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Blockchain Infrastructure Acceptance in the Gulf Cooperation Council Countries: An Overview

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Abstract

The technological development across the world has created innovative options that organizations and governments can use to facilitate their processes. The blockchain Infrastructure is one of the recent developments that has been considered by some franchises. The Gulf Cooperation Council (GCC) seeks to foster political and economic status of the Arabian Gulf region. The council considered the blockchain infrastructure to facilitate the connectivity and cooperation between its member states. The approach has been essential in economic development as it can provide a digital interaction. Blockchain is considered as a game changer for the future economies of the Gulf region since it facilitates the use of cryptocurrencies, which have surfaced as futuristic innovation for economic cooperation across the globe. Cryptocurrency is gained more increasing interest as a new type of technology that is potentially leader and destroyer for the payments industry on a global scale. However, there are many different usage scenarios of the cryptocurrency and it is future unclear. This study analyzes the potential of blockchain infrastructure acceptance in the Gulf Cooperation Council countries which considers its applicability to address economic as well developmental concerns of the Gulf region by allowing its member states an open, yet transparent platform of interaction.

Keywords: *GCC, Blockchain Infrastructure, Digital Finance, Cryptocurrency, Digital Leadership, Digital Training*

1. Introduction

The Gulf Cooperation Council (GCC) was formed initially as a regional intergovernmental organization to foster economic and political stability in Arabian Gulf region. Charter of GCC was signed in 1981 and presently, all Arab states of the Gulf region, except Iraq, are its members (Reiche, 2010). Interestingly, all its members states have monarchical system of politics with Qatar, Bahrain, and Kuwait having constitutional monarchy, Saudi Arabia and Oman running under absolute form of monarchy, while United Arab Emirates has federal monarchy. Moreover, Islam, which is a common religion in this region, defines sociopolitical norms of the region and has been a key factor that led towards the stabilizing of the council (Silander, 2015). The organization's presidential office rotates annually, and its heads work together with the member governments to facilitate social, political, cultural, as well as military cooperation in the region.

Science and technology have played an essential role in the transformation of GCC from the region's traditional reliance on oil toward tech-supported modern face. The establishment of quality technological infrastructure has promoted the development of this region to its current status (Ilu & Wallace, 2017). Essentially, globalization and increased the importance of economy and, eventually, has prompted GCC members to the formulate broad-based developmental objectives. Consequently, governments of the member states started investing resources in a system that would facilitate multidimensional cooperation in the region (Echague, 2010). The ultimate situation has been a technologically competitive region that promotes relationships between member states and leads to the realization economic as well as social stability (Al-Kuwari, 2009). With the passage of time, the GCC region has evolved from an oil-export dependent economy to a technologic-driven landscape. The transition not only opened new vistas of regional cooperation, but also provided ample opportunities for the development and promotion of innovative business practices.

The blockchain technology offers a decentralized computer-based network that connects users at the global or regional levels and to facilitate peer-to-peer communication and transactions. The network chain manages related operations in a smooth and systematic way by listing each transaction in an open ledger. Viewed as the gamechanger, blockchain technology is also influencing the GCC region with its utility as to offer alternate and multidimensional means of transacting businesses and disseminating vital information across channels (Wiseman & Anderson, 2012). For instance, it allows for the management of business transactions from a central point, and such a system eliminates intermediary bias that is often caused by institutional practices by analyzing and facilitating transactions in a decentralized yet standardized approach (Xu et al., 2016). The blockchain infrastructure, though costly, offers a reliable alternative to hectic and expensive regulatory processes that govern traditional financial mechanisms.

Cryptocurrency is a digital form of assets that allows people to trade or conduct different types of transactions on an online platform. Essentially, cryptocurrency comprises of block codes generated by complex interplay of computational power, and the technology that back it is fast and efficient, making its transactions adequately secured (Pass, Seeman, & Shelat, 2016). The system also involves the control of all transactions whereby all transfers and assets are verified before the end-to-end transfer (Delmolino, Arnett, Kosba, Miller, & Shi, 2015). Owing much to the security and its ease of utility, the blockchain infrastructure as well as the use of cryptocurrencies can offer members of GCC reliable and secure trade platforms (Ramanathan, 2007). Such a system will facilitate the realization of standard economic outcomes that favors all member states by eliminating numerous malpractices and weaknesses. Thus, the main platform for operating cryptocurrency is blockchain infrastructure as new technology.

