</td>
<td>20</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Construct</th>
<th>Indicators</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>disagree</th>
<th>Strongly disagree</th>
<th>Weighted Average</th>
<th>Weighted percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Using digital currencies in the purchase process is easy to learn.</td>
<td>184</td>
<td>46</td>
<td>172</td>
<td>43</td>
<td>11</td>
<td>4.35</td>
<td>87</td>
</tr>
<tr>
<td></td>
<td>It is not easy to use digital currencies in the purchase process.</td>
<td>28</td>
<td>7</td>
<td>20</td>
<td>5</td>
<td>60</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Perceived Enjoyment</td>
<td>Using digital currencies in the purchase process is fun for its own sake.</td>
<td>208</td>
<td>52</td>
<td>148</td>
<td>37</td>
<td>36</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Using digital currencies in the purchase process is boring.</td>
<td>32</td>
<td>8</td>
<td>24</td>
<td>6</td>
<td>68</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Using digital currencies in the purchase process makes me feel confused.</td>
<td>36</td>
<td>9</td>
<td>52</td>
<td>13</td>
<td>108</td>
<td>27</td>
<td>13</td>
</tr>
<tr>
<td>Perceived Control</td>
<td>Using digital currencies in the purchase process makes me feel frustrated.</td>
<td>44</td>
<td>11</td>
<td>20</td>
<td>5</td>
<td>76</td>
<td>19</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Using digital currencies in the purchase process makes me feel in control.</td>
<td>92</td>
<td>23</td>
<td>76</td>
<td>19</td>
<td>104</td>
<td>26</td>
<td>88</td>
</tr>
</tbody>
</table>

These results are consistent with (Alqaryouti et al., 2019) research results which showed that (47%) of the respondents strongly agree that one of the reasons for acceptance digital currencies is the decentralization they provide, as there is no specific authority controlling the funds, and (88%) of respondents using digital currencies because it saved them from dealing with any authority. While the results of (Caldararo, 2018) focused on the technological factors in accepting digital currencies; (15%) of respondents believed that among the reasons for their use of digital currencies is the lack of disclosure of the user’s identity when making payment, the ease of conducting international transactions instantly (12%), the speed of completing transactions (10%), as well as control over funds (7%). In the Arab context, (Abdelmoneim, 2023) indicated that instrumental motivations were what push Egyptian respondents to accept the use of
digital currencies, (27.8%) agreed that the price of Bitcoin is constantly rising, (23.2%) accepted that it is a good investment of money, (15.4%) endorsed that many international companies accept payment for their products in Bitcoin. According to Abu Salah (2018) research results, the reasons for the respondents’ interest in using digital currencies were as follows: (88%) the support of the United Arab of Emirates government for dealing with digital currencies, (86.8%) the attitude toward using digital currencies as an official currency in the UAE, (86.4%) the ability to exchange digital currencies against paper currencies issued by the UAE government, (85.8%) high speed in digital currency transfers, (84.4%) the presence of an approved legal framework for digital currencies in the UAE.

The respondents’ intention to use the digital currency more in the future.

Figure 4 shows the respondents’ intention to use digital currencies in the future. The overall results show an increase in the total percentage of respondents’ intention to use digital currencies in the future, as the weighted average of the sample's intentions was 2.10 out of 3, with a weighted percentage of 70%.

The detailed results indicate a considerable variation in the respondents’ intention to use the digital currency more in the future. The study articulated that the majority of respondents reported that their intention to use digital currencies in the future was “slightly” (60%). (25%) of the respondents who reported “extremely”. Whereas only (15%) stated that they would not use digital currencies in the future at all. These results show that a great percentage of Bahrainis accept to use the digital currencies in the future.
These results are consistent with (Alqaryouti et al., 2019; Caldararo, 2018; Abu Salah, 2018; Abdelmoneim, 2023) previous studies which strongly supported that the future will be for using digital currencies in financial transactions.

Despite these results, a study by Abdelmoneim (2023) indicated a set of risks related to the use of digital currencies in financial transactions, including: (94.2%) possibility of declining in the price of Bitcoin, (88.1%) possibility of errors when using digital currencies, (85.3%) possibility of electronic hacking, (82.1%) possibility of losing money, (80%) security systems may not be strong enough, (79.2%) possibility of losing of personal privacy, and (72.3%) possibility of losing control over the privacy of payment information.

Conclusion

The advancement of technology has led to the creation of cashless societies in countries all over the world. One of the most important forms of electronic payment is electronic cash (e-cash), also known as digital cash. Digital currencies are quickly emerging Internet currencies that have piqued the curiosity of academics, governments, banks, and businesses. The purpose of this article is to offer a commercial viewpoint on the use of digital currencies for daily transactions. Considering digital currencies as a pioneering technological innovation, this study aims to explore the respondents’ knowledge about digital currencies. In addition, it investigates the factors that influence respondents’ attitudes towards the use of digital currency. Lastly, the study attempts to examine respondents' intent to use digital currency in the future. A cross-sectional online questionnaire-based survey design was used with a non-probability sample to explore the respondents’ perceptions of the above-mentioned aims. A total of 400 self-selected cases from Bahrain was investigated. More specifically, this study showed an increase in the total percentage of respondents’ knowledge about digital currencies, as the weighted average of the sample's knowledge was 1.68 out of 3, with a percentage of 56%. Moreover, the results indicated that most respondents believed that perceived usefulness is the most important factor for using digital currencies in online financial transactions. Then perceived ease of use, perceived enjoyment, web skills, and perceived control, respectively. Furthermore, the results showed an increase in the total percentage of respondents’ intention to use digital currencies in the future, as the weighted average of the sample's intentions was 2.10 out of 3, with a weighted percentage of 70%. With these findings, the study has important significance for academics by filling a vacuum in the literature.
regarding the variables influencing commercial adoption of digital currencies, as well as for practitioners in terms of decision-making on their acceptance and use.

**Limitations**

This research has been carried out in Bahrain with a non-probability sample of respondents. Consequently, the results cannot be generalized. Furthermore, one of the shortcomings is that it only included a small number of respondents from Bahrain. In addition, the study examined five independent variables, namely: web skills, perceived usefulness, perceived ease of use, perceived enjoyment, and perceived control. Therefore, there is a need for future studies to investigate the same issue with different variables.

**Future Scope**

Considering the limitations of the study, subsequent studies may investigate the same subject with many respondents with a probability sample, whether in Bahrain or in other Arab countries. As a result of that, the results can be generalized over the whole population. Furthermore, certain critical aspects have been overlooked in the current study. As a result, additional research into other concerns linked to social media in more than one Arab country will benefit. In addition, it will be fruitful to explore more variables related to social media and digital currencies.
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