

Chapter 9

The Framework for Blockchain Innovation and the Impact on Digital Economic Transformation

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ABSTRACT

Blockchain technology has become an epidemic and significant decision that organizations may make in the next few years, as integrated business solution enabling institutions to integrate business functions, operations, and processes in a decentralized distributed ledger technology. This technology will transform the business world and economy in solving the limitations created by centralization and system inefficiency. Accordingly, with the highly demanding and complexity of growing economies such as Gulf Cooperation Council GCC countries, the need for a typical solution technology is a game changer. The result of this will lead GCC to a solid base of the economy. Blockchain technology can be applicable in many different fields such as: banking, education, health care, finance, government, trade, etc. This article will propose a conceptual framework for the acceptance of Blockchain technology and innovation in the GCC, particularly in Saudi Arabia. Also, more research can be conducted in the future as the system might be integrated in these countries.

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INTRODUCTION

In the last decade, Gulf Cooperation Council (GCC) has been through some major changes in the economy by incorporating the concept of Knowledge Economy and technology as an alternative of Oil-based economy. Dubai for example, has taken the blockchain technology to the implementation level, and the technology will be fully utilized by government in 2020. Also, Saudi Arabia recently has made a clear transformation in many different fields toward the new technology and competitiveness due to the governmental development. They started the adaptation of information technology and took a serious step to develop the management processes and performance to a competitive level due to the 2030 vision. The economic environment has become highly influenced by the new technology. This transformation has increased the demanding of high efficiency in processes, operations, and performance across government and institutions. Blockchain (BC) is the game changer, and it is one of the biggest technologies invented in the 21st century (Thomas 2017). Accordingly, with the high demanding and complexity of growing economies such as GCC countries, the need for the typical solution technology is for modernising business systems. The technology system by far has built a good reputation of efficiency in assurance, reliability, integrity and decentralization, as it provides a total control of the managerial and operational processes. The technology will make a rapid impact on the organization's performance. Despite the importance of the Blockchain technology, it considers as the base platform for solutions and services provided. Consequently, more analytical figures and information can be obtained by using this technology. This article will expose some factor aspects that incorporate with BC technology, and have an impact on the acceptance of BC and innovation. These aspects affect the BC on both sides directly and indirectly. Eventually, the BC technology will be utilized as integrated platform.

Factors Affect BC Acceptance and Business Innovation

1. CFO leadership characteristics
2. Culture
3. Data analytics
4. Digital training and education
5. System quality and security

CONCEPTUAL RESEARCH MODEL

This framework represents a conceptual model with some constructs aspects that affects Blockchain (BC) acceptance directly and indirectly at the GCC. The conceptual model of BC acceptance stands alone as platform, and the indirect constructs will be as 3rd party solutions that working integrally with BC system.

The framework proposes the following hypothesis:

- H1:** CFO Leadership Characteristics affects BC- EOU and usefulness.
- H2:** Culture affects BC - EOU and usefulness.
- H3:** Data Analytics affects BC - EOU and usefulness.
- H4:** Digital Training and Education affects BC - EOU and usefulness.
- H5:** System Quality and Security affects BC - EOU and usefulness.

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