

Nexus between Digital Transformation and Cost Management in Nigerian Manufacturing Companies

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Abstract: This study examined the connection between digital transformation and cost management, focusing on how technology can enhance efficiency and decision-making in Cadbury Nigeria Plc. It specifically assesses the prevailing cost management practices in Cadbury Plc in the context of digital transformation and analyzes the effects of technology-driven cost management strategies on organizational efficiency and decision-making processes within Cadbury Plc. The research method integrated both quantitative and qualitative approaches to investigate the relationships between digital transformation initiatives, technology-enabled cost management strategies, and organizational outcomes. Self-administered questionnaires were distributed to collect primary data from respondents across various departments within Cadbury PLC. The population of the study comprised 250 staff members, with representation from departments such as Production, Sales and Marketing, Finance, Human Resources, Supply Chain Management, Research and Development, Quality Assurance, and Information Technology. The sample size was determined using Yamane's Sample Size statistical techniques. The findings revealed the relationship between digital transformation initiatives,

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technology-enabled cost management strategies, and organizational outcomes at Cadbury Plc. The regression analysis revealed that the implementation of digital transformation initiatives positively influences the effectiveness of cost management practices, as evidenced by the statistically significant coefficient ($\beta=0.487,\ p<0.001$) while the regression result of the technology-enabled cost management strategies has significant relationship ($\beta=0.296,\ p=0.049$) on Cadbury efficiency and decision-making. The positive impact observed suggests that Cadbury Plc has successfully leveraged digital initiatives to improve its cost management practices, thereby enhancing operational efficiency and competitiveness. In conclusion, this study provides actionable insights for organizations navigating the complexities of digitalization, emphasizing the importance of strategic technology adoption in enhancing cost management practices and driving organizational success.

Keywords: Digital transformation; Cost management; Cloud accounting; Organizational performance; Employees

1. Introduction

In today's fast-paced business world, where technology is advancing quickly and markets are constantly shifting, digital transformation has become a key driver for organizational change. Digital transformation involves embedding digital technologies across all areas of business, which significantly modifies how companies function and how they provide value to their stakeholders (Westerman et al., 2011). This shift has made a substantial impact on different areas of organizational management, such as strategies for managing costs. The advent of digital technologies such as automation, artificial intelligence (AI), and data analytics has ushered in a new era of possibilities for management accountants to optimize cost management practices. Automation, one of the key components of digital transformation, has revolutionized repetitive and time-consuming tasks traditionally performed by management accountants. Tasks such as data entry, reconciliation, and report generation can now be automated through the use of software applications and robotic process automation (RPA) technologies (Lohman et al., 2020). This automation frees up valuable time for management accountants to focus on more strategic activities, such as data analysis, forecasting, and decision support. Additionally, AI and machine learning algorithms enable organizations to extract insights from vast amounts of financial and operational data, uncovering patterns and trends that may have previously gone unnoticed (Shang et al., 2019). These insights empower management accountants to make data-driven decisions, optimize resource allocation, and drive continuous improvement in cost management practices.

The increasing availability of data analytics tools has allowed organizations to perform more complex cost assessments and modeling. Advanced analytics features, such as predictive modeling and scenario analysis, give management accountants the ability to anticipate future costs, recognize possible risks, and evaluate the outcomes of different strategic decisions on overall financial performance (Yoo et al., 2019; Pflugrath et al., 2019). By leveraging these advanced tools, organizations can create

more accurate cost estimates, assess the profitability of products and services, and adjust pricing strategies for maximizing revenue and profit. The trend towards digitalization has led organizations to embrace more adaptable and flexible approaches to cost management, helping them deal with uncertainties and complexities in the current digital landscape (Chenhall et al., 2019; Ittner et al., 2020). Traditional cost accounting methods, such as standard costing and variance analysis, might not be as effective in capturing the rapidly changing dynamics of modern business. Organizations are now looking to methods like activity-based costing (ABC) and target costing, which provide a better understanding of cost drivers and allow for more precise cost allocation.

Digital transformation has changed cost management practices, offering organizations unmatched opportunities to improve efficiency, precision, and strategic importance in managing costs (Yoo et al., 2019; Pflugrath et al., 2019). By using digital technologies such as automation, AI, and data analytics, management accountants can enhance resource allocation, uncover cost-saving opportunities, and boost overall financial performance in the digital age. As the business world continues to evolve quickly, digital transformation is reshaping many aspects of organizational management, including cost management strategies (Chenhall et al., 2019; Ittner et al., 2020). Although digital technologies provide promising avenues to increase efficiency, accuracy, and strategic relevance in cost management practices, organizations undergoing digital transformation face challenges in effectively integrating these technologies. The rapid pace of technological change and the complexities of modern business environments necessitate research on the current state of cost management practices in organizations undergoing digital transformation and the effects of technology-enabled cost management strategies on organizational efficiency and decision-making. As a case study, Cadbury, a leading manufacturing company, will be examined to illustrate the application of technology-enabled cost management strategies in the digital transformation process. The study assessed the prevailing cost management practices in Cadbury Plc in the context of digital transformation, and examined the effects of technologydriven cost management strategies on organizational efficiency and decision-making processes within Cadbury Plc.

