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# *The Digital Transformation of Accounting Information Systems under Financial Technology: Where Will Small Businesses Go?*

**Ruoxuan Chen**

*School of Business, Zhengzhou University, Zhengzhou, China*
*ellacchen1213@163.com*

***Abstract:*** This paper examines the impact of financial technology (FinTech) on the digital transformation of accounting information systems (AIS) for small businesses. With the rapid advancement of information technology, FinTech has emerged as a key driver of digital transformation across various industries. For small businesses, leveraging FinTech to enhance the efficiency and accuracy of their AIS is crucial for sustainable development. The paper first delves into the role of FinTech in accounting innovation, particularly highlighting how blockchain technology can revolutionize accounting processes and enhance transparency. It then discusses how FinTech facilitates capital allocation optimization and data-driven strategic competitiveness, leading to smarter corporate accounting. The current status of digital transformation in small business accounting systems is explored, revealing the digital divide between large and small enterprises and the positive influence of FinTech and SaaS models on small medium enterprises(SMEs). However, small businesses encounter numerous challenges during this transformation, including technological and resource constraints, organizational and cultural barriers, and integration issues. Finally, practical and feasible solutions are proposed, emphasizing the establishment of a collaborative digital transformation ecosystem and the upgrading of technical infrastructure to assist small businesses in overcoming obstacles and successfully digitizing their AIS.

***Keywords:*** FinTech, Digital Transformation, Accounting Information Systems, Small Businesses, Blockchain

## 1. Introduction

Fintech is defined as the introduction of new technologies into the financial sector, leading to a revolution in the financial industry[1]. It represents the integration of finance and technology, and the scope of fintech includes technological innovation (including but not limited to mobile payments, peer-to-peer loans, crowdfunding, blockchain, cryptocurrency, and robot investment), market disruption, global influence, and more[2].

With the rapid development of information technology, financial technology (FinTech) has gradually become an important force in promoting digital transformation in various industries. Especially for small businesses, how to use financial technology to improve the efficiency and accuracy of accounting information systems has become the key to their sustainable development.

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Small businesses often face challenges such as insufficient technological resources and limited funding, thus facing unique difficulties in the process of digital transformation[3].

This review aims to reveal the role of financial technology in the digital transformation of accounting information systems for small enterprises and the reasons why small enterprises have not completed the digital transformation of accounting information systems. It will also look at the problems small businesses are having with the digital transformation of accounting information systems in the context of the growth of financial technology and offer small businesses transformation solutions that they can actually use.

## 2. The Impact of FinTech on Accounting Innovation

### 2.1. Fintech-Driven Reconstruction of Accounting Processes and Information Transparency

Taking blockchain technology as an example. Blockchain is described as a financial technology (FinTech). This technology can securely store accounting data and improve the efficiency of transaction accounting. The following will elaborate on how blockchain technology improves the transparency and trust of accounting practices from two aspects.

Firstly, it is real-time accounting based on blockchain technology. Due to its ability to immediately share basic information, blockchain enables a real-time, verifiable, and transparent accounting ecosystem where managers, accountants, business partners, and investors can collaborate to verify transactions and provide reliable evidence for multi-party verification[4]. Real-time accounting can significantly diminish the likelihood of managers taking advantage of situations, as it enables all involved parties to promptly identify any questionable asset transfers or other potentially risky and contradictory transactions[5].

Furthermore, I'd like to highlight the triple accounting method. By utilizing blockchain technology, triple input accounting has established a shared ledger accessible within the business network[6]. This shared ledger leverages records verified by multiple parties, ultimately enhancing transparency and trustworthiness[7]. Another possible application is triple-entry bookkeeping[8].

### 2.2. Intelligent Corporate Accounting: Capital Allocation Optimization and Data-Driven Strategic Competitiveness

Digital transformation has really taken off in both public and private organizations. It refers to a process in which digital technologies enhance people's lives and alter business operations. This not only affects how competitive companies are but also helps them move towards achieving the Sustainable Development Goals, or SDGs[9].

Fintech, by introducing fresh financing methods like equity crowdfunding and P2P loans, not only widens the ways enterprises can raise money and lowers their financing costs, but also offers more varied loan choices to reputable borrowers, gaining a big edge in corporate financing[10]. These financing perks and enhanced efficiency directly boost accounting innovation in businesses.