2. Research background

Blockchain is a shared database, distributed along multiple nodes, which regulate encrypted entries and confirm the authenticity and credibility of each transaction whenever it is initiated (Halaburda, 2018). The 21st century has ushered a technological revolution and, consequently, contemporary societies are becoming increasingly digitized. Additionally, rise of globalization and the enhanced need for development has pushed governments and scholars to improvise their system of governance and diversify economic basis (Alqudsi-ghabra, Al-Bannai, & Al-Bahrani, 2011). However, transferring and reimbursing capital across national borders to facilitate multinational trade ventures has become increasingly difficult, owing much to the restrictions imposed by world bodies to obstruct terror financing. Hence, the development of a safe and efficient transactional mechanism was need of the hour when blockchain-backed cryptocurrency surfaced on the technological realm (Park, Pietrzak, Alwen, Fuchsbauer, & Gazi, 2015). The system is useful for numerous financial applications and allows a secure channel to conduct financial transactions (Grinberg, 2012). Besides, the platform offers an exchange for the cryptocurrency, which are forms of digital currency that are exchanged on the blockchain ground (Hayes, 2017). A substantial number of cryptocurrencies exist now; however, Bitcoin is the most prevalent and trusted among these.

The development of the blockchain platform and validation of the use of cryptocurrency is a major milestone for the modern world, especially in the current wave of globalization that has rendered distant places of the globe easily accessible. Accessory to the trend, advancements in technology has made it easy for corporate entities and financial institutions to pursue transnational business ventures (Gans & Halaburda, 2015). For instance, decentralized cryptocurrency offers a secure and reliable platform that facilitates peer-to-peer financial transactions across national borders. Not only the corporate entities, but individuals from various regions of the globe can also use blockchain network and transfer money at distant places (Doguet, 2013). Apart from financial transactions, blockchain provides corroborative and inclusive platform to institutional entities where multiple stakeholders can record their input and verify, or retrieve, critical information as and when needed.

Educational institutes, corporates entities, healthcare services, and the private sector are likely to benefit from the blockchain technology, especially from the safety, reliability, privacy, and immutability of data that it offers to its users. Through blockchain, it is easy to transfer resources to distant regions, and the process is fast and reliable. Moreover, organizations that deal with clients can use the technology to facilitate secure communication and transfer of information, without a fear of unintended intrusions (Christopher, 2014). The current status of the system conforms with the needs of modern society for digitization and

eliminates drawbacks that hampered traditional centralized data storages which were prone to breaches. Thus, in addition to the ease of financial transactions, all kind of organizations that involve people and finances can benefit from blockchain technology.

3. Research significance

The blockchain technology is a complementary system to address the digital needs as well as privacy concerns of the modern society, especially when use of Internet and information technology have took hold of almost every walk of life. The advancements from traditional means of transacting business towards technology-driven corporate landscape imply that today's world is needing to digitize economic relationships to comply with the dynamics of globalization, which seeks to promote business across regions without the need for physical presence (Doguet, 2012). The decentralization features of blockchain platform and its alternatives to physical currencies – the cryptocurrency – have offered the world an avenue through which the markets, financial institutions, and economic activities can carry out their processes securely and smoothly (Zyskind, Nathan, & Pentland, 2015; Zheng, Xie, Dai, Chen, & Wang, 2017). Blockchains and cryptocurrencies are expected to play a central role in the promotion of a free and efficient market mechanisms that complement the transactional as well as informational objectives of individuals and nations.