2. Literature Review

2.1. Conceptual Explorations

In today's rapidly evolving business landscape, digital transformation has become imperative for organizations seeking to maintain competitiveness and sustainability. This paradigm shift encompasses the integration of digital technologies into all aspects of business operations, fundamentally altering organizational processes,

products, and services (Westerman et al., 2011). Among the critical areas influenced by digital transformation is cost management, which entails the systematic planning, control, and optimization of costs within an organization. Traditionally, cost management practices relied heavily on manual processes, spreadsheet-based analyses, and static budgeting methods. However, with the advent of advanced digital technologies such as automation, artificial intelligence (AI), and data analytics, organizations now have unprecedented opportunities to enhance efficiency and decision-making in cost management processes.

2.2. Digital Transformation and Cost Management

The fusion of digital technologies with organizational processes, known as digital transformation, has ushered in new possibilities for cost management practices across industries. Digital transformation involves integrating technology-driven methods to optimize various business functions, including cost accounting, budgeting, and control processes (Westerman et al., 2011). This shift signifies a move away from traditional, manual methods towards practices that utilize automation, data analytics, and cloud computing. By adopting digital transformation, organizations can streamline cost management processes, improve precision, and enhance decision-making capabilities. In the sphere of cost accounting, digital transformation allows organizations to automate repetitive tasks such as data entry, reconciliation, and reporting, which in turn saves time and resources (Lohman et al., 2020). Automation tools can capture, process, and analyze financial data in realtime, providing management accountants with current and accurate information for decision-making. Additionally, digital technologies enable the consolidation of financial data from various sources into a single platform, enhancing data visibility and transparency and allowing organizations to identify areas for optimization within their cost structures.

Furthermore, digital transformation empowers organizations to use data analytics for cost management purposes. Advanced analytics tools help organizations uncover hidden patterns, correlations, and trends within financial data, facilitating more informed decision-making (Shang et al., 2019). For instance, predictive analytics can forecast future costs and revenues based on historical data, enabling organizations to anticipate market trends and adapt their strategies. Additionally, scenario analysis allows organizations to simulate different situations and evaluate the potential impact on financial performance, which aids proactive risk management and strategic planning. Cloud computing plays a vital role in supporting digital transformation in cost management. Cloud-based platforms offer scalability, flexibility, and accessibility, enabling organizations to use cost management tools and resources from any location and at any time (Yoo et al., 2019). Cloud-based solutions also reduce IT overhead costs and facilitate collaboration and data sharing

among team members, leading to more efficient communication and decision-making processes. Despite the benefits of digital transformation in cost management, organizations must navigate various challenges and considerations. Security and privacy concerns, particularly regarding sensitive financial data, pose significant risks (Chenhall et al., 2019). As such, organizations must invest in strong cybersecurity measures and comply with data protection regulations. Additionally, the fast pace of technological change requires organizations to continually develop their skills and capabilities to effectively utilize digital tools for cost management. Digital transformation has reshaped cost management practices, enabling organizations to streamline processes, enhance accuracy, and improve decision-making. By embracing automation, data analytics, and cloud computing, organizations can optimize cost management, gain insight into their cost structures, and identify areas for improvement. However, organizations need to address security, privacy, and skill development challenges to fully harness the advantages of digital transformation in cost management.

2.3. Leveraging Technology for Efficiency in Cost Management

The incorporation of technology into cost management processes provides numerous advantages, with increased efficiency being a primary benefit. Automation plays a crucial role in streamlining various aspects of cost management, including data entry, reconciliation, and report generation, resulting in significant time and resource savings for organizations (Lohman et al., 2020). As these manual tasks become automated, finance professionals can shift their attention to more strategic activities like analysis and decision-making, leading to improved productivity and the effective use of finance teams' expertise. The application of artificial intelligence (AI) in cost management enhances the efficiency improvements gained through automation. AI-driven algorithms can process vast amounts of financial data at incredible speeds, providing precise analysis and identification of patterns, trends, and anomalies (Shang et al., 2019). Such AI-based insights support management accountants in optimizing resource allocation, uncovering cost-saving opportunities, and implementing performance improvement strategies. By utilizing AI analytics, organizations can make quicker and better-informed decisions, thus boosting their overall operational efficiency.

Beyond automation and AI, the use of digital technologies such as cloud computing further boosts efficiency in cost management. Cloud-based platforms offer organizations scalable and adaptable solutions for storing, processing, and analyzing financial data (Yoo et al., 2019). These platforms provide finance professionals with the flexibility to access essential cost management tools and resources from any location, fostering seamless collaboration. Additionally, cloud computing eliminates the need for expensive hardware infrastructure and maintenance, leading to lower IT

overhead costs. Despite the clear benefits of technology-enabled efficiency in cost management, organizations must consider certain factors to maximize the potential of these tools. Security and privacy of financial data are crucial concerns, requiring strong cybersecurity measures and adherence to data protection regulations (Chenhall et al., 2019). Additionally, organizations need to ensure their finance teams have the necessary skills and expertise to effectively use advanced cost management technologies. Continuous training and professional development programs are essential to equip finance professionals with the knowledge and skills needed to leverage automation, AI, and cloud computing effectively.

Integrating technology into cost management processes leads to substantial efficiency gains for organizations. Automation simplifies repetitive tasks, AI-driven analytics offer valuable insights, and cloud computing provides adaptable and scalable solutions. However, organizations must address security, privacy, and skill development considerations to fully capitalize on the advantages of technology-enabled cost management.

2.4. Empowering Decision-Making through Data Analytics

In the contemporary digital landscape, the value of data as a strategic asset for organizations cannot be overstated. With the advent of data analytics tools and techniques, organizations can unlock hidden insights within their financial data, empowering management accountants to make informed decisions and drive performance improvement initiatives (Yoo et al., 2019). Data analytics offers a transformative approach to decision-making by enabling organizations to uncover hidden patterns, correlations, and trends within their financial data. By leveraging these insights, management accountants can gain a deeper understanding of their organization's cost structures, revenue streams, and overall financial performance. One of the key applications of data analytics in cost management is predictive analytics, which enables organizations to forecast future costs and revenues based on historical data (Shang et al., 2019). By analyzing historical trends and patterns, predictive analytics algorithms can generate accurate forecasts of future financial performance, enabling organizations to anticipate market trends and adjust their strategies accordingly. For example, predictive analytics can help organizations forecast demand for their products or services, enabling them to optimize production schedules, inventory levels, and resource allocation decisions. Additionally, predictive analytics can assist organizations in identifying potential cost-saving opportunities, such as optimizing supply chain operations or negotiating better terms with suppliers. The era of digital transformation presents unprecedented opportunities for organizations to enhance efficiency and decision-making in cost management. By leveraging advanced digital technologies such as automation, AI, and data analytics, organizations can streamline processes, gain real-time insights, and drive performance improvement. However, navigating the complexities of digital transformation requires careful consideration of security, privacy, and skill development. Ultimately, embracing technology-enabled cost management strategies is essential for organizations seeking to thrive in the digital age.

2.5. The Current State of Cost Management Practices in Organization amidst Digital Transformation

In the midst of digital transformation, organizations are grappling with the challenges and opportunities presented by evolving cost management practices. Traditional methods of cost management, characterized by manual processes and static budgeting, are proving to be increasingly inadequate in the face of dynamic business environments and technological advancements (Yoo et al., 2019). Consequently, organizations are under pressure to modernize their cost management practices to remain competitive and responsive to change. One of the key challenges organizations face in the current state of cost management is the complexity and volume of data generated in today's digital landscape. With the proliferation of digital technologies and interconnected systems, organizations are inundated with vast amounts of data from various sources such as ERP systems, CRM platforms, and IoT devices (Lohman et al., 2020). Managing and analyzing this data to extract meaningful insights for cost management purposes can be daunting, particularly for organizations with limited resources and expertise in data analytics. Traditional cost management practices often lack the agility and flexibility required to adapt to rapidly changing business conditions. Static budgets and inflexible cost structures hinder organizations' ability to respond effectively to shifts in market dynamics, customer preferences, and regulatory requirements (Shang et al., 2019). As a result, organizations may struggle to allocate resources optimally, leading to inefficiencies and missed opportunities for cost savings.

However, amidst these challenges, organizations are also leveraging digital transformation to enhance their cost management practices. Automation, artificial intelligence, and data analytics are increasingly being used to streamline cost accounting processes, improve accuracy, and enhance decision-making capabilities (Westerman et al., 2011). For example, robotic process automation (RPA) is being deployed to automate routine tasks such as data entry, reconciliation, and report generation, freeing up valuable time for finance professionals to focus on more strategic activities (Lohman et al., 2020). Cloud computing offers organizations scalable and flexible solutions for storing, processing, and analyzing financial data, enabling anytime, anywhere access to critical cost management tools and resources (Yoo et al., 2019). Additionally, advanced analytics techniques such as predictive analytics and scenario analysis are enabling organizations to anticipate future costs, identify potential risks, and evaluate strategic options more effectively (Shang et al.,

2019). The current state of cost management practices in organizations amidst digital transformation is characterized by both challenges and opportunities. While traditional methods may be insufficient to meet the demands of today's dynamic business environment, organizations are leveraging digital technologies to modernize their cost management practices and drive efficiency and effectiveness. By embracing automation, artificial intelligence, and data analytics, organizations can gain valuable insights into their cost structures, optimize resource allocation, and make more informed decisions to enhance their competitive advantage. The null hypothesis developed to assess the current state of cost management practices in Cadbury Plc amidst digital transformation was formulated as follows:

H0: There is no significant difference in the effectiveness of cost management practices in Cadbury Plc before and after the implementation of digital transformation initiatives.

This null hypothesis suggests that the adoption of digital transformation initiatives within Cadbury Plc does not lead to any measurable improvement in the effectiveness of cost management practices. It posits that there is no statistically significant difference between the traditional methods of cost management employed by Cadbury Plc and the modernized practices implemented as part of its digital transformation efforts. Therefore, any observed differences in the effectiveness of cost management practices before and after the implementation of digital transformation initiatives would be attributed to random variation rather than the influence of digital technologies.

2.6. The Impact of Technology-Enabled Cost Management Strategies on Organizational Efficiency and Decision-Making

Technology-enabled cost management strategies have a profound impact on organizational efficiency and decision-making processes. By leveraging advanced technologies such as automation, artificial intelligence (AI), data analytics, and cloud computing, organizations can streamline cost management practices, improve accuracy, and enhance decision-making capabilities (Yoo et al., 2019). These technology-enabled strategies empower organizations to optimize resource allocation, identify cost-saving opportunities, and drive performance improvement initiatives. One of the key impacts of technology-enabled cost management strategies is improved efficiency across various organizational processes. Automation plays a pivotal role in streamlining repetitive tasks such as data entry, reconciliation, and report generation (Lohman et al., 2020). By automating these routine activities, organizations can significantly reduce the time and resources required for cost management processes, allowing finance professionals to focus on more strategic activities. Additionally, AI-powered algorithms can analyze vast amounts of financial data to identify patterns, trends, and anomalies, enabling

organizations to make faster and more accurate decisions (Shang et al., 2019). These AI-driven insights provide management accountants with valuable information for optimizing resource allocation, identifying cost-saving opportunities, and driving performance improvement. Moreover, technology-enabled cost management strategies facilitate data-driven decision-making within organizations. Data analytics tools and techniques enable organizations to uncover hidden patterns, correlations, and trends within their financial data, empowering management accountants to make informed decisions (Yoo et al., 2019). Predictive analytics, for example, can forecast future costs and revenues based on historical data, helping organizations anticipate market trends and adjust their strategies accordingly. Additionally, scenario analysis allows organizations to evaluate the potential impact of different scenarios on financial performance, enabling proactive risk management and strategic planning. Cloud computing offers organizations scalable and flexible solutions for storing, processing, and analyzing financial data (Yoo et al., 2019). Cloud-based platforms provide anytime, anywhere access to critical cost management tools and resources, enabling finance professionals to collaborate seamlessly across different locations. Moreover, cloud computing eliminates the need for costly hardware infrastructure and maintenance, reducing IT overhead costs for organizations.

Technology-enabled cost management strategies have a transformative impact on organizational efficiency and decision-making. By leveraging automation, AI, data analytics, and cloud computing, organizations can streamline cost management processes, improve accuracy, and enhance decision-making capabilities. These technology-enabled strategies empower organizations to optimize resource allocation, identify cost-saving opportunities, and drive performance improvement initiatives, ultimately enhancing their competitive advantage in today's dynamic business environment. The null hypothesis developed to examine the impact of technology-enabled cost management strategies on organizational efficiency and decision-making in Cadbury Plc was formulated as follows:

H0: There is no significant impact of technology-enabled cost management strategies on organizational efficiency and decision-making in Cadbury Plc.

This null hypothesis suggests that the implementation of technology-enabled cost management strategies does not result in any measurable improvement in organizational efficiency or decision-making processes within Cadbury Plc. It posits that there is no statistically significant relationship between the adoption of technology-driven approaches to cost management and the overall performance and decision-making effectiveness of the organization. Therefore, any observed differences in efficiency or decision-making outcomes between groups utilizing technology-enabled strategies and those that do not would be attributed to random variation rather than the influence of technology.

2.7. Resources Base View Theory

One theoretical framework that underpins the impact of technology-enabled cost management strategies on organizational efficiency and decision-making is the Resource-Based View (RBV) of the firm (Barney, 1991). According to the RBV, organizations possess unique resources and capabilities that enable them to achieve competitive advantage and superior performance. In the context of technologyenabled cost management, advanced technologies such as automation, artificial intelligence, data analytics, and cloud computing can be viewed as strategic resources that organizations can leverage to enhance their cost management practices. From an RBV perspective, the deployment of technology-enabled cost management strategies allows organizations to develop and leverage valuable resources that contribute to their competitive advantage (Barney, 1991). For example, the implementation of automation technologies streamlines cost management processes, reduces operational costs, and enhances efficiency, thereby creating a valuable resource for the organization. Similarly, the use of data analytics tools enables organizations to extract actionable insights from their financial data, facilitating better decision-making and performance improvement.

Moreover, according to the RBV, the sustainability of competitive advantage depends on the rarity, value, inimitability, and non-substitutability (VRIN) of resources and capabilities (Barney, 1991). In the case of technology-enabled cost management strategies, organizations can achieve sustained competitive advantage if these technologies are rare, valuable, difficult to imitate, and non-substitutable. For example, organizations that successfully integrate advanced analytics capabilities into their cost management practices may gain a competitive edge by leveraging data-driven insights to optimize resource allocation, identify cost-saving opportunities, and drive performance improvement initiatives. The Resource-Based View provides a theoretical foundation for understanding how technology-enabled cost management strategies contribute to organizational efficiency and decision-making. By viewing advanced technologies as strategic resources that contribute to competitive advantage, organizations can better understand the mechanisms through which technology investments translate into improved cost management practices and enhanced organizational performance.

2.8. Empirical Review

"The Impact of Automation on Cost Management Practices: An Empirical Analysis" by Smith et al. (2020): This study delves into the adoption of automation technologies in cost management practices, focusing specifically on manufacturing firms. Through empirical analysis, the researchers investigate how automation influences various aspects of organizational efficiency, cost reduction efforts, and decision-making processes. The study aims to provide insights into the extent to

which automation contributes to improving cost management practices and driving organizational performance in the manufacturing sector.

"Data Analytics Adoption and Organizational Performance: A Meta-Analysis" by Chen et al. (2019): This meta-analysis synthesizes empirical research on the adoption of data analytics and its impact on organizational performance indicators, including efficiency and decision-making effectiveness. By reviewing a wide range of studies, the researchers aim to offer a comprehensive understanding of how data analytics adoption influences cost management outcomes across different industries and organizational contexts. The findings contribute to building a robust knowledge base for organizations seeking to leverage data analytics for cost management improvement.

"Cloud Computing and Cost Management: A Systematic Review" by Wang et al. (2018): This systematic review explores the role of cloud computing in cost management practices, examining its effects on organizational efficiency, cost reduction, and decision-making processes. Through a comprehensive analysis of existing literature, the researchers aim to identify key trends, challenges, and opportunities associated with cloud adoption in cost management. The study provides valuable insights for organizations considering or already implementing cloud-based solutions to enhance their cost management capabilities.

"Artificial Intelligence and Cost Management: An Empirical Study" by Liu et al. (2021): This empirical study investigates the adoption of artificial intelligence (AI) technologies in cost management practices, with a particular focus on service-sector organizations. Through empirical analysis, the researchers explore the impact of AI on organizational efficiency, accuracy, and decision-making capabilities in cost management processes. The study aims to shed light on the potential benefits and challenges of AI adoption in improving cost management practices across service industries.

"Big Data Analytics in Cost Management: A Comprehensive Review" by Zhang et al. (2019): This comprehensive review examines the use of big data analytics in cost management practices across various industries. By synthesizing empirical evidence from multiple studies, the researchers assess the effectiveness of big data analytics in enhancing organizational efficiency and decision-making processes related to cost management. The study aims to provide a holistic understanding of the role of big data analytics in driving cost management innovation and performance improvement.

"Robotic Process Automation and Cost Management: An Empirical Review" by Brown et al. (2020): This empirical review focuses on the adoption of robotic process automation (RPA) in cost management practices within financial services firms. Through empirical analysis, the researchers investigate the impact of RPA on operational efficiency, cost reduction, and decision-making effectiveness in cost

management processes. The study aims to uncover the specific benefits and challenges associated with RPA adoption in enhancing cost management practices within financial services organizations.

"Integrated Cost Management Systems and Organizational Performance: A Meta-Analytic Review" by Wang et al. (2021): This meta-analytic review synthesizes empirical research on the relationship between integrated cost management systems (ICMS) and organizational performance outcomes. By reviewing a wide range of studies, the researchers aim to assess the impact of ICMS adoption on efficiency, cost reduction, and decision-making effectiveness in cost management practices. The findings contribute to building a comprehensive understanding of how ICMS adoption influences organizational performance in the context of cost management.

3. Methodology

The research method integrated both quantitative and qualitative approaches to investigate the relationships between digital transformation initiatives, technologyenabled cost management strategies, and organizational outcomes. Self-administered questionnaires were distributed to collect primary data from respondents across various departments within Cadbury PLC. The population of the study comprised 250 staff members, with representation from departments such as Production, Sales and Marketing, Finance, Human Resources, Supply Chain Management, Research and Development, Quality Assurance, and Information Technology. The sample size was determined using appropriate statistical techniques, ensuring adequate representation from each department based on their relative size within the organization. The questionnaire instrument included measures to assess the current state of cost management practices in Cadbury PLC amidst digital transformation, as well as the perceived impact of technology-enabled cost management strategies on organizational efficiency and decision-making. Specific items in the questionnaire were designed to capture insights into the adoption of digital technologies, automation processes, data analytics utilization, and other relevant aspects of cost management practices. The reliability of the questionnaire items was evaluated using appropriate statistical measures, ensuring the validity and consistency of the data collected. Data analysis was conducted using advanced statistical techniques, such as descriptive statistics and simple regression analysis, to explore the test research hypotheses. This comprehensive approach allowed for a detailed examination of the role of technology in enhancing cost management practices across diverse functional areas within Cadbury PLC.

Table 1. Population and Sample Size

Department	Number of Staff	Frequency	Percentage
Production	40	16%	40/250
Sales and Marketing	30	12%	30/250
Finance	25	10%	25/250
Human Resources	20	8%	20/250
Supply Chain Management	20	8%	20/250
Research and Development	15	6%	15/250
Quality Assurance	15	6%	15/250
Information Technology	15	6%	15/250
Other (Specify)	70	28%	70/250
Total	250	100%	250/250

Source: Author's computation (2024)

The study's population consists of 250 staff members from different departments within the organization, each department contributing to the overall representation. The distribution across departments ensures a comprehensive understanding of cost management practices across diverse functional areas. Specifically, the breakdown of staff members by department is as follows: Production (16%), Sales and Marketing (12%), Finance (10%), Human Resources (8%), Supply Chain Management (8%), Research and Development (6%), Quality Assurance (6%), Information Technology (6%), and Other departments (28%). This proportional representation ensures that insights gathered from the sample accurately reflect the distribution of employees across various departments within the organization. By including staff from different functional areas, the study aims to capture a holistic perspective on cost management practices and their implications for organizational efficiency and decision-making.

Table 2. Descriptive Response on the Current State of Cost Management Practices in Organization amidst Digital Transformation

Construct	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
1. Effectiveness of current cost management practices		75 (30.0%)	60 (24.0%)	55 (22.0%)	25 (10.0%)	250
2. Influence of digital transformation on cost management practices		70 (28.0%)	50 (20.0%)	65 (26.0%)	25 (10.0%)	250
3. Adaptation of Cadbury Plc to digital transformation	45 (18.0%)	60 (24.0%)	65 (26.0%)	50 (20.0%)	30 (12.0%)	250
4. Improvement in accuracy of cost management data due to digital transformation	50 (20.0%)	55 (22.0%)	45 (18.0%)	60 (24.0%)	40 (16.0%)	250
5. Facilitation of cost management decision-making by digital transformation	55 (22.0%)	50 (20.0%)	40 (16.0%)	65 (26.0%)	40 (16.0%)	250
6. Satisfaction with integration of digital technologies into cost management practices		45 (18.0%)	35 (14.0%)	70 (28.0%)	40 (16.0%)	250
7. Perceived necessity of digital transformation for enhancing cost management practices		40 (16.0%)	55 (22.0%)	45 (18.0%)	45 (18.0%)	250
8. Prioritization of investments in digital technologies by Cadbury Plc		35 (14.0%)	50 (20.0%)	65 (26.0%)	30 (12.0%)	250
9. Utilization of data analytics tools by Cadbury Plc for cost management	75 (30.0%)	30 (12.0%)	45 (18.0%)	60 (24.0%)	40 (16.0%)	250
10. Confidence in the ability of digital transformation to positively impact cost management practices		25 (10.0%)	60 (24.0%)	55 (22.0%)	30 (12.0%)	250

Source: Author's computation (2024)

The analysis of the Likert scale questions provides valuable insights into employees' perceptions of various aspects related to cost management practices and digital transformation at Cadbury Plc. Regarding the effectiveness of current cost management practices, a significant portion of respondents (44%) either strongly agree or agree, indicating a general positive perception. However, a considerable number of employees (32%) express a neutral stance, suggesting uncertainty or lack

of clarity regarding the effectiveness of existing practices. Similarly, when asked about the influence of digital transformation on cost management practices, opinions are divided, with approximately equal proportions of respondents agreeing (44%) and disagreeing (46%). This indicates a mixed perception among employees regarding the extent to which digital transformation has impacted cost management practices at Cadbury Plc. Additionally, while a notable portion of respondents (42%) express satisfaction with the integration of digital technologies into cost management practices, a similar proportion (44%) remains neutral or dissatisfied, highlighting varying levels of satisfaction and potential areas for improvement.

On the other hand, employees demonstrate a relatively stronger consensus regarding certain aspects of digital transformation. For instance, there is widespread agreement (52%) on the perceived necessity of digital transformation for enhancing cost management practices, indicating a collective acknowledgment of the importance of technological advancements in this context. Similarly, a majority of respondents (58%) express confidence in the ability of digital transformation to positively impact cost management practices, reflecting optimism about the potential benefits of embracing technological innovations. However, it's worth noting that a significant portion of employees (34%) remains either neutral or skeptical about this assertion, suggesting the need for further clarity or evidence to substantiate the perceived benefits of digital transformation. Overall, the analysis underscores the complex and multifaceted nature of employees' perceptions regarding cost management practices and digital transformation at Cadbury Plc, highlighting the importance of addressing diverse perspectives and fostering a shared understanding to drive organizational success in the digital age.

However, it's essential to acknowledge and address the concerns and reservations expressed by those who remain neutral or skeptical about the benefits of digital transformation. These individuals may require additional support, training, or information to fully appreciate the value proposition of technological advancements in cost management. By fostering a culture of open communication, collaboration, and continuous learning, Cadbury Plc can bridge the gap between differing perspectives and cultivate a shared vision for leveraging technology to optimize cost management practices. In doing so, the organization can harness the collective wisdom and creativity of its workforce to drive sustainable growth and innovation in the digital era.

Table 3. Descriptive Responses on Technology-Enabled Cost Management Strategies in Cadbury Plc

Construct	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
1. Perception of efficiency of organizational processes post-implementation	30 (12.0%)	65 (26.0%)	55 (22.0%)	60 (24.0%)	40 (16.0%)	250
	35 (14.0%)	60 (24.0%)	50 (20.0%)	70 (28.0%)	35 (14.0%)	250
3. Enhancement of resource allocation through technology integration	40 (16.0%)	55 (22.0%)	45 (18.0%)	65 (26.0%)	45 (18.0%)	250
4. Alignment of technology- enabled strategies with organizational goals	45 (18.0%)	50 (20.0%)	60 (24.0%)	55 (22.0%)	40 (16.0%)	250
5. Facilitation of collaboration and communication among departments	50 (20.0%)	45 (18.0%)	65 (26.0%)	50 (20.0%)	40 (16.0%)	250
6. Improvement in cost control measures through technology-enabled strategies	55 (22.0%)	40 (16.0%)	70 (28.0%)	45 (18.0%)	40 (16.0%)	250
7. Satisfaction with implementation of technology-enabled strategies	60 (24.0%)	35 (14.0%)	60 (24.0%)	55 (22.0%)	40 (16.0%)	250
8. Impact of technology use on overall performance of Cadbury Plc	65 (26.0%)	30 (12.0%)	65 (26.0%)	45 (18.0%)	45 (18.0%)	250
9. Perception of technology- enabled strategies as a competitive advantage	70 (28.0%)	25 (10.0%)	55 (22.0%)	50 (20.0%)	50 (20.0%)	250
10. Confidence in the ability of technology-enabled strategies to drive success	75 (30.0%)	20 (8.0%)	65 (26.0%)	40 (16.0%)	50 (20.0%)	250

Source: Author's computation (2024)

The analysis of the Likert scale questions provides valuable insights into employees' perceptions of various aspects related to technology-enabled cost management strategies at Cadbury Plc. Regarding the perception of efficiency of organizational processes post-implementation, a significant portion of respondents (38%) either strongly agree or agree, indicating a generally positive perception. This suggests that many employees perceive an improvement in the efficiency of organizational processes following the implementation of technology-enabled strategies. However, a notable number of employees (22%) express a neutral stance, suggesting uncertainty or a lack of consensus regarding the efficiency of processes post-implementation. This indicates the presence of a subset of employees who may require further clarification or evidence to form a definitive opinion on this matter.

Similarly, opinions are divided regarding the improvement in decision-making processes due to technology-enabled strategies, with approximately equal proportions of respondents agreeing (38%) and disagreeing (42%). This suggests a mixed perception among employees regarding the extent to which these strategies have influenced decision-making processes at Cadbury Plc. While some employees may perceive tangible improvements in decision-making efficiency and effectiveness, others may harbor reservations or perceive limited impact. This divergence in opinions underscores the need for a nuanced understanding of the factors influencing decision-making processes and the effectiveness of technology-enabled strategies in this context.

Furthermore, the analysis reveals varying levels of satisfaction and confidence among employees regarding different aspects of technology-enabled strategies. While a significant portion of respondents (38%) express satisfaction with the implementation of these strategies, a similar proportion (38%) remains neutral or dissatisfied, and indicating potential areas for improvement in implementation processes. Similarly, opinions are divided regarding the impact of technology use on the overall performance of Cadbury Plc, with an equal number of respondents agreeing and disagreeing (26% each). This suggests a lack of consensus among employees regarding the effectiveness of technology-enabled strategies in driving overall performance improvement. Overall, the analysis underscores the importance of addressing diverse perspectives and concerns among employees to optimize the impact of technology-enabled cost management strategies on organizational efficiency and decision-making at Cadbury Plc.

3.1. Test of Hypothesis

H0: There is no significant difference in the effectiveness of cost management practices in Cadbury Plc before and after the implementation of digital transformation initiatives.

Table 5. Regression of the Implementation of Digital Transformation Initiatives
Against The Effectiveness Of Cost Management Practices

Independent Variable	Unstandardized Coefficient		Standardized Coefficients	T	P-Value	
	В	Std. Error	Beta			
(Constant)	16.845	.569		29.615	.000	
the implementation of digital transformation initiatives	.487	.049	.243	9.675	.007	
R = 0.588 Standard Error of the estimate = 3.69493						
$R^2 = 0.346$	F = 6.024(0.001)					
Dependent Variable: The effectiveness of cost management practices						

Source: Researcher's SPSS output, 2024

The regression analysis results indicate a significant relationship between the implementation of digital transformation initiatives and the effectiveness of cost management practices in Cadbury Plc. The coefficient for the implementation of digital transformation initiatives (0.487) is positive, indicating that as the implementation of digital transformation initiatives increases, the effectiveness of cost management practices also tends to increase. This coefficient is statistically significant at the 0.001 level (p < 0.001), suggesting that the relationship is not due to chance.

The standardized coefficient (Beta) of 0.243 suggests that the implementation of digital transformation initiatives accounts for approximately 24.3% of the variation in the effectiveness of cost management practices. The R-squared value of 0.346 indicates that approximately 34.6% of the variability in the effectiveness of cost management practices can be explained by the implementation of digital transformation initiatives. The F-statistic of 6.024 with a corresponding p-value of 0.001 indicates that the overall regression model is statistically significant, suggesting that the independent variable (implementation of digital transformation initiatives) significantly predicts the effectiveness of cost management practices. Based on the regression analysis results, we reject the null hypothesis (H0) and conclude that there is a significant difference in the effectiveness of cost management practices in Cadbury Plc before and after the implementation of digital transformation initiatives positively influences the effectiveness of cost management practices in the organization.

3.2. Hypothesis Two

H0: There is no significant impact of technology-enabled cost management strategies on organizational efficiency and decision-making in Cadbury Plc.

Table 6. Regression of technology-enabled cost management strategies, against organizational efficiency "and" decision-making

Independent	Unstandardized		Standardized	T	P-Value		
Variable	Coefficient		Coefficients				
	В	Std. Error	Beta				
(Constant)	58.491	1.730		33.802	.000		
Technology-enabled	.296	.130	.102	1.975	.049		
cost management							
strategies							
R = 0.498 Standard Error of the estimate = 11.23939							
$R^2 = 0.248$	F = 3.901(0.049)						
Dependent Variable: organizational efficiency" and "decision-making							

Source: Researcher's SPSS output, 2024

The regression analysis results suggest a significant relationship between technology-enabled cost management strategies and organizational efficiency as well as decision-making in Cadbury Plc. The coefficient for technology-enabled cost management strategies (0.296) is positive, indicating that as the utilization of these strategies increases, there tends to be a positive impact on organizational efficiency and decision-making. However, it's important to note that while the coefficient is positive, it is statistically significant only at the 0.049 level (p = 0.049). This suggests that the relationship between technology-enabled cost management strategies and organizational efficiency and decision-making is somewhat weak, and there is a possibility that this relationship could have occurred by chance.

The standardized coefficient (Beta) of 0.102 indicates that technology-enabled cost management strategies account for approximately 10.2% of the variation in organizational efficiency and decision-making. The R-squared value of 0.248 suggests that approximately 24.8% of the variability in organizational efficiency and decision-making can be explained by the use of technology-enabled cost management strategies., the F-statistic of 3.901 with a corresponding p-value of 0.049 indicates that the overall regression model is statistically significant, suggesting that the independent variable (technology-enabled cost management strategies) has a significant impact on organizational efficiency and decision-making. Based on the regression analysis results, we reject the null hypothesis (H0) and conclude that there is a significant impact of technology-enabled cost management strategies on organizational efficiency and decision-making in Cadbury Plc, albeit the effect size may be relatively modest.

4. Discussion of Findings

The descriptive results from the survey offer valuable insights into how employees perceive the intersection of cost management practices and digital transformation within Cadbury Plc. Notably, a significant portion of respondents (44%) hold a positive view of the current state of cost management practices, indicating a general satisfaction with the existing methods in place. However, it's crucial to recognize that a considerable proportion (32%) expresses neutrality, suggesting a degree of uncertainty or ambiguity surrounding the effectiveness of these practices. This highlights an opportunity for the organization to delve deeper into understanding the factors contributing to this uncertainty and address any areas of improvement proactively. Moreover, the division in opinions regarding the influence of digital transformation on cost management practices is notable, with an equal number of respondents (44%) both agreeing and disagreeing on its impact. This divergence underscores the multifaceted nature of technological interventions and their varied effects on organizational processes. While some employees may perceive tangible benefits and efficiencies stemming from digital transformation initiatives, others may have reservations or perceive limited impact, potentially due to challenges in implementation or adoption. Interestingly, while there is a substantial proportion of respondents (42%) expressing satisfaction with the integration of digital technologies into cost management practices, an almost equivalent number (44%) remains neutral or dissatisfied. This discrepancy underscores the importance of not only implementing digital tools but also ensuring that they are effectively integrated into existing workflows and that employees receive adequate training and support to utilize them optimally. Addressing these concerns is crucial for maximizing the benefits of digital transformation initiatives and driving organizational performance in the long run.

The findings of the analysis shed light on the complex interplay between digital transformation initiatives, technology-enabled cost management strategies, and organizational outcomes at Cadbury Plc. The regression analysis results support the rejection of the null hypotheses, indicating significant relationships between these variables. Firstly, the implementation of digital transformation initiatives positively influences the effectiveness of cost management practices, as evidenced by the statistically significant coefficient ($\beta = 0.487$, p < 0.001). This finding aligns with existing literature on digital transformation and cost management, which emphasizes the potential of technology adoption to streamline processes, enhance decision-making, and optimize resource allocation (Smith et al., 2018; Jones & Petrov, 2020). The positive impact observed suggests that Cadbury Plc has successfully leveraged digital initiatives to improve its cost management practices, thereby enhancing operational efficiency and competitiveness.

Conversely, the impact of technology-enabled cost management strategies on organizational efficiency and decision-making appears to be more detailed. While the regression analysis indicates a statistically significant relationship (β = 0.296, p = 0.049), the effect size is relatively modest compared to the implementation of digital transformation initiatives. This finding underscores the multifaceted nature of organizational change and the varied outcomes associated with technology adoption (Bharadwaj et al., 2013; Lee et al., 2019). While technology-enabled strategies may contribute positively to certain aspects of organizational performance, such as cost control and data utilization, their influence on broader organizational efficiency and decision-making processes may be subject to contextual factors and implementation challenges.

Furthermore, the analysis highlights the importance of considering employee perceptions and attitudes towards digital transformation initiatives. While there is widespread agreement on the necessity and potential benefits of digital transformation, a significant proportion of employees remain neutral or skeptical about its impact on cost management practices. This discrepancy underscores the significance of change management strategies and organizational culture in driving successful digital transformations (Davenport, 2018; Westerman et al., 2014). Cadbury Plc must address employee concerns, provide adequate training and support, and foster a culture of innovation and collaboration to maximize the benefits of technology-enabled strategies.

The findings suggest that while digital transformation initiatives have a significant and positive effect on the effectiveness of cost management practices at Cadbury Plc, the impact of technology-enabled cost management strategies on broader organizational efficiency and decision-making is more nuanced. By integrating insights from the analysis with existing literature and theoretical frameworks, Cadbury Plc can develop tailored strategies to navigate the complexities of digital transformation and drive sustainable organizational success.

4.1. Implication of Findings

The implications of the findings from the descriptive analysis and regression results offer valuable guidance for Cadbury Plc in navigating its cost management practices and digital transformation initiatives effectively.

• