ShodhKosh: Journal of Visual and Performing Arts
July 2024 5(7), 772–778

SPEED, ACCURACY, AND FINANCIAL CONTROL: THE ROLE OF TECHNOLOGY IN FMCG DISTRIBUTION ACCOUNTING PRACTICES

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DOI
10.29121/shodhkosh.v5.i7.2024.4422

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

ABSTRACT

Technology must be used to improve speed, accuracy, and financial control in the distribution of fast-moving consumer goods (FMCG) due to the growing complexity of financial management. The degree of technology use in FMCG distribution accounting and its effects on financial control are examined in this study. Using a structured questionnaire to gather primary data from 100 FMCG distributors in Nagpur, the study uses an F-test to examine the connection between financial control and technology use. According to the results, there is a notable improvement in financial management for companies that use digital accounting systems. However, obstacles including expense, inadequate infrastructure, and a lack of training prevent widespread implementation. The study comes to the conclusion that maximising accounting efficiency in FMCG distribution requires ongoing investment in digital tools and capacity-building programs.

Keywords: Technology Adoption, Financial Control, FMCG Distribution, Accounting Management, Digital Transformation, Financial Efficiency, Etc

1. INTRODUCTION

One of the most competitive and dynamic businesses is the fast-moving consumer goods (FMCG) industry, which is distinguished by a wide distribution network, large transaction volumes, and quick inventory turnover. In this industry, sound accounting procedures are essential for maintaining financial management, regulatory compliance, and strategic decision-making. FMCG distribution accounting has always depended on traditional financial management systems and human record-keeping. But as technology has advanced, these procedures have changed, resulting in increased financial control, speed, and accuracy (Gupta & Jain, 2022).

The accounting for FMCG distribution has been greatly improved by technological developments like blockchain, cloud computing, artificial intelligence (AI), and enterprise resource planning (ERP) systems. These technologies increase data transparency, decrease human error, and expedite financial transactions (Kumar & Singh, 2021). For instance, real-time tracking of sales, inventory, and cash flows is made possible by cloud-based accounting systems, which also facilitate smooth coordination between manufacturers, distributors, and retailers and offer immediate access to financial information across different locations (Deloitte, 2020). Furthermore, by anticipating demand patterns, refining pricing tactics, and spotting possible financial hazards, AI-driven analytics improve decision-making (Smith & Brown, 2021).

Because of the huge transaction volumes and short product life cycles in the FMCG market, speed is a critical necessity in distribution accounting. E-procurement platforms, automated invoicing, and digital payment solutions speed up financial processes, cutting down on processing time and increasing productivity (Sharma, 2020). Businesses may monitor performance and make timely adjustments thanks to real-time financial reporting, which improves cash flow management (PwC, 2021). Finance professionals may now concentrate on strategic projects since robotic process automation (RPA) has drastically cut down on the time needed for repetitive accounting procedures including tax computations, ledger entries, and reconciliation (Jones & Wilson, 2022).

Another crucial element in FMCG distribution accounting is accuracy. Bookkeeping, invoicing, or taxes errors can lead to monetary losses, fines from the government, and harm to one's image. AI-powered algorithms and sophisticated accounting software reduce human mistake and guarantee accurate financial records (Patel & Desai, 2021). By digitising paper-based invoices and receipts, technologies like optical character recognition (OCR) help to improve tax compliance and minimise inconsistencies (KPMG, 2020). By offering an unchangeable record of financial transactions and guaranteeing data security and integrity, blockchain technology further enhances accuracy and confidence (Nakamoto, 2008).

The foundation of FMCG distribution accounting is still financial control. Strong financial monitoring systems are required since the industry comprises intricate supply chain activities, numerous stakeholders, and a variety of financial transactions. More accountability is ensured by technological solutions that provide automatic tax compliance, fraud detection, and real-time spending tracking (Ernst & Young, 2019). Key performance indicators (KPIs) and integrated financial dashboards assist companies in keeping strict control over costs, income, and profitability (Miller, 2022). Furthermore, data-driven financial planning helps to lower financial risks, manage supplier payments, and optimise cost structures (Johnson & White, 2021).