Blockchain as a financial technology can use by the governments to reduce the economic and political costs of environmental governance. Therefore, the main goal of GCC is to foster socio-economic development in the Arab region. Also, the council works to promote trade and helps realize a society where trade venues remains active and efficient (Kosba et al., 2016). The blockchain technology offers an excellent system that GCC members can use for streamlining routine economic transactions (Glaser, Zimmermann, Haferkorn, Weber, & Siering, 2014). If incorporated, the improvisation will increase operational efficiency, reduce the time for transactions, and provide an equitable platform for regional and international trade. By installing self-grown blockchain infrastructure, Arab countries can operate as their own blocks and explore enormous opportunities as well as potential overseas (Conoscenti, Vetro, & De Martin, 2015). Therefore, the blockchain system will improve the economic operations of GCC, and such a situation will benefit the member states. Before the use of technology, mutual trade and physical transactions amongst states entailed processes such as interbank money transfers, which had cumbersome protocols. Moreover, it took excessive amount of time for resources to be channeled to the desired terminal (Carlson, 2016). However, use of Internet, and now the blockchain, offers an excellent venue for a real-time exchange of resources across a trusted digital platform. The opportunity will positively impact the economies of the GCC's member countries (Shea, John, & Vanderdasson, 2009).

The world is evolving rapidly, and technology remains the key promoting factor. The near future is likely to be a society where every element of society is digitized. The changes in economic operations will create a system that eliminates the need for liquid money (Sturm, Strasky, Adolf, & Peschel, 2008). The presence of platform that allows digital transfer of money will help realize this desired objective. As a result, the blockchain as a financial technology will revolutionize economic platforms leading to a pronounced use of digital currency, rather than liquid money.

4. Literature review

4.1 Overview of the integration of (TAM) and (IDT) theory

Tam theory is an ideal model for accepting new technology, but it is questionable to implement TAM model to all new technology acceptance situations. In effect, previous studies showing that integrating TAM with other theories to making radical technological change and improving the quality (Be´langer & Carter, 2005; Colerette et al., 2003). There is a similarity in some constructs between IDT and TAM models which are complement each other to acceptance a new technology (Hsieh et al., 2011). As a result, the integration of these two theories can provide a better model for acceptance of new technologies.

4.2 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) is a systematic approach that streamlines the use and supports acceptance of modern technologies. TAM is applicable in scenarios whereby a new technology

comes in the market and society sees the significance of its use (Ha & Stoel, 2009). Moreover, it is promoted by the increase in end-user reactions, which demand a need to adopt systems based on the benefits it can harness (Park, 2009). The need for TAM arises when a community acknowledges the need to a technology, while the adoption of the system is based on the perceived usefulness and the perceived ease of use. Therefore, TAM offers a platform for scrutiny, analysis, and acceptance of technology with the aim of improving user experience and the defining expected outcomes.

The Gulf region is exploring the significance of adopting blockchain technology to facilitate routine operations and benefit from its innovative approach toward security and utility. It encrypts transactions and the information shared amongst all the involved parties, thus making it accessible only to the authorized users (Turner, Kitchenham, Brereton, Charters, & Budgen, 2010). The Technology Acceptance Model will facilitate evaluation of the corporate trends of the Gulf's economies and use them as a basis to determine whether integration of blockchain infrastructure and cryptocurrencies will be substantial for the region (Halaburda, 2018). Moreover, the approach will scrutinize all the elements that encompass the suggested systems and create a platform that promotes the use of the new mechanisms within the Gulf region. Thus, TAM will offer ground to help assess the value of blockchain infrastructure and cryptocurrency for the Gulf region.

4.3 Innovation Diffusion Theory (IDT)

Diffusion research analyzes how ideas spread in a population and seeks to understand the conditions that facilitate the spread of an innovation or idea that has societal significance (Lee, Hsieh, & Hsu, 2011). The theory explores the likelihood of a particular culture accepting a design, innovation, or a technology (Lee et al., 2011). The behaviour of the general population, referred to as adopters, is used to validate the significance of the explored idea. The consideration of an idea is not an abrupt move, rather it occurs through a timed significance whereby people come to accept is existence over time (Straub, 2009). Therefore, the diffusion of innovations theory explores the possibilities of ideas becoming widely accepted in a culture, and the process is valuable when exploring the significance of an opinion in a specific setting.

