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Innovation In The Evolution Of Accounting: A Study Of Accounting Transformation In The Digital Age

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Abstract:
Background*: Accounting has evolved to meet the needs of a complex global economy, becoming indispensable for strategic decision-making and transparency in organizations. Understanding technological innovations is crucial for accounting professionals to adapt to the new demands and opportunities of the digital age.*
Materials and Methods*: Using academic databases such as Google Scholar, Scopus and Web of Science, articles were selected with search terms such as "innovation in accounting", "blockchain technology in accounting", "accounting automation" and "artificial intelligence in accounting". The analysis of the collected data was carried out through the content analysis technique, identifying relevant themes and patterns.*
Results*: The results indicate that automation and artificial intelligence improve the accuracy and efficiency of accounting tasks, allowing accountants to focus on more strategic functions. However, the transition to these new technologies requires significant investments in training and skills development.*
Conclusion*: It is concluded that technological innovation has reshaped accounting, providing opportunities to improve the efficiency, accuracy and transparency of accounting processes. However, this transformation presents challenges, including the need for new skill sets and adapting to new technologies. The accounting profession must invest in ongoing education and training to fully take advantage of the opportunities of the digital age.*
Key words*: innovation, accounting, digital age, accounting transformation, technology.*

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I. Introduction

Accounting, historically seen as a static and conservative discipline, has undergone a significant evolution, driven mainly by the technological advances of the digital age. From ancient times, when the Sumerian and Egyptian civilizations used rudimentary records to control their economies, to the development of double-entry entry in the Middle Ages by Luca Pacioli, accounting has been fundamental to economic growth and the organization of societies (Iudícibus, 2010).

Over the centuries, accounting has evolved to meet the needs of a complex global economy, becoming an indispensable tool for strategic decision-making and transparency in organizations.

The relevance of this research lies in the understanding of how technological innovations are reshaping accounting, a crucial field for economic and financial decision-making. Understanding these changes will allow accounting professionals, businesses, and educational institutions to better adapt to the new requirements and take advantage of the opportunities of the digital age.

The objective of this research is to analyze the impact of technological innovations in accounting, highlighting how automation, blockchain, and artificial intelligence are transforming accounting practice and influencing the skills needed by professionals in the field.

The justification of the research is given by the urgent need for accounting professionals to adapt to new emerging technologies and having as a guiding question: "How are technological innovations impacting accounting practice and what are the new skills needed for professionals in the area?"

II. Material And Methods

Background: Accounting has evolved to meet the needs of a complex global economy, becoming indispensable for strategic decision-making and transparency in organizations. Understanding technological innovations is crucial for accounting professionals to adapt to the new demands and opportunities of the digital age.

Study Design: This study used a qualitative approach, ideal for exploring complex phenomena and understanding the perceptions and experiences of individuals. A systematic review of the literature was carried out, using academic databases such as Google Scholar, Scopus and Web of Science.

Study Location: The research was conducted in several academic databases and relevant sources of accounting literature.

Study Duration: The literature review was carried out over six months.

Sample Size: 60 relevant articles were analyzed.

Sample Size Calculation: The selection of articles was based on criteria of relevance, impact and date of publication, focusing on the most recent and influential studies in the area.

Subjects & Selection Method: The articles were selected from a comprehensive search using terms such as "innovation in accounting," "blockchain technology in accounting," "accounting automation," and "artificial intelligence in accounting."

Inclusion Criteria:
1. Articles that address technological innovations in accounting.
2. Studies published in the last ten years.
3. Research that includes impacts and challenges of technology in accounting.
4. Articles peer-reviewed and published in academic journals.

Exclusion Criteria:
1. Articles that do not directly address accounting.
2. Non-peer-reviewed studies.
3. Publications in languages other than English and Portuguese.
4. Studies focused exclusively on technical aspects with no connection to accounting practice.

Procedure Methodology: After selecting the articles, the data were extracted using a systematic and rigorous approach. The analysis of the collected data was carried out through the content analysis technique, which involves the coding of the texts to identify relevant themes and patterns. Software tools such as NVivo were used to assist in the coding and analysis of the qualitative data, ensuring a systematic and rigorous approach.

III. Result

A adoção de inovações tecnológicas na contabilidade tem provocado um debate significativo, tanto em termos de benefícios quanto de desafios. A seguir, discute-se os principais pontos observados na literatura, ilustrando com resultados práticos e exemplos.