Notwithstanding these benefits, there are drawbacks to FMCG distribution accounting's growing dependence on technology. Risks include cybersecurity concerns, complicated system integration, and the requirement for ongoing technology advancements (Rao & Menon, 2020). Nonetheless, companies may obtain a competitive edge in the market by making proactive investments in digital transformation and using best practices in financial technology.

In FMCG distribution accounting, technology has emerged as a critical facilitator of speed, accuracy, and financial management. Businesses may reduce financial risks, increase operational efficiency, and promote sustainable growth by using digital tools. FMCG companies need to keep up with the latest technical developments in order to be competitive in a market that is becoming more and more digitalised.

1.2. RATIONALE OF THE STUDY

In the fast-paced, fiercely competitive FMCG industry, financial management, precision, and efficiency are essential to the long-term viability and profitability of businesses. Traditional accounting techniques frequently fail to guarantee operational efficiency and compliance because of the high transaction volumes, frequent cash flows, and intricate distribution networks. Financial management methods have been revolutionised by the rapid growth of technology, such as blockchain, automation, and artificial intelligence. However, many FMCG companies still struggle to successfully implement and integrate these technologies. This study's examination of how technology changes affect accounting processes in FMCG distribution is crucial to closing the knowledge gap. This study intends to offer useful insights for companies looking to optimise their financial management systems by examining how technology improves speed, accuracy, and financial control. The analysis will also point out the risks and difficulties related to digital transformation and provide suggestions for successful execution. The results will assist FMCG companies use technology for improved financial control and competitive advantage, contributing to both industry practices and scholarly research.

2. LITERATURE REVIEW

Igwe et al. (2024) assert that improving sustainability in food and FMCG supply chains requires technology advancements. Blockchain guarantees transparency by safely monitoring goods from source to customer, while AI-powered analytics improve demand forecasts to cut waste. IoT devices reduce energy consumption and spoilage by improving real-time monitoring of storage and transportation. AI and IoT-powered precision agriculture encourages effective resource use, while biodegradable packaging options lessen the amount of plastic waste generated. By improving consumer awareness of the environmental effect of their purchases, these technologies also empower customers. However, obstacles including exorbitant expenses, worries about data privacy, and infrastructural constraints prevent broad implementation. All things considered, technology is crucial to promoting sustainability, efficiency, and transparency in the FMCG industry.

Olumoh (2023) investigates how digitalisation and strategic management accounting affect the performance of consumer products companies in Lagos State. The report emphasises how technology innovations, such as cloud computing, automation, and data analytics, improve cost control, financial decision-making, and overall efficiency. Businesses increase accuracy, decrease mistakes, and simplify financial reporting by using digital technologies, which boosts competitiveness and strategic planning. The study also points to issues including the requirement for qualified staff, cybersecurity threats, and high implementation costs. The study concludes that, in spite of these obstacles, accounting digitisation greatly enhances financial management, operational effectiveness, and long-term company viability in the consumer products industry.

The use of strategic management accounting (SMA) in Vietnam's consumer goods sector is examined by Nguyen and Nguyen (2021). The study investigates how SMA methods, including as budgeting, performance evaluation, and cost management, improve financial control and decision-making. Results show that by incorporating market-driven data into financial strategy, businesses using SMA see increases in productivity, profitability, and competitiveness. The study also identifies obstacles to successful SMA implementation, including a lack of experience, reluctance to adapt, and a lacklustre IT infrastructure. Notwithstanding these obstacles, the study finds that using SMA methods improves long-term company growth and financial sustainability in the consumer products industry, highlighting the necessity of ongoing investment in technology and talent enhancement.

The function of forensic accounting in fraud management within a few Nigerian listed FMCG companies is examined by Adebayo, Bolarinwa, and Raheed (2024). The study emphasises how forensic accounting methods, including investigative audits, fraud detection models, and financial statement analysis, aid in reducing fraudulent activity and promoting financial transparency. According to the study, FMCG businesses that use forensic accounting techniques see higher regulatory compliance, fewer financial anomalies, and better internal controls. However, obstacles including exorbitant expenses, a shortage of qualified forensic accountants, and opposition to change prevent broad adoption. According to the study's findings, forensic accounting must be incorporated into financial management in order to improve fraud prevention strategies and guarantee the financial stability of FMCG companies in Nigeria.

