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IMPROVING THE MECHANICS OF CONTROLLING THE FUNCTIONING OF THE BANKING SYSTEM IN THE DIGITAL ECONOMY

Abstract: The advent of the digital economy has transformed the banking sector, introducing new opportunities and challenges for controlling and regulating the banking system. This article examines the necessary improvements in the mechanics of control within the banking sector to ensure stability, efficiency, and security in a rapidly evolving digital environment. The literature review highlights key areas of focus, including the role of digital technologies, enhanced regulatory frameworks, and the importance of cybersecurity. The findings suggest that a holistic approach, combining advanced technological tools with robust regulatory oversight, is essential for effective control in the digital economy.

Keywords: Digital economy, banking system, control mechanisms, regulatory frameworks, cybersecurity, financial stability

Introduction

The digital economy has fundamentally altered the landscape of the global banking system, introducing both unprecedented opportunities for innovation and significant challenges for control and regulation. As banks increasingly adopt digital technologies to improve efficiency and customer service, the need for robust control mechanisms has become more critical. This article explores the ways in which the mechanics of controlling the functioning of the banking system can be improved to adapt to the demands of the digital economy. It considers both traditional and innovative approaches, emphasizing the importance of integrating technology and regulatory frameworks.

Literature Review

The digital transformation of the banking sector has been widely discussed in academic and industry literature, with a particular focus on the implications for control and regulation. According to Minto et al. (2017), the digital economy necessitates a rethinking of traditional control mechanisms, as the pace of technological change often outstrips the capacity of existing regulatory frameworks. Similarly, Arner, Barberis, and Buckley (2017) argue that the integration of digital technologies into banking operations requires new approaches to ensure financial stability and protect against systemic risks.

The literature also highlights the importance of cybersecurity in the context of the digital economy. As noted by Kshetri (2017), the increasing reliance on digital platforms for banking services has made cybersecurity a critical component of effective control. The rise of cyber threats, including data breaches and hacking, has led to a growing recognition of the need for robust security measures to safeguard the integrity of the banking system.

Furthermore, the role of big data and artificial intelligence (AI) in enhancing control mechanisms has been explored by several scholars. According to Tsaih et al. (2018), big data analytics can significantly improve risk management by providing deeper insights into customer behavior and market trends. AI, on the other hand, offers the potential to automate control processes, reducing human error and increasing efficiency.

Improving control mechanisms in the digital economy:

The integration of digital technologies is essential for improving the control mechanisms of the banking system in the digital economy. As Minto et al. (2017) suggest, the adoption of advanced technologies such as blockchain, AI, and big data analytics can enhance transparency, reduce operational risks, and improve decision-making processes. Blockchain, for instance, offers a decentralized ledger system that can increase the transparency and security of transactions, making it easier for regulators to monitor and control banking activities.

AI and machine learning can automate and improve the accuracy of control processes. For example, AI-driven algorithms can analyze large datasets to detect unusual patterns of behavior, which may indicate fraud or other irregular activities (Tsaih et al., 2018). These technologies can also be used to enhance compliance monitoring, ensuring that banks adhere to regulatory requirements in real-time.

The digital economy requires a rethinking of regulatory frameworks to address the unique challenges posed by digital banking. Arner, Barberis, and Buckley (2017) emphasize the need for regulators to develop more flexible and adaptive approaches that can keep pace with technological advancements. This includes the creation of regulatory sandboxes, which allow banks to experiment with new technologies and business models under the supervision of regulators.

Moreover, the global nature of the digital economy necessitates greater international cooperation among regulators. As banking services increasingly cross national borders, there is a growing need for harmonized regulatory standards that can ensure consistent control across different jurisdictions (Zetzsche et al., 2018). This can help to prevent regulatory arbitrage, where banks seek to exploit differences in national regulations to avoid stricter controls.

Cybersecurity is a critical component of controlling the functioning of the banking system in the digital economy. Kshetri (2017) points out that as banks become more reliant on digital platforms, they are increasingly vulnerable to cyber-attacks. To address this, banks must invest in robust cybersecurity measures, including advanced encryption technologies, secure authentication methods, and real-time threat detection systems.

In addition to technological solutions, a strong cybersecurity culture within banks is essential. This includes regular training for employees on cybersecurity best practices and the development of comprehensive incident response plans. Furthermore, collaboration between banks and government agencies is crucial to ensure a coordinated response to cyber threats and to share information on emerging risks.

Big data and AI have the potential to revolutionize the way control mechanisms are implemented in the banking sector. By analyzing vast amounts of data, banks can gain insights into customer behavior, market trends, and potential risks (Tsaih et al., 2018). This allows for more informed decision-making and the ability to proactively address issues before they escalate.

AI can also automate many aspects of control, reducing the likelihood of human error and increasing efficiency. For example, AI-powered systems can monitor transactions in real-time, flagging any suspicious activities for further investigation. This not only improves the accuracy of control processes but also allows banks to respond more quickly to potential threats.

Conclusion

The digital economy presents both challenges and opportunities for controlling the functioning of the banking system. To effectively manage these challenges, banks must integrate digital technologies, enhance regulatory frameworks, strengthen cybersecurity measures, and leverage big data and AI. By adopting a holistic approach that combines technological innovation with robust regulatory oversight, banks can ensure stability, efficiency, and security in a rapidly evolving digital environment.

Future research and practice should focus on further refining these control mechanisms and exploring new ways to address the emerging risks of the digital economy. As the banking sector continues to evolve, the ability to adapt and improve control mechanisms will be crucial for maintaining financial stability and protecting against systemic risks.

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