The adopt blockchain and cryptocurrency in GCC may utilize the Innovation Diffusion Theory (IDT), which will allow member states to explore the significance of changing the existing technological culture. The member nations can conduct a public survey of the general population and determine whether the levels of technology in the region are substantial enough to support blockchain and cryptocurrency (Persico, Manca, & Pozzi, 2014). The integration process entails the determination of systems that can capitalizes on available technology to prevent scenarios whereby adaptation complements intended objectives and removes procedural as well as technical hurdles. Furthermore, GCC could consider the evidence-based practice to explore the spread of previous technologies in the Gulf and assess whether the proposed idea would have the same impacts (Jun, 2018). Hence, GCC's consideration of the blockchain technology and cryptocurrency would be based on the outcomes that validate the ability of a new technology to diffuse across the region.

4.4 Blockchain as digital finance platform (Cryptocurrency)

Financial industry has experienced constantly changing, improving fast because of digitalization. Recently, there is a shift in the axis of digital transformation through improving the delivery of traditional tasks to introducing new business opportunities and models mainly for financial service companies. Digital finance four characteristics: magnitude of new financial products, financial businesses, finance-related software, new forms of customer communication and interaction, which provide by FinTech companies and innovative financial service providers (Gomber et al., 2017). Digital finance has some benefits; for example, digital finance may drive to more financial inclusion, expansion of financial services to non-financial sectors, and development of standard services to since nearly 50% of people in the developing country which have already a mobile phone (Bank 2014). As result, the first motivation of change is the fast growth of a range of technologies are converging toward new business models which challenged the new financial services industry. The most important new technologies in today's word of financial services industry are: virtual currencies, distributed ledger technologies (known as blockchain technology), cloud computing, artificial intelligence, advanced analytics, Internet of things, advanced identity management methods, robotics,

biometrics, and virtual-augmented reality (Ketterer, 2017). The strike force of these technologies lead to stimulate the challenge because they enable business models to turnout that require very little investment. The terms of digital currency, virtual currency, and cryptocurrency characterize a type of currency that realize almost all typical functions of money, but it is available only on electronically and is at most used on the Internet. Cryptocurrencies are decentralized, transferable without mediator, and virtual currencies which based on encryption technology (Force, 2014).

While cryptocurrencies refer to digital mediums of exchange that utilize encryption technologies to regulate the circulation of monetary units while validating monetary transfers, blockchain refers to an innovation that allows for the existence, operation, and distribution of cryptocurrencies (Deloitte, 2014). The blockchain was invented for bitcoin dealings within the digital market. Scientific terms may define the blockchain as a transaction ledger which is decentralized and support transactions between anonymous dealers, Eikmanns and Sandner (2015). Through the technology, miners and consumers can authenticate trade procedures without requiring a centralized validation mechanism or agency, Eyal and Sirer (2018). Applications within the technology may encompass asset and money transfers, voting, and trade settling processes. According to Isaac, Abdullah, Ramayah, and Mutahar (2018), the year 2017 saw a peak in cryptocurrency adoption, depicted by their increasing industry applications in commerce, supply chain, gambling, finance, and trade. Investors are also considering cryptocurrencies the best options for long-term investments (Kristoufek, 2013). While some governments including the Chinese government has outlawed the use of bitcoins for fear of losing their fiscal control, more industries, businesses, and governments indicate their appreciation of the advantages and values bitcoin has to offer (Kristoufek, 2015). In collaborating governments, financial institutions have played a significant part in implementing the blockchain technology, thus sustaining the relocation of assets and money regionally and internationally (Lee, Trimi & Kim, 2013).

The digitization of major world economies has led to a need for developing countries to consider approaches that reduce the need to use complicated traditional systems of economic operations. Trends in place affirm a need for society to consider modern approaches, especially in the finance sector (Gomber, Koch, & Siering, 2017). The major problems encountered by traditional systems include confidentiality concerns, the time needed to facilitate operations, and time-consuming business protocols, especially when it involved financial institutions. The blockchain network offers a standard system that assuage most of the issues hampering efficiency of financial transactions in today's fast-paced economy (Ozili, 2018). To complement the security and efficiency, the blockchain infrastructure is optimized to offer users an excellent experience regardless of their location. The blockchain technology also makes it easy to monitor transactions as the process keeps record of the parties involved (Milutinović, 2018). Furthermore, it is more comfortable as compared to traditional systems that demand third-party involvement, thus eliminating the apprehensions regarding privacy (Zhu, Song, Ni, Ren, & Li, 2016). Therefore, the blockchain offers an opportunity for the exploration of activities that simplify financial processes and create a better approach to the realization of a financial landscape with insignificant institutional and regulatory limitations.

