

A Study on the Impact of Digital Transformation on the Quality of Accounting Information in Small Businesses: Evidence from Pune

Dr. Farhat Fatma Shaikh and Mrs. Dagma David

Assistant Professor Pillai College of Arts, Commerce and Science (Empowered Autonomous), New Panvel
Research Scholar Pillai College of Arts, Commerce and Science (Empowered Autonomous), New Panvel
farhatshaikh@mes.ac.in , dagmadavid1122@gmail.com

Abstract: *The rapid adoption of digital technologies has significantly transformed accounting practices, particularly within small and medium-sized enterprises (SMEs). This study explores the influence of digital transformation on the quality of accounting information (AIQ) among small businesses in Pune. Drawing upon existing literature and theoretical perspectives, including the Technology–Organization–Environment (TOE) framework, the research examines how digital tools contribute to improving the accuracy, reliability, timeliness, and comparability of financial data.*

The findings indicate that the use of digital accounting systems enhances transparency, reduces the likelihood of human errors, and supports more informed and efficient decision-making processes. Despite these advantages, the implementation of such technologies is often constrained by challenges such as limited technical knowledge, high adoption and maintenance costs, and organizational resistance to change within small businesses.

The study concludes that while digital transformation positively contributes to improving accounting information quality, its full potential can only be achieved through the support of effective government initiatives, adequate training programs, and the development of robust technological infrastructure within the Pune business ecosystem.

Keywords: digital transformation, accounting information quality, SMEs, cloud accounting, Pune, financial reporting

I. INTRODUCTION

Digital transformation refers to a comprehensive change in business operations resulting from the adoption of advanced technologies such as cloud computing, artificial intelligence, big data analytics, and automation (Vial, 2019). Within the accounting domain, this shift has significantly altered the manner in which financial information is captured, processed, analyzed, and communicated. Earlier reliance on manual accounting methods—often associated with delays, inconsistencies, and a higher risk of human error—is steadily being replaced by digital systems that offer real-time data processing, improved precision, and greater accessibility. Small and medium-sized enterprises (SMEs) are central to the economic growth of developing nations like India. In rapidly developing cities such as Pune, these enterprises contribute substantially to employment generation, innovation, and regional economic advancement. However, SMEs commonly face constraints such as limited financial resources, inadequate technical expertise, and inefficient financial management systems. In this context, the quality of accounting information becomes a critical determinant of their operational efficiency, sustainability, and competitive position. Accounting information quality (AIQ) denotes the extent to which financial data is reliable and useful for decision-making. High-quality information is typically characterized by attributes such as accuracy, relevance, reliability, timeliness, and comparability (Romney & Steinbart, 2021). Conversely, poor-quality financial information can lead to ineffective decisions, misallocation of resources, and diminished trust among stakeholders. The implementation of digital technologies in accounting processes holds considerable potential to enhance AIQ. By automating repetitive tasks such as data entry, billing, and report generation,



digital systems help minimize human intervention and reduce the likelihood of errors. Additionally, they provide immediate access to financial data, thereby improving the timeliness and relevance of information for managerial decisions. Enhanced transparency and audit trails further strengthen accountability and reduce the chances of fraud or manipulation (Alzeban, 2021).

In the Indian context, policy initiatives such as the introduction of the Goods and Services Tax (GST) and the broader push toward digitalization have encouraged the adoption of digital accounting solutions among small businesses. Pune, being a prominent hub for information technology and industry, presents a unique business landscape where traditional practices coexist with technologically advanced systems. This duality creates both opportunities for innovation and challenges in adopting digital accounting practices. Despite these developments, the level of digital adoption among SMEs in Pune remains uneven. Several barriers continue to impede progress, including high initial costs, limited digital literacy, resistance to organizational change, and concerns related to data privacy and security. Moreover, while international research highlights a positive association between digital transformation and improved accounting information quality, there is a noticeable lack of region-specific studies that examine these relationships within localized settings such as Pune. Accordingly, this study aims to address this research gap by evaluating the influence of digital transformation on the quality of accounting information in SMEs operating in Pune. By integrating existing theoretical perspectives with the local business environment, the study seeks to provide a comprehensive understanding of the benefits, challenges, and future potential of digital accounting practices in this context.

II. LITERATURE REVIEW

2.1 Digital Transformation in SMEs

This section presents a comprehensive review of significant studies related to digital transformation and accounting information quality (AIQ). Each study is summarized with its main findings and its relevance to the current research.