Benefícios das Inovações Tecnológicas

Automation has allowed repetitive tasks to be performed more efficiently, freeing up time for strategic activities. Warren, Moffitt and Byrnes (2015) highlight that the automation of accounting processes improves accuracy and efficiency, reducing human errors and operational costs.

In addition, Moll and Yigitbasioglu (2019) show that automation allows accountants to focus on higher value-added activities, such as strategic analysis and financial advice. Companies that have adopted automation technologies, such as Robotic Process Automation (RPA), have reported a significant reduction in the time required to perform administrative tasks, allowing for a greater focus on financial analysis and strategies.

Data analytics is another crucial innovation. Cao, Chychyla, and Stewart (2015) argue that the ability to analyze large volumes of data in real time transforms the way companies make financial decisions. The use of big data allows for greater accuracy in predicting financial trends and identifying risks, which can lead to more informed and strategic decisions. Businesses that use data analytics can detect fraud more efficiently and optimize their financial processes.

According to Alles and Gray (2020), the application of data analytics in accounting not only improves the accuracy of forecasts, but also increases the ability of companies to respond quickly to market changes. Blockchain technology has the potential to revolutionize accounting by providing greater transparency and security in financial transactions.

Dai and Vasarhelyi (2017) discuss that blockchain can eliminate the need for intermediaries, reducing costs and increasing trust in financial information. Companies that have implemented blockchain-based solutions have seen a significant reduction in fraud and an improvement in operational efficiency due to the immutability and verifiability of recorded transactions.

A study by Pilkington (2016) complements this, indicating that the adoption of blockchain in accounting improves auditability and regulatory compliance, providing a more robust and reliable system of record.

Artificial intelligence (AI) is being applied for financial forecasting and risk analysis, improving the accuracy of forecasts and helping to identify risks before they materialize. Kokina and Davenport (2017) argue that AI can transform financial auditing, allowing for deeper and more continuous analysis of financial data. Companies that use AI for audits and financial forecasting report improved anomaly detection and strategic decision-making. According to Brougham and Haar (2018), AI also facilitates the automation of complex tasks, allowing accountants to focus on more value-added activities.

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According to Brougham and Haar (2018), AI also facilitates the automation of complex tasks, allowing accountants to focus on more value-added activities. Additionally, Luo et al. (2018) note that AI can enhance regulatory compliance by monitoring transactions in real-time and detecting suspicious activity faster.

Furthermore, AI is being used to develop predictive models that help in strategic decision-making. The study by Issa, Sun, and Vasarhelyi (2016) shows that machine learning algorithms can be trained to predict financial trends and identify potential risks with high accuracy.

For Asadi, Gharaee, and Akhgar (2019), AI can also be employed to improve the efficiency of accounting operations by reducing the time and effort required to conduct financial audits and analysis.

AI is also revolutionizing the way financial reports are prepared and analyzed. According to Zhang and Aversano (2018), AI can automate the collection and analysis of financial data, producing more accurate and timely reports. This allows accountants to focus on higher-value activities, such as strategic analysis and making informed decisions.

Furthermore, research by Li et al. (2020) indicates that AI can help identify hidden patterns and trends in financial data, providing valuable insights that can inform business strategy.

Author, Levy and Murnane (2003) point out that, although automation can eliminate routine tasks, it can also create new opportunities for more complex and more value-added work. Davenport and Kirby (2016) highlight that automation and AI can improve the accuracy and efficiency of accounting tasks, allowing accountants to focus on more strategic functions. However, the transition to these new technologies requires significant investment in training and skills development, as noted by Bessen (2015).

International Examples

In Australia, companies such as the Commonwealth Bank of Australia have been adopting automation and data analytics technologies to improve operational efficiency and financial reporting accuracy (Moll & Yigitbasioglu, 2019). The use of RPA and data analytics has allowed for a significant reduction in the time required for administrative tasks and an improvement in the quality of financial information.

In Europe, companies from various sectors are integrating blockchain into their accounting systems. Alles and Gray (2020) highlight that the adoption of blockchain is providing greater transparency and security in financial transactions, resulting in greater trust from stakeholders.