Cryptocurrency has also offered a substantial solution in the field of digitization of market assets. The technology is expanding at an enviable pace and likely to, as has the potential to, replace traditional systems. The use of this cryptocurrency has become a global phenomenon considering its applicability and ease of access across the globe. Sometimes known as virtual currency, the digital-code based money has captured the imagination of the larger population, with the Bitcoin being the most widely used (Gupta, Keen, Shah, Verdier, & Walutowy, 2017). It has enhanced the electronic cash system that facilitates online transactions without the physical presence of the involved parties. Notably, the currency will help revolutionize the world and create a society where people can remotely explore different markets and trade without the encountering procedural and institutional limitations that tend to slow down the transactions (Vitt, 2013). For instance, the blockchain platform makes it easy to transfer desired amount of resources across different points. In addition to the elimination of hinderances, Cryptocurrency provides equal application of currency as its value remains constant across the network and changes only when exchanged to other forms of money (Wright, 2017). Therefore, the use of digital resources is essential towards the realization of a free, safe, substantial, and most of all, stable market.

GCC's objective to supplement socioeconomic development of the region entail advancements in education, healthcare, trade, financial management, and all other activities that involve the use of money

(Hu & Zheng, 2016). Therefore, blockchain and digital finance platforms will offer a sound and reliable futuristic base for these operations. All institutions within the member countries of GCC can use digital currency to conduct business operations (Al-Mubaraki & Schröl, 2011). Such a system would promote trade within the region, eliminating existing drawbacks including currency change, safety issues, and long period of transaction. Thus, a blockchain transaction will facilitate business operations amongst GCC members, and such a system will improve the status of the nations in the Gulf region.

A significant application of blockchain and cryptocurrency will be the promotion of international trade between the GCC members and other countries. The establishment of a digital form of currency will stabilize the region's economy and prevent scenarios whereby the value for goods, such as oil, fluctuates based on the currency of the producing country (Hu & Zheng, 2016). Moreover, the consideration of the cryptocurrency will also facilitate successful, fast, efficient, and easy economic transactions between GCC members and other nations. The trend will create a culture where operations are fast, and such a change is essential for the economic development of nations in this region. Overall, the consideration of digital trade through a standardized system will promote stability amongst members of GCC.

The reason behind these trends is that the technology and digital currency provides an efficient platform for business innovation. The systems make it easy for businesses to collaborate across different regions. Enhanced collaborative framework makes it easy for companies and individuals in business to design better approaches that can market products across different areas. The presence of a common currency opens opportunities for people to invest without indulging in hectic money exchange calculations. Eventually, people and countries in GCC will explore new marketing opportunities due to the elimination of impediments that were encountered in the past (Arabehety, Chen, Cook, & McKay, 2016). A perfect instance is a scenario whereby the establishment of new systems that involve financial operations amongst different parties will not require physical availability or regulatory sanction of the financial institutions thereof. Businesses can thrive remotely as managers would consider innovative applications that facilitate the processes and link those to the blockchain technology and digital currency.

The numerous benefits of blockchain technology has led to its increasing rate of utilization in different sectors. According to report by Grand Review Research (2018), the market size of blockchain technology market size in the world was valued at $604,500,000 in the year 2016 and it is expected to show a compound annual growth rate of 37.2 percent over the period of forecast. For example, the chart below represents the U.S blockchain technology market size as applied in financial services, consumer products, technology, media and telecommunication, healthcare, transportation, and public sector. From the chart, it is evident that the United States is experiencing an increasing rate of blockchain technology utilization.

