



Alzahra University, Faculty of Social Sciences and Economics Empirical Research in Accounting, Summer 2024, V. 14, No. 52, pp.21-24

# Quantitative and Qualitative Content Analysis of Scientific Research Articles in the Field of Technology in Accounting and Auditing<sup>1</sup>

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Received: 2023/12/09 Accepted: 2024/02/08

Research Paper

## PURPOSE

These researches deal with analyzing publications and research results to provide service to decision-makers, policymakers of science and planning, and practitioners of knowledge or scientific fields. For this reason, considering the emerging and real and unknown effects of technologies in accounting and auditing and the changes that these technologies can have on the performance of the accounting and auditing information system; The analysis of the content of quantitative and qualitative articles and review of research can play an important and constructive role as a useful tool in the scientific growth and development of this profession in adaptation and alignment with new technologies. Therefore, it is necessary to check how academic research in this field evolves. This study aims to highlight the strengths and weaknesses, create a platform for its development and strengthening, and try to improve the shortcomings in future research. This research, the areas related to accounting that are expected; Technologies such as cloud computing, blockchain, ERP, XBRL, and artificial intelligence will affect them among a set of

<sup>1.</sup> doi: 10.22051/JERA.2024.45827.3189

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accounting researches so that by analyzing the content of these articles, comprehensive understanding and new insights of future researches in the field of technologies in the accounting profession will be provided to accounting researchers. and audit the country, professional experts, and the scientific community

#### **RESEARCH METHOD**

In the current research, the qualitative part is exploratory, based on databased coding. Qualitative content analysis as a technique. It examines the content of abstracts of published articles. These articles were collected from the database of domestic quarterly journals until the 30th of November 2023 for this purpose, In the current research, the qualitative part is exploratory, based on data-based coding. Qualitative content analysis as a technique. It examines the content of abstracts of published articles. These articles were collected from the database of domestic quarterly journals until the 30th of November 2023. For this purpose, 39 publications approved by the Ministry of Science, Research, in the accounting, financial engineering, and auditing groups were reviewed from 2003 to 2023. In this way, the articles with the keywords ERP, XBRL, IOT, artificial intelligence, Internet of Things, cloud computing, blockchain, technology, or their equivalents (such as extensible reporting language, organizational resource planning, technology, etc.) It has been collected. Finally, more than 215 articles were collected and reviewed. Of these, 34 articles were removed due to not being related to the subject or profession of accounting and auditing, 181 articles were extracted, and 5 magazines did not have keywords to search for articles in the field of technology. Each of these parameters was recorded and their graph was drawn. In the qualitative part of the content analysis, to identify the axes of adoption and development of technologies (causal, contextual, interventional factors, strategies, and consequences), and check the frequency of each axis, first, the results of each article were fully examined. Then the concepts were identified and coded. publications approved by the Ministry of Science, Research, in the accounting, financial engineering, and auditing groups were reviewed from 1382 to 1402. In this way, the articles with the keywords ERP, XBRL, IOT, artificial intelligence, Internet of Things, cloud computing, blockchain, technology, or their equivalents (such as

extensible reporting language, organizational resource planning, technology, etc.) It has been collected. Finally, more than 215 articles were collected and reviewed. Of these, 34 articles were removed due to not being related to the subject or profession of accounting and auditing, 181 articles were extracted, and 5 magazines did not have keywords to search for articles in the field of technology. Each of these parameters was recorded and their graph was drawn. In the qualitative part of the content analysis, to identify the axes of adoption and development of technologies (causal, contextual, interventional factors, strategies, and consequences), and check the frequency of each axis, first, the results of each article were fully examined. Then the concepts were identified and coded.

#### FINDINGS

The results of the quantitative section showed that the highest frequency percentage in the variables, subject contribution (artificial intelligence and algorithms); research method (quantity using artificial intelligence algorithm); The most published articles in the period (1400 to 1402); The largest share of publications in publishing articles, respectively (Financial Engineering, Auditing, and Management Accounting and Al-Zahra University), the academic level and rank of the authors of the articles (Assistant Professor), the contribution of the publisher (Azad University) and the qualitative section, from the theoretical data analysis of 396 codes in format 14 The main category was identified that in addition to the benefits of technology, the content of the results of the articles is around the category of challenges and obstacles.

### CONCLUSION

The abundance of concepts, challenges, and obstacles to the adoption of technologies in the field of accounting and auditing, according to the special conditions of Iran and the need to pay attention to the inhibiting factors, to reduce and remove the obstacles and limitations in the adoption and implementation, have been considered in the results of the published articles. Also, the trend of publishing technology articles in the last three years shows significant growth, but the thematic share of articles in this field is less than in other topics.

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# **KNOWLEDGE GENERATION**

Through a methodological approach, it can help specialists, researchers, and the scientific community and provide the possibility of identifying the state of technology in the accounting research field.

Keywords: Technology, Quantitative and Qualitative Content Analysis, Scientific-research articles.

JEL Classification: M41, L24, L86, O14.



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