1. **Vial (2019) – “Understanding Digital Transformation: A Review and a Research Agenda”**
This study develops a conceptual framework explaining digital transformation and its influence on organizational processes. It emphasizes how emerging technologies reshape business models and enhance operational effectiveness.
Relevance: It provides a theoretical base for understanding the impact of digital transformation on accounting systems and information quality.
2. **Alzeban (2021) – “The Impact of Digital Transformation on Financial Reporting Quality in SMEs”**
This research analyzes how digital technologies improve financial reporting by increasing accuracy and minimizing errors. It establishes a positive link between digital adoption and transparency.
Relevance: It directly supports the idea that digital transformation enhances accounting information quality in SMEs.
3. **Grande, Estébanez, and Colomina (2011) – “The Impact of Accounting Information Systems on Performance Measures”**
This study investigates the effect of accounting information systems (AIS) on SME performance, concluding that AIS improves efficiency and decision-making.
Relevance: It highlights the role of digital accounting systems in strengthening financial information quality and organizational performance.
4. **Nguyen and Nguyen (2020) – “Digital Transformation and Firm Performance”**
This research explores the connection between digital transformation and firm performance in emerging economies, focusing on improvements in real-time reporting and decision-making.
Relevance: It reinforces the importance of timeliness and relevance in accounting information.
5. **Moll and Yigitbasioglu (2019) – “The Role of Internet-Related Technologies in Shaping Accounting Work”**
This paper discusses how internet-based technologies are transforming accounting functions through automation and data analytics.



Relevance: It explains how digital tools enhance transparency and reduce manual errors.

6. **Nayak, Bhattacharyya, and Krishnamoorthy (2022) – “Adoption of Digital Accounting Systems in Indian SMEs”**

This study examines the opportunities and challenges of adopting digital accounting systems in India, identifying barriers such as high costs and lack of technical skills.

Relevance: It provides context-specific insights relevant to SMEs in Pune.

7. **Susanto (2018) – “Accounting Information System Quality and Governance”**

This research focuses on the relationship between AIS quality and accounting information quality, concluding that better systems lead to more reliable financial data.

Relevance: It establishes a strong connection between system effectiveness and AIQ.

8. **Soudani (2012) – “The Usefulness of Accounting Information Systems for Organizational Performance”**

This study highlights the contribution of AIS to improving efficiency and decision-making within organizations.

Relevance: It supports the role of accounting systems in enhancing both performance and information quality.

9. **Bharadwaj et al. (2013) – “Digital Business Strategy”**

This paper explains how digital strategies integrate information technology with business operations to create value.

Relevance: It provides a strategic perspective on how digital transformation improves accounting practices.

10. **Romney and Steinbart (2021) – “Accounting Information Systems” (Book)**

11. This book outlines the fundamentals of AIS and the characteristics of high-quality accounting information.

Relevance: It serves as a foundational source for understanding AIQ and system performance.

Overall, the literature consistently suggests that digital transformation improves accounting information quality by enhancing accuracy, timeliness, transparency, and decision-making. However, challenges such as financial constraints, limited technical expertise, and resistance to change remain significant, particularly for SMEs.

2.2 Digital Transformation in SMEs (Conceptual Overview)

Digital transformation in SMEs involves the adoption of technologies such as enterprise resource planning (ERP) systems, cloud-based accounting, and automation tools. These technologies help improve operational efficiency and reduce costs (Bharadwaj et al., 2013).

Research indicates that the adoption of digital technologies is influenced by factors such as organizational readiness, managerial support, and external environmental pressures (Tornatzky & Fleischer, 1990). However, SMEs often face limitations such as inadequate resources and lack of technical expertise (Nayak et al., 2022).

2.3 Accounting Information Quality (AIQ)

Accounting information quality refers to the usefulness of financial data in supporting decision-making processes. According to Susanto (2018), high-quality information must be accurate, reliable, relevant, and timely.

Accounting information systems (AIS) play an essential role in ensuring data quality by standardizing procedures and minimizing manual intervention (Grande et al., 2011).

2.4 Impact of Digital Transformation on AIQ

Digital transformation influences accounting information quality in multiple ways:

- Accuracy: Automation reduces the risk of human errors in data entry and calculations (Alzeban, 2021).
- Timeliness: Real-time processing enables faster generation of financial reports (Nguyen & Nguyen, 2020).
- Transparency: Digital records improve traceability and help prevent fraud (Moll & Yigitbasioglu, 2019).
- Comparability: Standardized reporting formats ensure consistency across different periods (Soudani, 2012).



2.5 Theoretical Framework

This study is grounded in the following theoretical perspectives:

- Technology–Organization–Environment (TOE) Framework (Tornatzky & Fleischer, 1990)
- Information Systems Theory

These frameworks explain how technological, organizational, and environmental factors influence the adoption of digital technologies and their outcomes.

III. RESEARCH GAP

Although a substantial body of international research exists, there remains a noticeable lack of empirical evidence in certain areas, particularly concerning digital transformation within Indian SMEs, location-specific studies focusing on cities such as Pune, and the real-world challenges encountered by small businesses.

This study aims to fill these gaps by providing a context-driven analysis that reflects the unique conditions of the local business environment.

IV. RESEARCH OBJECTIVES

1. To evaluate the effect of digital transformation on the quality of accounting information (AIQ).
2. To determine the key factors that influence the adoption of digital technologies in SMEs.
3. To assess the challenges encountered by small businesses in Pune.
4. To propose suitable strategies for enhancing accounting information quality.

V. RESEARCH METHODOLOGY

5.1 Research Design

The study follows a descriptive and analytical research design, relying primarily on secondary data sources.

5.2 Data Sources

The data for this study has been collected from:

- Scholarly peer-reviewed journals
- Academic textbooks and reference materials
- Industry and market research reports

5.3 Method of Analysis

The analysis is carried out using the following methods:

- Synthesis of existing literature
- Comparative evaluation of previous studies
- Context-based interpretation of findings

5.4 Scope of the Study

- The study concentrates on small businesses located in Pune.
- It evaluates the influence of digital transformation on accounting information quality (AIQ).
- The research includes digital tools such as cloud-based accounting systems, automation technologies, and GST-compliant platforms.
- It focuses on key dimensions of AIQ, including accuracy, reliability, timeliness, and comparability.
- The study is entirely based on secondary data and previously published research.
- It does not involve primary data collection or quantitative/statistical analysis.



- The conclusions are specific to the selected context and may not be applicable to large organizations or other geographical regions.

VI. DISCUSSION: PUNE CONTEXT

Pune has developed into a prominent center for business and information technology, which has accelerated the adoption of digital solutions among small and medium-sized enterprises (SMEs). A growing number of small businesses are now utilizing GST-compliant applications and cloud-based accounting systems to manage their financial operations.

Advantages of Digital Transformation

- Enhances accuracy by minimizing errors associated with manual accounting processes
- Facilitates real-time financial reporting, enabling quicker and more informed decision-making
- Improves transparency and traceability of financial transactions
- Streamlines GST compliance and simplifies tax filing procedures
- Generates valuable financial insights through automated reporting and analytical tools
- Reduces paperwork and lowers operational expenses
- Strengthens data storage, accessibility, and security through cloud-based platforms

Challenges of Digital Transformation

- Significant initial investment required for implementing digital accounting solutions
- Limited technical expertise and low levels of digital literacy among employees
- Resistance to adopting new systems due to reliance on traditional accounting methods
- Concerns regarding data security, privacy, and potential cyber threats
- Dependence on stable internet connectivity and reliable digital infrastructure
- Difficulty in selecting appropriate software tailored to specific business requirements
- Continuous costs associated with system maintenance and software upgrades
- These challenges are consistent with earlier research on SMEs in developing economies, which highlights similar barriers to digital adoption (Nayak et al., 2022).

VII. FINDINGS

The study highlights several important findings:

- **Digital transformation enhances accounting information quality (AIQ)**
The implementation of digital accounting solutions significantly improves the quality of financial information by increasing its accuracy, timeliness, and reliability for decision-making purposes.
- **Automation minimizes errors and improves consistency**
The use of automated systems reduces the need for manual intervention in data entry and calculations, thereby lowering the chances of errors and ensuring greater consistency in financial records.
- **Real-time systems improve timeliness of information**
Digital platforms provide instant access to updated financial data, enabling managers to make faster and more informed business decisions.
- **Management support is essential for successful implementation**
The commitment of business owners and management toward adopting and investing in digital technologies is a key factor in ensuring effective implementation and utilization.



- **External factors drive digital adoption**

Elements such as competitive pressures, regulatory requirements (such as GST), and evolving market conditions motivate SMEs to adopt digital accounting practices.

VIII. RECOMMENDATIONS

For Small Businesses

- Implement cost-effective cloud-based accounting solutions
- Enhance employee skills through training and development programs
- Shift progressively from traditional methods to digital platforms

For Government

- Offer financial assistance and incentives to support digital adoption
- Conduct training and awareness programs for SMEs
- Improve and expand digital infrastructure

For Future Research

- Undertake empirical studies and surveys within Pune
- Investigate the impact of digital transformation across different industry sectors

IX. CONCLUSION

This study analyzed the effect of digital transformation on the quality of accounting information (AIQ) in small businesses operating in Pune. Drawing on an extensive review of existing studies along with contextual insights, it is clear that digital transformation has a significant influence on improving accounting practices and financial reporting within SMEs.

The findings reveal that the adoption of digital technologies—such as cloud-based accounting systems, automation tools, and GST-compliant software—substantially enhances the accuracy, reliability, timeliness, and transparency of financial information. By minimizing manual involvement, these technologies reduce the likelihood of errors and ensure greater consistency in financial data. Moreover, the availability of real-time information supports quicker and more effective decision-making, which is essential for the sustainability and growth of small enterprises.

At the same time, the study identifies several obstacles that limit the effective implementation of digital accounting systems in Pune. Key challenges include high initial investment costs, insufficient technical skills, resistance to adopting new technologies, and concerns related to data security. These issues indicate that, despite its advantages, digital transformation requires adequate support in the form of training, infrastructure development, and favorable policy measures. The study also emphasizes the importance of managerial involvement in the adoption process. Organizations with forward-thinking leadership and a readiness to invest in technological advancements are more likely to benefit from improved accounting information quality. In addition, external influences such as regulatory compliance requirements and competitive market conditions act as catalysts for digital adoption.

In summary, digital transformation should be viewed not just as a technological change but as a strategic imperative for small businesses seeking to enhance the quality of their accounting information. For SMEs in Pune, the adoption of digital accounting systems can lead to improved efficiency, greater transparency, and stronger competitive positioning. Achieving these outcomes, however, requires collaborative efforts from business owners, government authorities, and supporting institutions.

REFERENCES

1. Al-Okaily, M., Al-Okaily, A., Shiyab, F., & Masadah, W. (2023). Accounting information system effectiveness from an organizational perspective: The role of digital transformation. *Journal of Financial Reporting and Accounting*, 21(2), 245–263. <https://doi.org/10.1108/JFRA-03-2022-0105>



2. Alzeban, A. (2021). The impact of digital transformation on financial reporting quality in small and medium enterprises. *International Journal of Accounting Information Systems*, 42, 100512. <https://doi.org/10.1016/j.accinf.2021.100512>
3. Bharadwaj, A., El Sawy, O. A., Pavlou, P. A., & Venkatraman, N. (2013). Digital business strategy: Toward a next generation of insights. *MIS Quarterly*, 37(2), 471–482.
4. Grande, E. U., Estébanez, R. P., & Colomina, C. M. (2011). The impact of accounting information systems on performance measures. *International Journal of Digital Accounting Research*, 11, 25–43.
5. Moll, J., & Yigitbasioglu, O. (2019). The role of internet-related technologies in shaping accounting work. *British Accounting Review*, 51(6), 100833.
6. Nayak, B., Bhattacharyya, S. S., & Krishnamoorthy, B. (2022). Adoption of digital accounting systems in Indian SMEs. *Journal of Enterprise Information Management*, 35(4), 1105–1125.
7. Nguyen, T. H., & Nguyen, T. D. (2020). Digital transformation and firm performance. *Journal of Asian Finance, Economics and Business*, 7(10), 789–798.
8. Romney, M. B., & Steinbart, P. J. (2021). *Accounting information systems* (15th ed.). Pearson.
9. Soudani, S. N. (2012). The usefulness of accounting information systems. *International Journal of Economics and Finance*, 4(5), 136–145.
10. Susanto, A. (2018). Accounting information system quality and governance. *Journal of Engineering and Applied Sciences*, 13(11), 3841–3845.
11. Tornatzky, L., & Fleischer, M. (1990). *The processes of technological innovation*. Lexington Books.
12. Vial, G. (2019). Understanding digital transformation. *Journal of Strategic Information Systems*, 28(2), 118–144.