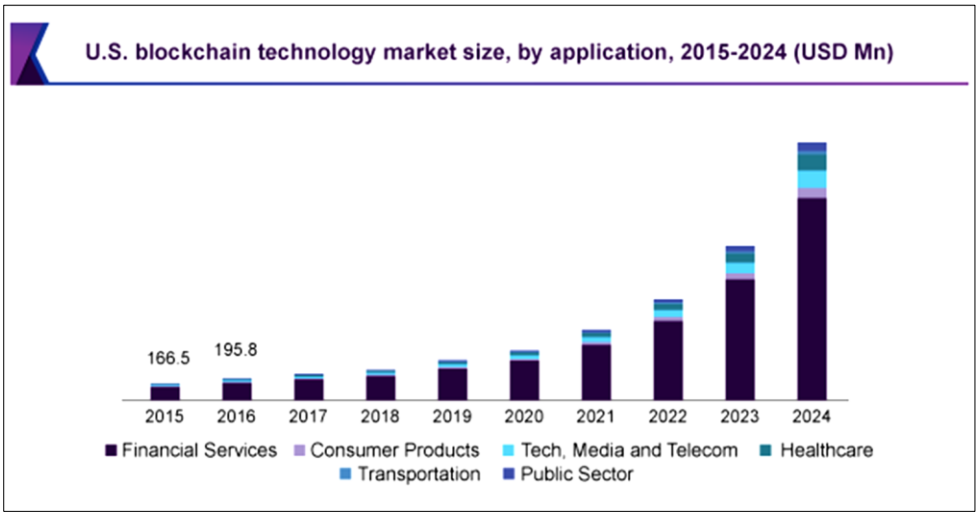

Figure 1 U.S. blockchain technology market size by application (Grand Review Research, 2018)

As a result, the use of digital currency and the blockchain infrastructure provides a platform that can facilitate the decentralization of business operations. The use of liquid currency limits such a system because of the institutional and procedural limitations. However, with the use of blockchain, it would become easy to conduct business operations across different departments or countries as all the stakeholders would be linked to an encrypted platform. Notably, digital systems will eliminate the disadvantages and facilitate the establishment of platforms that centralize an economy (Kim, 2016). For instance, the establishment of a large database that provides opportunities for all economic activities will promote trade since transactions are payable through a standardized digital system. Hence, integrating blockchain allows for a broader scope of activities to occur under the same platform and innovators can readily explore the idea to greater utility.

4.5 The technological foundation and security of blockchain technology

Blockchain technology operation is based on the peer-to-peer model which eliminates the need for intermediaries. The security of blockchain refers to a scenario whereby the transacted information is kept private from third-party interference. The element is complementary to the cryptocurrency as blockchain controlled mechanism ensures an end to end encryption of the information, allowing only the involved parties to access the information (Zheng et al., 2017). The trends in the technology affirm that blockchain is the most efficient and secure systems. The technological element of the blockchain system is designed to ensure that the information remains within the stipulated network and is accessible only to relevant users. Therefore, the blockchain infrastructure offers an efficient and secure platform for financial transactions, eliminating risks, such as information leak or surveillance by third parties. In addition, the distributed ledger technology – commonly known as blockchain – maintains an end to end arrangement of digital blocks that store the transaction records (Zheng et al., 2017). All the blocks are directly connected, and such a system makes it hard for third parties to access information as the deciphering of one block implies a need to connect it to others of its type (Zyskind, Nathan, & Pentland, 2015). Besides, by allowing the use of smart contracts and offering a traceable record that allow audits of the execution of contracts, blockchain incorporates utilizes a mix of transaction as well as consensus protocols to determine the validity of a transaction (European Union Agency for Network and Information Security [ENISA], 2016). Thus, the arrangement of digital blocks, which are interdependent, and the confirmatory validation of every transaction are the key parameters through which the blockchain protects transaction data and ensures that the transacting parties mature their deal affectively.

Encryption, which refers to a system that ensures access to data only by authorized parties, is one of the practical approaches that protect transactions in the blockchain technology. The cryptography system provides an environment whereby the network of users has unique passcodes – public and private keys. The private keys act as an individual signature that allow access to relevant information and are required for the execution of every transaction and any alteration of the keys leads to the whole system being disabled; however, the system provides early notifications that prevent further damage (Zheng et al., 2017). Another advantage of encryption is that it prevents external access and confines transactions between the involved parties who appear in a particular network and have relatable keys. Overall, cryptography facilitates the protection of transactions in a blockchain infrastructure. Another significant security element of the blockchain technology pertains to the innovative approaches that it uses to verify transactions. Participants must agree to the terms that represent the truth before a transaction is added to the system. An excellent example is the bitcoin blockchain, whereby computers try to solve complex cryptographic decryptions and, if succeeded, ultimately validate the transaction. However, a major limitation of the verification system is that it requires significant power, especially in scenarios whereby the blockchains are large and for public use. Alternatively, private blockchain systems have a permission network that allows known users to validate any transaction. Such a system only allows participants with transaction rights to verify operations. Thus, verification is an essential element in the blockchain technology, and it entails solving cryptographic complexes.

5. Conceptual elements that affects to successful for blockchain infrastructure acceptance in GCC countries

In this research paper, the authors suppose conceptual elements that affects for successful acceptance for blockchain infrastructure in GCC countries.

5.1 Digital leadership

The digitization of the society demands an innovative approach for the management of corporate and financial systems. Countries and interested stakeholders must consider the changes to create an efficient digital environment. The process involves a scrutiny of blockchain ecosystem and the adoption of practices that best suit the systems in place (El Sawy, Kræmmergaard, Amsinck, & Vinther, 2016). Moreover, it is essential to consider digital leadership approaches that attribute to the existent culture to prevent scenarios whereby the practices do not conform to the ideas or expectations of the technology. Hence, digital leadership offers a platform for the management of activities on a modern platform. The success of digital leadership depends on how an organization utilizes current assets to establish an environment that meets the demands of customers and involved people, and it is applicable at both the personal and organizational levels. The system explores the use of ever-growing technology, especially in the corporate world and seeks to create a business landscape that considers technology as a key facilitator behind its routine operations (Valentine & Stewart, 2015). A central person or people are chosen to oversee the progress and operations of digital assets, such as electronic documents and emails. The chosen individual must understand the corporate goals and work towards the realization of these objectives. Overall, digital leadership entails the management of corporate assets in a digital business landscape.

Alternatively, digital leadership is practical in scenarios whereby an organization makes use of its digital assets to works towards the realization of its defined objectives. The move aims to improve the organizations position in the market, gain, and maintain a competitive advantage against competitors. The digital leaders explore how information technology can foster company operations in relation to the changing market trends and customer demands. The process also entails effective communication, commitment to improvements, and the elimination of elements that induce redundancy to the organizational processes. Accordingly, digital platforms focus on the development of a franchise through the effective management of digital assets. Use of blockchain and cryptocurrency are digitalized processes, which call for excellent digital leadership. The use of digital coins is only practical in an environment with individuals who have expertise in the management of the resource and transactional procedures. The process entails command on information technology; hence, the need for people who can effectively manage the existent systems to create better outcomes (Carlson, 2016). Therefore, the smooth integration of digital currency and blockchain networks relies on the digital leadership, which ensures the provision of an excellent platform that can effectively manage business transactions and result in company growth or the maintenance of a competitive advantage.

Digital leadership provides relevant information regarding market trends and the position of a franchise in a corporate system, and this feature is essential for the success blockchain technology in GCC. The elements are critical to the management of cryptocurrency considering that it is a primary factor of trade. Moreover, competent digital leadership would help the region identify approaches that can better the use of cryptocurrency amongst GCC members. The ultimate situation is s system that promotes the status of an organization or individuals in a digital market setup. Therefore, in relation to the growing trend of blockchain adaptation throughout the world, digital leadership will provide a platform for an analysis of global trends in the market and offer the most feasible considerations for the use of cryptocurrency to the GCC members.

5.2 Digital training

Training is an essential requirement for businesses as it equips the workforce with knowledge and skills that are essential for the realization of socio-economic and political development of the society at large. The process is successful if stakeholders scrutinize the relevant environment and identify relatable issues to outline the basics that are needed for an intended activity. Moreover, it is important to understand that every environment has unique features that can be utilized to realize specific goals as the technology-integration process makes use of available resources and opportunities to facilitate the realization of set objectives. Digital training involves equipping the general population of specific people with information that is

necessary to create a technologically updated setting. The digital training helps organizations amass the exact skills that they need. It is difficult to find experts with high competence in cryptocurrency as there exists no platform that offers such training in GCC region yet. Therefore, organizations must hire and train people for the specific task, and such an approach increases competence and the value of outcomes. Additionally, digital training also creates an environment that promotes competence, revolutionizes the processes, and opens a ground for the adaptation of new ideas. The elements promote the establishment of a setting where technology becomes the core basis for all activities. Thus, digital training is essential for the improvement of states, corporate sector, franchises, and individuals involved in businesses.

The digital training system requires an adoption plan that entails the identification of relevant technologies and a platform to facilitate their integration. The utilization of digital technologies correlates their applicability and the digital training that stakeholders must adapt those, and the only difference arises through the approaches used as well as the defined goals and objectives (Rosenberg & Foshay, 2002). Considering the applicability and validity of digital training makes it easy to set s defined environment that promotes the wellbeing of the involved people. Accordingly, digital training to integrate blockchain ecosystem requires appropriate approaches, refined expertise, and availability of sufficient resources as well as will to carry out its related operations. Actually, the blockchain technology is comparatively a newer technology, and few people have expertise in how it works. Therefore, there is a need to initiate training ventures that offer infrastructure as well as core knowledge about the creation, distribution, and use of digital currency. GCC can significantly benefit by initiating digital training programs as the measures will offer citizens with knowledge on technologically controlled platforms, leading them to use blockchain system to innovate their business practices and advance their expertise. Given the potential that blockchain and cryptocurrencies have for the financial realm, GCC can realize its objective of inclusive development and sustainability by opening new vistas of tech-supported opportunities.

6. Conclusion

The discussion outlines significant elements that encompass the blockchain infrastructure, cryptocurrency, digital technology, and the future of the changes regarding society and the GCC. A major reference is made to the countries in the Gulf region can consider the blockchain system to foster economic development. The outcomes affirm that the Gulf region has a high potential to develop into a powerhouse of trade, based on tech-supported systems that consider the use of digital technologies and eliminate reliance on liquid money. Therefore, the major element of the discussion scrutinizes the blockchain infrastructure and its major offering – the digital currency – and how the two factors will foster the region's economic development.

The literature review analyzes the relevant strategies and technologies that can support the success of cryptocurrency and the blockchain system in GCC region. For instance, the Technology Acceptance Model outlines the practices that Gulf nations can consider before adopting the blockchain. An analysis and resultant adoption of the blockchain system under TAM model suggests that the innovation would complement core objectives of the GCC organization by fostering economic development and business innovation in member states. In addition, the discussion analyzes the Innovation Diffusion Theory (IDT) which outlines the elements that determine the spread of a technology in a specific community. Gulf countries benefit the propositions of the theory for analyzing the need to explore digital currency and blockchain technology. The discussion further validates the significance of the blockchain system in the society. Its applicability is evident in sectors that involve financial systems as well as information processing, and such applicability confirms the importance of technology across multiple socioeconomic sectors. Moreover, the explorations affirm that by integrating blockchain based digital platforms, businesses and individuals can eliminate conventional impediments that hamper the efficiency of multinational trade. Thus, the discussion outlines the value of cryptocurrency and blockchain systems in the transforming financial markets of the Gulf region.

However, there is need to explore the compatibility of blockchain infrastructure with the existing technological framework of GCC region, and if it requires improvisation, member states should work towards its procurement and allocate sufficient resources for the purpose. Adoption of the blockchain calls for the scrutiny of blockchain security, promotion of digital leadership in the area, integration of digital training venues, and the review of the future use of the technology. These elements are essential for the success of cryptocurrency in GCC region as they outline some of the significant factors that would better the system and

create a platform that promotes the digitization of business environment. Furthermore, they validate the need for corporate entities to explore the option to benefit from the promising aspects of the technology for the promotion of a globalized economy. Finally, it is evident that the blockchain technology is the future of global markets as it offers a platform for hassle free financial operations, reliable security, and, eventually, the realization of a society that thrives because of efficient business transactions. Hence, GCC region should also follow the course to materialize its growth and developmental objectives.

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