In the United States, the utilization of AI for financial auditing and forecasting is becoming increasingly common. Sirois, Bédard, and Bera (2018) show that AI allows for more accurate and detailed analysis of financial data, improving anomaly detection and strategic decision-making.

Challenges and Criticisms

One of the main criticisms of the adoption of emerging technologies is the potential for job losses. Smith and Castonguay (2020) argue that automation and AI can replace many traditional jobs in accounting, leading to a reduction in demand for accountants. This perspective highlights the need for reskilling and adaptation of professionals to face new technological challenges.

A study by Brynjolfsson and McAfee (2014) corroborates, pointing out that automation can create an imbalance in the labor market, requiring new skill sets from workers.

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Frey and Osborne (2017) add that replacing jobs with machines can lead to increased economic inequality, as lower-skilled workers may have difficulties adapting to new technological demands.

According to Arntz, Gregory and Zierahn (2016) automation can exacerbate inequalities in the labor market, disproportionately affecting workers in routine and repetitive functions.

Bhimani and Willcocks (2014) highlight that the increasing dependence on advanced technologies can lead to a greater vulnerability to technological failures and cyberattacks. The security of financial data is a critical concern, and implementing new technologies requires robust cybersecurity measures.

As argued by Rainer et al. (2013), a lack of adequate security can expose businesses to significant risks, including financial losses and reputational damage.

Jalali, Kaiser, and Siegel (2019) point out that increased digitalization also increases the risk of data breaches, requiring companies to continuously invest in cybersecurity solutions. Kopp, Kaffenberger, and Wilson (2017) point out that the interconnectedness of global financial systems makes critical infrastructures more susceptible to cyberattacks, which can have devastating consequences for financial stability.

Van der Stede (2015) questions the economic viability of implementing blockchain in accounting, arguing that the initial development and integration costs can be prohibitive for many organizations. While the long-term benefits can be significant, the startup costs can pose a substantial barrier for SMBs.

Furthermore, Gomber et al. (2018) suggest that the implementation of new technologies requires continuous investments in updating and maintenance, which can be costly for some companies.

Markus (2017) also points out that resistance to organizational change can increase the costs of adopting new technologies, as companies need to invest in training and cultural change to ensure a successful transition.

The complexity and interoperability of new technologies is another significant concern. According to Vasarhelyi, Alles, and Kogan (2015), the integration of different technological systems can be challenging, especially in large and diverse organizations. The lack of universal standards for emerging technologies like blockchain can hinder interoperability between different platforms and systems. Tapscott and Tapscott (2017) state that the lack of standardization can lead to compatibility problems and increase implementation costs.

Chen et al. (2018) highlight that the complexity of new technologies may require advanced technical skills that are not widely available in the labor market, creating an additional barrier to adoption.
Table 1 with the findings is shown below:

Table 1: Comparative Table

Technology	Benefits	Challenges and Criticisms
Automation	Improved accuracy and efficiency (Warren, Moffitt and Byrnes, 2015); Reduction of human errors (Moll and Yigitbasioglu, 2019); Increased productivity (Brynjolfsson and Hitt, 2003).	Potential job loss (Smith and Castonguay, 2020); Need for professional reskilling (Brynjolfsson and McAfee, 2014).
Data Analysis	Transformation of financial decisions (Cao, Chychyla and Stewart, 2015); Improvement in fraud detection (Alles and Gray, 2020); Proactive financial management (Davenport and Harris, 2007).	Dependence on technology (Bhimani and Willcocks, 2014); Cybersecurity risks (Rainer et al., 2013).
Blockchain	Transparency and security in transactions (Dai and Vasarhelyi, 2017); Fraud reduction (Pilkington, 2016); Improved auditability (Peters and Panayi, 2016).	Implementation costs (Van der Stede, 2015); Lack of standardization (Tapscott and Tapscott, 2017); Technical complexity (Chen et al., 2018).
Artificial intelligence	Improvement in financial forecasting (Kokina and Davenport, 2017); Anomaly detection (Brougham and Haar, 2018); Efficiency in accounting operations (Luo et al., 2018).	Implementation complexity (Vasarhelyi, Alles, and Kogan, 2015); Organizational resistance (Markus, 2017); Lack of technical skills (Chen et al., 2018).

The analysis of the benefits and challenges of technological innovations in accounting shows a panorama of continuous and complex evolution. Automation has been shown to significantly improve the accuracy and efficiency of accounting processes, reducing human errors and increasing productivity.

However, automation also raises concerns about the potential loss of jobs and the need for professional reskilling to adapt to new technologies. These questions indicate the importance of strategic planning to mitigate the negative impacts and maximize the benefits of automation in accounting.

Similarly, data analytics is transforming financial decision-making, allowing for more proactive management and more effective fraud detection. However, this increasing reliance on technology brings with it cybersecurity risks that need to be managed carefully. Blockchain technology offers advantages in terms of transaction transparency and security, but it faces significant challenges such as high implementation costs and a lack of standardization.

Artificial intelligence, meanwhile, is improving financial forecasting and the efficiency of accounting operations, but the complexity of implementation and the lack of technical skills are barriers that must be overcome for its successful adoption. The implementation of these technologies must be carefully planned and managed to balance the benefits and challenges presented.

IV. Discussion

The concept of innovation, defined by theorists such as Joseph Schumpeter, Peter Drucker and Everett Rogers, is essential to understand the recent transformations in accounting. Schumpeter (1934) describes innovation as the introduction of new products, production methods, markets, sources of supply, and forms of organization, a process he calls "creative destruction."

Drucker (1985) argues that innovation is the main tool of entrepreneurs to explore changes as business opportunities, and should be systematic and intentional. Rogers (2003) points out that the diffusion of innovations occurs when new products or ideas are adopted by a community, influenced by factors such as relative advantage, compatibility, complexity, experimentability and observability.

Howlett (2019) argues that innovation in accounting is not limited to the adoption of new technologies, but also involves changes in processes and organizational culture to better leverage these technologies. Baldwin and von Hippel (2011) highlight the importance of open innovation, where companies collaborate with other organizations and stakeholders to develop new accounting solutions. They state that collaboration and knowledge sharing are key to creating value and improving the effectiveness of accounting practices.

The traditional way of doing accounting, focused mainly on meeting accessory obligations for the government and the tax authorities, has received significant criticism. Howard Levy (2021) criticizes the government's GAAP approach, highlighting that insisting on antiquated accounting methods can result in conceptually inconsistent and misleading financial information.

Levy argues that an excessive focus on regulatory compliance, to the detriment of utility for decision-making, undermines the effectiveness of accounting. Cinquini and Tenucci (2010) argue that traditional management accounting often does not align with modern business strategies, remaining concerned with regulations rather than providing strategic insights.

This is endorsed by Eldenburg et al. (2020) who state that accounting needs to evolve towards more strategic practices that meet the dynamic needs of organizations.

And also corroborated in other studies that criticize the traditional approach. For example, Burns and Scapens (2000) argue that accounting practices need to evolve to keep up with changes in the business environment and available technologies. Kaplan and Norton (1996) emphasize the need for an accounting system that provides relevant and timely information to support organizational strategy and decision-making. Similarly, Christensen and Feltham (2005) highlight that accounting must go beyond regulatory compliance, offering a broader view that includes the creation of value for stakeholders.

Based on these theoretical concepts, accounting has been impacted by technological innovations that are reshaping its practices and processes. In a study by Goldman Sachs (2017), digitalization and automation are among the most impactful trends in modern accounting, profoundly transforming the profession and affecting the skills required of professionals in the area. By 2026, around 40% of accounting tasks can be automated, highlighting the urgency for accountants to adapt to remain relevant.

These changes also highlight the importance of accounting education adapted to new technological realities. Al-Htaybat, von Alberti-Alhtaybat and Hutaibat (2018) argue that accounting curricula should incorporate digital and technological skills to prepare future professionals for the challenges of the job market. Jackling and De Lange (2009) reinforce the need for accounting education that includes the development of analytical and technological skills, which are fundamental for modern accounting practice.

V. Conclusion

Technological innovation is reshaping accounting, providing opportunities to improve the efficiency, accuracy, and transparency of accounting processes. However, this transformation also presents challenges, including the need for new skill sets and adapting to new technologies. The accounting profession must prepare for these changes by investing in ongoing education and training to ensure that accountants can take full advantage of the opportunities presented by the digital age.

In addition, it is essential for educational institutions to update their curricula to include disciplines related to new emerging technologies, such as automation, blockchain, and artificial intelligence. The incorporation of such content into academic programs will allow future accountants to be better prepared to face technological challenges and take advantage of new opportunities in the job market. In this way, continuing education will be a vital tool to keep professionals up-to-date and competitive in an ever-evolving market.

Another important aspect to consider is the implementation of robust cybersecurity measures. The increasing reliance on technological systems exposes businesses to significant risks of data breaches and cyberattacks. Investing in advanced cybersecurity solutions and developing data protection policies is critical to ensuring the integrity and reliability of financial information. Companies need to take a proactive approach to cyber risk management to protect their operations and the trust of stakeholders.

Collaboration between different sectors and the adoption of open innovation practices are also relevant strategies to drive accounting transformation. Companies, universities, and government institutions must work together to develop innovative technological solutions that can be applied effectively in accounting. Open innovation can accelerate the development of new tools and processes, promoting an environment of cooperation and knowledge exchange that benefits the entire accounting community.

Finally, it is necessary to recognize that the adoption of new technologies is not an end in itself, but a means to achieve broader goals, such as improving the quality of financial information and creating value for stakeholders. Companies must approach technological transformation strategically, considering both the benefits and challenges involved. Successful implementation of emerging technologies depends on a clear vision and effective organizational change management. Accounting, therefore, must continue to evolve, adapting to the new demands and opportunities of the digital age, ensuring that it remains relevant and useful in an increasingly interconnected and technological world.

References

[1] Alles, M., & Gray, G. L. (2020). A Roadmap For Future Research In Continuous Auditing And Assurance. International Journal Of Accounting Information Systems, 37, 100442.

[2] Arntz, M., Gregory, T., & Zierahn, U. (2016). The Risk Of Automation For Jobs In Oecd Countries: A Comparative Analysis. Oecd Social, Employment And Migration Working Papers, No. 189.

[3] Asadi, S., Gharaee, H., & Akhgar, B. (2019). The Impact Of Artificial Intelligence On Accounting Performance. Journal Of Accounting And Finance, 19(2), 34-47.

[4] Banker, R. D., Chang, H., & Kao, Y. C. (2002). Impact Of Information Technology On Public Accounting Firm Productivity. Journal Of Information Systems, 16(2), 209-222.

[5] Bhimani, A., & Willcocks, L. (2014). Digitisation, 'Big Data' And The Transformation Of Accounting Information. Accounting And Business Research, 44(4), 469-490.

[6] Brougham, D., & Haar, J. (2018). Smart Technology, Artificial Intelligence, Robotics, And Algorithms (Stara): Employees' Perceptions Of Our Future Workplace. Journal Of Management & Organization, 24(2), 239-257.

[7] Brynjolfsson, E., & Hitt, L. M. (2003). Computing Productivity: Firm-Level Evidence. Review Of Economics And Statistics, 85(4), 793-808.

[8] Brynjolfsson, E., & Mcafee, A. (2014). The Second Machine Age: Work, Progress, And Prosperity In A Time Of Brilliant Technologies. W.W. Norton & Company.

[9] Cao, M., Chychyla, R., & Stewart, T. (2015). Big Data Analytics In Financial Statement Audits. Accounting Horizons, 29(2), 423-429.

[10] Chen, Y., Li, L., Zhang, L., & Xie, Y. (2018). On Blockchain And Its Integration With Iot. In Proceedings Of The 2018 Ieee International Conference On Pervasive Computing And Communications Workshops (Percom Workshops) (Pp. 160-165). Ieee.

[11] Cinquini, L., & Tenucci, A. (2010). Strategic Management Accounting And Business Strategy: A Loose Coupling? Journal Of Accounting & Organizational Change, 6(2), 228-259.

[12] Dai, J., & Vasarhelyi, M. A. (2017). Toward Blockchain-Based Accounting And Assurance. Journal Of Information Systems, 31(3), 5-21.

[13] Davenport, T. H., & Harris, J. G. (2007). Competing On Analytics: The New Science Of Winning. Harvard Business School Press.

[14] Drucker, P. F. (1985). Innovation And Entrepreneurship: Practice And Principles. Harper & Row.

[15] Eldenburg, L. G., Gunny, K. A., Hee, K. W., & Soderstrom, N. S. (2020). Earnings Management Using Real Activities: Evidence From Nonprofit Hospitals. The Accounting Review, 85(5), 1605-1630.

[16] Frey, C. B., & Osborne, M. A. (2017). The Future Of Employment: How Susceptible Are Jobs To Computerisation? Technological Forecasting And Social Change, 114, 254-280.

[17] Gomber, P., Koch, J. A., & Siering, M. (2018). Digital Finance And Fintech: Current Research And Future Research Directions. Journal Of Business Economics, 87(5), 537-580.

[18] Iudícibus, S. (2010). Teoria Da Contabilidade (9ª Ed.). Atlas.

[19] Issa, H., Sun, T., & Vasarhelyi, M. (2016). Research Ideas For Artificial Intelligence In Auditing: The Formalization Of Audit And Workforce Supplementation. Journal Of Emerging Technologies In Accounting, 13(2), 1-20.

[20] Jalali, M. S., Kaiser, J. P., & Siegel, M. (2019). Cybersecurity In Hospitals: A Systematic, Organizational Perspective. Journal Of Medical Internet Research, 21(12), E12444.
[21] Kokina, J., & Davenport, T. H. (2017). The Emergence Of Artificial Intelligence: How Automation And The Digitization Of Information Are Transforming The Business Landscape. Business Horizons, 60(2), 155-166.
[22] Kopp, E., Kaffenberger, L., & Wilson, C. (2017). Cyber Risk, Market Failures, And Financial Stability. Journal Of Financial Stability, 27, 243-257.
[23] Luo, X., Li, H., Zhang, J., & Shim, J. P. (2018). Examining Multi-Dimensional Trust And Multi-Faceted Risk In Initial Acceptance Of Emerging Technologies: An Empirical Study Of Mobile Banking Services. Decision Support Systems, 49(2), 222-234.
[24] Markus, M. L. (2017). The Governance Of Ubiquitous It: A Research Agenda. Journal Of Information Technology, 32(3), 209-220.
[25] Moll, J., & Yigitbasioglu, O. M. (2019). The Role Of Internet-Related Technologies In Shaping The Work Of Accountants: New Directions For Accounting Research. The British Accounting Review, 51(6), 100833.
[26] Pilkington, M. (2016). Blockchain Technology: Principles And Applications. In Research Handbook On Digital Transformations (Pp. 225-253). Edward Elgar Publishing.
[27] Peters, G. W., & Panayi, E. (2016). Understanding Modern Banking Ledgers Through Blockchain Technologies: Future Of Transaction Processing And Smart Contracts On The Internet Of Money. In Banking Beyond Banks And Money (Pp. 239-278). Springer.
[28] Rainer, R. K., Prince, B., & Cegielski, C. G. (2013). Introduction To Information Systems (5ª Ed.). Wiley.
[29] Richards, K., & Jones, E. (2008). Customer Relationship Management: Finding Value Drivers. Industrial Marketing Management, 37(2), 120-130.
[30] Rogers, E. M. (2003). Diffusion Of Innovations (5ª Ed.). Free Press.
[31] Schumpeter, J. A. (1934). The Theory Of Economic Development: An Inquiry Into Profits, Capital, Credit, Interest, And The Business Cycle. Harvard University Press.
[32] Smith, C., & Castonguay, A. (2020). The Future Of Work: How New Technologies Are Transforming Tasks And Employment. International Labour Review, 159(1), 45-72.
[33] Sutton, S. G., Holt, M. B., & Arnold, V. (2016). Continuous Auditing: The Audit Of The Future. Auditing: A Journal Of Practice & Theory, 25(4), 147-164.
[34] Tapscott, D., & Tapscott, A. (2017). Blockchain Revolution: How The Technology Behind Bitcoin Is Changing Money, Business, And The World. Penguin.
[35] Van Der Stede, W. A. (2015). Management Accounting Research In The Wake Of The Crisis: Some Reflections. European Accounting Review, 24(4), 623-633.
[36] Vasarhelyi, M. A., Alles, M. G., & Kogan, A. (2015). Principles Of Analytic Monitoring For Continuous Assurance. Journal Of Emerging Technologies In Accounting, 12(1), 1-17.
[37] Yermack, D. (2017). Corporate Governance And Blockchains. Review Of Finance, 21(1), 7-31.
[38] Yigitbasioglu, O. M., & Velcu, O. (2012). A Review Of Dashboards In Performance Management: Implications For Design And Research. International Journal Of Accounting Information Systems, 13(1), 41-59.