

Identifying and Analyzing Key Drivers Affecting the Future of Auditing in Iran with a Focus on Blockchain Technology¹

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INTRODUCTION

Digital technologies such as the Internet of Things, big data, and artificial intelligence have affected many industries and businesses, including the financial industry, in recent years. Fintechs are a part of the financial industry that has been influenced by digital technologies, especially blockchain. Blockchain, which is known as the underlying technology of digital currencies such as Bitcoin, is considered one of the most important transformative technologies after the Internet.

The inability to modify a transaction is essential to blockchain integrity and ensures that all parties have accurate and identical records. Since blockchain is a distributed system, all changes to a ledger are transparent to all members of a network. The impact of blockchain on the fields of accounting and auditing has recently attracted the attention of accounting researchers. It can be predicted that in the age of advanced technology, blockchain will lead to significant changes in many current accounting and finance programs, however, it is important that due to the lack of

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widespread use of this technology as well as the lack of research and studies Scientifically and practically, it is still not possible to say clearly about how this transformation and its merits and demerits will affect various industries and fields, including accounting and auditing. For this reason, the current research seeks to identify and analyze the key drivers affecting the future of auditing in Iran, focusing on blockchain technology.

MATERIALS AND METHODS

In this research, two Fuzzy Delphi and COCOSO techniques have been used. Both are part of quantitative methods and use quantitative data for analysis. The fuzzy Delphi technique has been used to screen the key research drivers and the COCOSO technique for prioritizing and analyzing the drivers. Considering the quantitative nature of the research techniques, the present study has multiple quantitative methodologies. Also, due to the benefits of research findings for auditing, the study has a practical orientation.

To collect data, two tools including interviews and questionnaires were used. The key drivers of the research were extracted from the review of articles related to auditing and blockchain and interviews with experts in auditing and digital technologies. Next, to analyze the data of the study, two questionnaires of expert assessment and priority assessment were distributed among the experts. Expert questionnaires were analyzed using the Fuzzy Delphi technique and priority questionnaires were analyzed using the COCOSO method. Because the contents of the questionnaire were calculated from reviewing the background of valid articles and interviews with experts in the field of auditing and blockchain, both questionnaires of expert assessment and priority assessment had favorable validity. Also, due to the selection of the optimal volume (15 people) and the screening of research drivers and their significant reduction, the prioritization questionnaire was reliable. The experts of the current research were the managers and senior experts of the audit organization, the Accounting and Capital Market of the country in the field of auditing, and digital financial technologies. Considering the expert-oriented nature of the research techniques, the sampling method was judgmental and the samples were selected based on their expertise in the field of auditing and digital financial technologies. The sample size in this research was equal to 15 people, which is a suitable number for expert-oriented methods. The present research was carried out in three stages. In the first stage, the key drivers affecting the future of auditing with a focus on blockchain technology were obtained through a background review and interviews with experts. In the next step, these propellants were screened using the Fuzzy Delphi method. Finally, the degree of priority and importance of each of the drivers of the research was determined using the COCOSO

method. Because of the large number of research drivers (22 drivers), the Fuzzy Delphi method was used to screen the research drivers.

RESULTS AND DISCUSSION

Among the drivers of the research, 17 drivers were extracted from the background and five drivers were extracted through interviews with experts. 11 propellants were left out of the calculations and final analysis because their diffusive number was less than the threshold. The remaining 11 drivers were evaluated using the COCOSO multiple attribute decision-making technique. COCOSO uses four indices K_a , K_b , K_c , and K to analyze the degree of priority of factors and options. According to the final K index, blockchain development drivers in other industries and fields (5.5), the adoption rate of blockchain by organizations and audit institutions (5.35), the development of corporate governance in the country (4.88), the level of preparation of accountants and Auditors for change (3/765), the development of emerging financial markets in Iran such as the cryptocurrency market (3/764) and developments in global accounting and auditing systems and standards (3/64) were respectively of the highest importance and priority.

CONCLUSION

The fields of accounting and auditing need to identify effective factors, opportunities, and existing challenges to get the necessary preparation to progress and keep up with new technologies. Considering the priority of blockchain development drivers in other industries and fields; It can be said that by increasing the implementation and use of blockchain technology, the usefulness of perception is created for managers and users, and the challenges and benefits of this technology are observed and evaluated. Academic researchers are suggested to guide and encourage auditors and accountants to use this technology by examining the blockchain technology and presenting their results report in the form of research. Also, this scientific research can provide the necessary background to familiarize company managers and organizational personnel with blockchain and as a result, lead to faster and better acceptance and use of this technology. It is suggested to provide necessary training to introduce the benefits of new financial technologies such as blockchain for accountants, auditors, and company managers. On the other hand, standard-setting institutions have tested their application by providing test spaces to facilitate the entry of this technology into business environments, and by approving the necessary laws and standards, they can be effective in ensuring and validating blockchain. Legislators can define companies and their scope regarding the use of blockchain by providing a certain framework so that managers can use these emerging technologies by estimating the risks and

benefits of their organization. Regarding the future research of emerging markets, since most of these markets are based on blockchain, with the development and expansion of these markets, more audiences will be attracted and more companies will enter this field, as a result, financial literacy and knowledge of users will increase, which will affect the acceptance and Welcoming auditors and accountants in this field will be effective.

Keywords: Auditing, Digital Technology, Blockchain.

JEL Classification: M40, O14, O3.

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