In accounting practice, using fintech tools has made handling and examining financial data quicker and more precise. For instance, big data and AI technologies enable real-time gathering, merging, and scrutinizing of loads of financial data from various sources, giving enterprises more thorough and detailed information to make financing decisions[8]. This helps firms come up with smarter fund allocation plans and tweak their strategies in line with market shifts and business demands, optimizing their fund usage. Additionally, by utilizing data-driven methods, companies can enhance their comprehension of market trends, monitor their competitors, adjust their strategies, and thrive in highly competitive markets.

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### 2.3. From Compliance Audits to Digital Advisory Ecosystems: Value-Added Service Transition in Accounting Firms

The Big Four accounting firms, namely Deloitte, Ernst & Young, PwC, and KPMG, leverage financial technology in various stages of auditing, such as planning, risk assessment, transaction and analytical testing, as well as audit paper preparation[6]. This technology helps them enhance audit services by speeding up data analysis, improving accuracy, and boosting customer service.

However, due to the rapid advancements in financial technology, accounting firms are now shifting towards offering value-added services. In the realm of accounting innovation, the role of accountants has subtly evolved. They are now more involved in decision-making processes rather than merely gathering information[11]. This is where accountants can truly shine as consultants, adding significant value to their clients.

## 3. Current Status of Digital Transformation in Small Business Accounting Systems

### 3.1. The Digital Divide and Trends between Large and Small Enterprises

The Big Four accounting firms are at the forefront of the technological revolution in accounting, eagerly embracing innovative technologies like blockchain and AI to transform their service offerings[12]. For instance, Deloitte set up the Rubix unit and rolled out blockchain plug-and-play products to cater to the soaring customer demand for blockchain transactions[13]

However, when it comes to the digital transformation of accounting information systems, small businesses are struggling to keep up with large enterprises. With their vast resources and advantages, big companies often find it simpler and quicker to go digital. But small and medium-sized enterprises (SMEs) need more external help, particularly in fintech, to facilitate the digital upgrade of their accounting systems[10] . Despite this, SMEs are showing a growing interest in digital transformation. For instance, China's thriving mobile payment and fintech platforms are a testament to the increasing reliance and confidence of SMEs in digital solutions[14]. And since the COVID-19 pandemic hit, business surveys worldwide have revealed that the swift adoption of remote work and digital sales channels in SMEs not only signals a major shift in their business models but also highlights the accelerated pace of digital transformation in their accounting information systems[15]. Ironically, the pandemic, while posing numerous challenges, has unexpectedly acted as a catalyst for the digital transformation of SMEs.

### 3.2. The Impact of Financial Technology and SaaS Models on SME Accounting Systems

Fintech firms and new digital platforms have played a crucial role in advancing the digitization of accounting systems for SMEs. They offer financing options like P2P loans and mobile payments, giving SMEs more financial leeway to fund their digital transformation efforts. The emergence of these fintech companies not only opens up new financing avenues for small and medium-sized businesses but also signals a promising shift towards digitalization in their accounting practices[3].

As financial technology advances, SMEs are increasingly opting for digital solutions to manage their finances. Some of them have started leveraging cutting-edge technologies, including cloud computing, big data analytics, and artificial intelligence, to streamline their accounting processes, boosting both efficiency and accuracy[16].

Nevertheless, there are still SMEs that stick to traditional accounting methods, possibly because of factors like technology apprehension or resource constraints[16]. But it's encouraging to see that with the widespread adoption of cloud computing and SaaS models, these businesses can now easily access and implement these advanced digital tools[17]. Cloud-based accounting software and SaaS solutions offer a viable path to digital transformation for SMEs with limited resources.

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# 4. The Dilemmas of Digital Transformation in Small Business Accounting Systems

## 4.1. Technological and Resource Challenges

High cost is a major issue that small businesses face when considering the digital transformation of their accounting systems. From the previous discussion, we can understand that small businesses often face financing difficulties, and their limited financing channels can easily lead them into financial difficulties. This highlights the funding constraints that small businesses commonly face, and the high initial investment cost may become a major obstacle for them to adopt new technologies, including digital accounting systems[18].

In addition, technological readiness - the ability of enterprises to adopt, utilize, and benefit from information and communication technology while adapting to technological changes to maintain competitiveness - has become a key factor[9]. The level of technological readiness can determine how small businesses integrate digital technology to transform their business models. Unfortunately, insufficient technical skills are also a major challenge that small businesses are currently facing.