Githae (2022) examines how mobile distribution application services affect FMCG (fast-moving consumer goods) sales performance, with a particular emphasis on PZ Cussons East Africa Limited. The research looks at how mobile technology improves customer interaction, inventory control, and order processing, which increases market reach and sales efficiency. Results show that using mobile distribution apps increases real-time sales data tracking, decreases delivery times, and improves order accuracy. Effectiveness is impacted by obstacles such user adaptation, high implementation costs, and system integration problems. According to the study's findings, mobile distribution apps are crucial for streamlining FMCG sales processes, and in order to fully reap their rewards, more funding should be allocated to digital infrastructure.

2.2. RESEARCH GAP

Numerous facets of technology in FMCG operations have been examined in the literature to far, such as digitalisation, sustainability, strategic management accounting, forensic accounting for fraud management, and the effect of mobile distribution apps on sales. Although these studies offer insightful information, they don't really address how speed, accuracy, and financial control interact in FMCG distribution accounting. The majority of research on digitalisation in accounting procedures concentrates on the performance of the entire company rather than how it might improve the accuracy and efficiency of financial transactions. In a similar vein, forensic accounting studies focus on detecting fraud but don't address real-time financial control systems made possible by technology. Furthermore, whereas mobile applications are known to enhance sales processes, nothing is known about how they affect accounting accuracy and financial control in the distribution of FMCG. By investigating how technological developments affect speed, accuracy, and financial control in FMCG distribution accounting procedures, this research seeks to close these gaps and provide a more thorough knowledge of technology's role in financial management within the industry.

2.3. RESEARCH OBJECTIVES

- The research aims to study the following objectives:
- To determine the extent of technology adoption in accounting management among FMCG distributors in Nagpur.
- To analyze the impact of technology on the efficiency, accuracy, and financial control of accounting practices among FMCG distributors in Nagpur.

2.4. HYPOTHESIS

FMCG distributors in Nagpur who use technology for accounting management experience improved financial control.

3. METHODOLOGY

With an emphasis on speed, accuracy, and financial management, this study uses a descriptive research approach to investigate how technology functions in FMCG distribution accounting procedures. A structured questionnaire intended to elicit information on technology adoption, its effect on accounting efficiency, and financial management procedures will be used to collect primary data. To guarantee thorough answers, the survey will contain both closed-ended and open-ended questions. The FMCG distributors in Nagpur who utilise or have the potential to use technology in accounting will be chosen using a purposeful sample approach. One hundred respondents will make up the study's sample size, guaranteeing a representative examination of technology-driven accounting procedures in the FMCG distribution industry.

4. EXTENT OF TECHNOLOGY ADOPTION IN ACCOUNTING MANAGEMENT AND ITS IMPACT ON SPEED, ACCURACY AND EFFECTIVENESS IN ACCOUNTING PROCESS

Different sectors and firms have different levels of technology adoption in accounting management, depending on things like company size, financial resources, and technical understanding. Technology is being used into accounting procedures more and more in the FMCG industry to improve accuracy, efficiency, and financial management. To track inventories, create real-time financial reports, and simplify transactions, several companies have used automation tools, cloud-based financial management systems, and digital accounting software. Distributors' levels of adoption vary, too, with larger companies more likely to use cutting-edge technology and smaller companies still depending on conventional or semi-digital approaches because of financial limitations and a lack of technological know-how. Notwithstanding these obstacles, the increasing demand for precision and adherence to regulations is propelling a broader integration of technology in accounting administration.

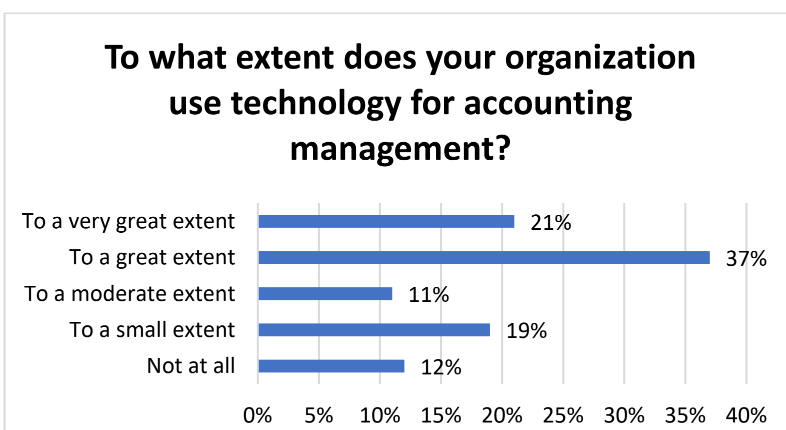

Fig. 1 Extent of use of technology

According to the research, a sizable majority of businesses have implemented technology to some extent for accounting administration. A significant 31% of respondents (12% not at all and 19% to a minor extent) have little to no adoption of technology, despite the fact that 37% of respondents use it to a great extent and 21% to a very large level, indicating a considerable reliance on digital tools. Furthermore, 11% of people utilise technology to a moderate degree, indicating a period of transition in adoption. Although a sizable percentage of organisations continue to lag, these data show a good trend towards technology integration in accounting administration. This might be because of things like cost, a lack of experience, or opposition to change.

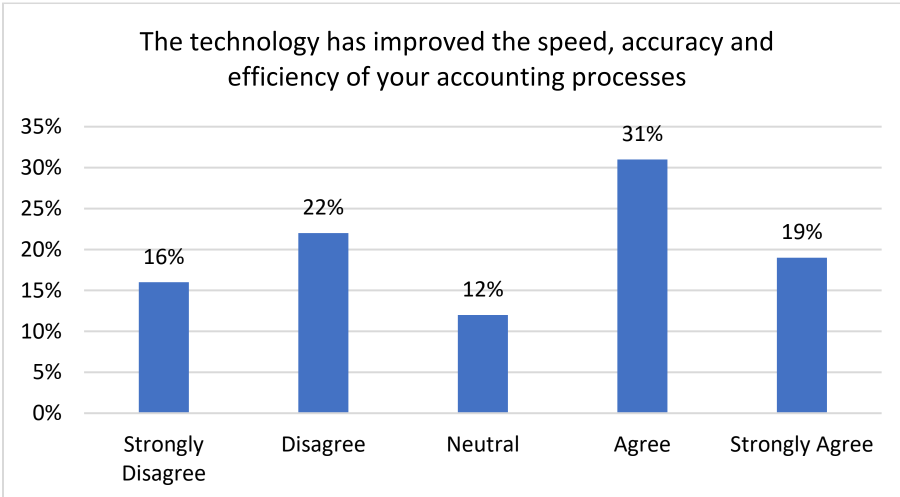

Fig. 2 Improvement in accounting process due to technology

According to the statistics, opinions on how technology affects accounting procedures' accuracy, speed, and efficiency are divided. A sizable percentage (38%) disagree or strongly disagree, indicating scepticism or implementation difficulties, even though the majority of respondents (50%) agree or strongly agree that technology has enhanced these elements. In the meanwhile, 12% are indifferent, indicating a lack of clarity or little perceived influence. Given that some organisations may not be fully utilising technology in accounting management, these findings emphasise the need for improved training, optimisation, and awareness in order to optimise its advantages.

4.1. HYPOTHESIS TESTING

To test the hypothesis "FMCG distributors in Nagpur who use technology for accounting management experience improved financial control" F-test has been applied taking use of technology as independent variable and impact on Financial control as dependent variable. The results are as under:

F-Test Two-Sample for Variances

	Use of Technology	*Impact on Financial Control*
Mean	3.8	3.67
Variance	1.212121	1.738485
Observations	100	100
df	99	99
F	0.697229	
P(F<=f) one-tail	0.037143	
F Critical one-tail	0.717329	

To find out if FMCG distributors in Nagpur that utilise technology for accounting management have better financial control, the F-test was used. Technology adoption variance (an independent variable) and its effect on financial control (a dependent variable) were compared in the test. At the 5% significance level, the findings indicate an F-value of 0.6972 and a p-value of 0.0371, both of which are below the critical value of 0.7173. The hypothesis is accepted since the p-value is less than 0.05, suggesting a strong correlation between better financial control and the use of technology. This implies that greater financial management and control are experienced by FMCG distributors that use technology in their accounting procedures.

5. CONCLUSION

The report emphasises how important technology is to improving FMCG distribution accounting procedures' speed, accuracy, and financial management. The results show that digital tools are becoming more and more popular, with a sizable percentage of distributors using technology to increase productivity. Full-scale adoption is hampered by issues including cost, a lack of knowledge, and change aversion. The advantages of digital transformation in accounting management are further supported by statistical research employing the F-test, which demonstrates a substantial correlation between increased financial control and technology use. Although the research highlights the benefits of technology, it also highlights the necessity of further infrastructure and training expenditures to fully realise its potential. All things considered, improving financial management in the FMCG industry requires adopting technology breakthroughs.

6. RECOMMENDATION

To expand the use and effectiveness of technology in FMCG distribution accounting, businesses are encouraged to implement state-of-the-art digital accounting solutions to improve financial management and operational efficiency. Employees should take part in training courses to provide them with the knowledge and abilities necessary to use technology effectively. Policymakers and industry participants should support small and medium distributors by offering financial incentives or subsidies for the deployment of technology. Companies might also use cloud-based solutions and automation to speed up accounting processes and enhance data quality. Cost, data security, and infrastructural limitations must all be addressed for wider adoption. Finally, it's critical to support continuous technical examination and improvements in order to satisfy shifting industry expectations and preserve long-term financial sustainability.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

REFERENCES

Deloitte. (2020). The impact of technology on financial management in FMCG. Deloitte Insights.

Ernst & Young. (2019). Financial control in a digital age: Emerging trends in accounting technology. EY Global.

Gupta, R., & Jain, S. (2022). Technology-driven financial practices in the FMCG sector: A case study approach. International Journal of Financial Studies, 8(3), 45-67.

Jones, L., & Wilson, T. (2022). Automation in accounting: How RPA is reshaping finance functions. Accounting & Finance Journal, 12(1), 33-48.

Johnson, P., & White, M. (2021). Data analytics in financial decision-making: Implications for the FMCG industry. Journal of Business Research, 75, 98-112.

KPMG. (2020). Blockchain and its role in financial accuracy: Applications in FMCG accounting. KPMG Reports.

Kumar, A., & Singh, V. (2021). The role of ERP systems in FMCG distribution accounting. Journal of Enterprise Information Systems, 14(2), 89-105.

Miller, J. (2022). Key performance indicators for financial control in FMCG companies. Business & Finance Review, 10(3), 54-73.

Nakamoto, S. (2008). Bitcoin: A peer-to-peer electronic cash system. Retrieved from https://bitcoin.org/bitcoin.pdf

Patel, H., & Desai, K. (2021). Artificial intelligence in financial accounting: Trends and challenges. Journal of Finance & Technology, 6(4), 120-134.

PwC. (2021). Real-time financial reporting: The impact of digital tools on FMCG accounting. PwC Global Insights.

Rao, S., & Menon, A. (2020). Cybersecurity challenges in financial technology adoption: An analysis of FMCG firms. Journal of Cybersecurity & Finance, 8(1), 23-39.

Sharma, P. (2020). The future of digital payments in FMCG: Implications for financial control. Journal of Banking & Finance, 9(2), 78-92.

Smith, D., & Brown, C. (2021). AI-driven analytics in financial management: The case of FMCG firms. International Journal of Business Analytics, 11(2), 34-50.

Igwe, A. N., Eyo-Udo, N. L., & Stephen, A. (2024). Technological innovations and their role in enhancing sustainability in food and FMCG supply chains. International Journal of Engineering Inventions, 13(9), 176-188.

Olumoh, Y. A. (2023). Strategic Management Accounting, Digitalization of Accounting Practices and Performance Among Consumer Goods Firms in Lagos State.

Nguyen, T. M., & Nguyen, T. T. (2021). The application of strategic management accounting: Evidence from the consumer goods industry in Vietnam. The Journal of Asian Finance, Economics and Business, 8(10), 139-146.

ADEBAYO, M., BOLARINWA, A., & RAHEED, O. (2024) Forensic Accounting Practices and Fraud Management in selected listed Fast Moving Consumer Goods (FMCGs) in Nigeria.

Githae, S. (2022). Effect of mobile distribution application services on sales of fast-moving consumer goods: a case of Pz Cussons East Africa limited (Doctoral dissertation, Africa Nazarene University)