## 4.2. Organizational Structure and Cultural Barriers

In small businesses, there's this tense dynamic between the old-school way of doing things and the push to adopt new technologies, and it often leads to some serious organizational conflicts. As for digital transformation, which has kicked off this whole trend of informal networks springing up inside companies, kind of like a bottom-up movement. These networks can actually sidestep the slower, more formal channels and really get the digital transformation going[19]. But, here's the catch: when these new, informal roles don't line up with the formal structure, it can spark some major conflicts and power struggles that slow down the whole process.

And it's not just about the structure. There's also a significant cultural resistance to change. Some employees and managers are just resistant to change, and a lot of small businesses don't even realize how important digital accounting systems are[20]. So, these cultural barriers are definitely getting in the way at the company level.

## 4.3. Integration and External Environmental Pressures

During the digital transformation of accounting systems in small businesses, the challenge of integrating fintech solutions with existing processes stands out. Many small enterprises, constrained by limited resources, operate using a mix of traditional and digital systems, making it tough to achieve a smooth integration and resulting in a fragmented setup[16].

Furthermore, these businesses are under external pressure. The collaboration among researchers, institutions, and countries in the realms of financial technology and SMEs seems inadequate, leaving small businesses without the necessary support and resources to adopt digital accounting solutions[3]. Additionally, the dominance of traditional financial institutions and the slow response of regulatory bodies to new financial technologies have amplified the difficulties faced by small businesses in their digital transformation journey[20]. Worse still, worries about data security and privacy pose major hurdles. Fearing risks like cybersecurity threats and potential job losses, many small businesses are cautious about embracing new technologies and hesitate to embark on the path of digital transformation[10].

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## 5. Feasible Transformation Solutions for Small Business Accounting Systems under FinTech Opportunities

### 5.1. Establishing a Collaborative Digital Transformation Ecosystem with Stakeholder Linkage Mechanism

Securing external support for digitalization is crucial as the initial step towards a successful digital transformation for small and medium-sized enterprises[9]. The process of digital transformation has given rise to a vibrant digital ecosystem[19]. This ecosystem comprises a diverse group of co-creators, ranging from traditional stakeholders like customers, suppliers, and competitors to new players such as digital platform providers, data analysts, and cybersecurity firms[19]. To boost their competitiveness, enterprises are striving to enhance the functionality of their technological infrastructure and foster competitiveness with external suppliers. Consequently, it becomes evident that small and medium-sized enterprises must collaborate with financial institutions, fintech companies, industry associations, and policymakers to facilitate resource sharing and technology adaptation. Small and medium-sized enterprises should work together with all parties to explore the path of accounting system transformation in light of the opportunities of financial technology.

### 5.2. Upgrade of Technical Infrastructure

Small and medium-sized enterprises (SMEs) should prioritize the development of their employees' digital skills and embrace technological advancements tailored to their unique requirements[17]. A crucial aspect of this transformation is the concept of 'technology readiness,' which essentially measures how well SMEs can adapt, utilize, and capitalize on digital technologies. This concept underscores the significance of equipping the workforce and infrastructure of SMEs to effectively navigate and thrive in the era of digital transformation[17]. By focusing on these areas, SMEs can better position themselves to leverage technological advancements and remain competitive in the evolving market landscape.

## 6. Conclusion

The digital transformation of accounting information systems for small businesses in the era of financial technology presents both opportunities and challenges. While large enterprises have the resources and advantages to quickly adopt innovative technologies like blockchain and AI, small businesses often face technological and resource constraints. However, the emergence of FinTech firms and new digital platforms, such as SaaS solutions, has provided SMEs with more financing options and advanced digital tools to facilitate their digital transformation. Despite these opportunities, small businesses still face organizational and cultural barriers, as well as challenges in integrating fintech solutions with existing processes. To successfully navigate the digital transformation journey, SMEs must collaborate with stakeholders, including financial institutions, fintech companies, and policymakers, to establish a collaborative digital transformation ecosystem. Additionally, upgrading technical infrastructure and enhancing employees' digital skills are crucial for small businesses to leverage technological advancements and remain competitive in the evolving market landscape. By addressing these challenges and seizing the opportunities presented by FinTech, small businesses can enhance the efficiency and accuracy of their accounting information systems, ultimately driving sustainable development. The limitations of this review lie in its relatively narrow scope, focusing primarily on the technical and operational aspects of FinTech's impact on small business accounting systems, without fully exploring its broader societal or ethical ramifications. Additionally, the proposed solutions may not universally apply to the diverse range of small businesses operating in various regions and industries.

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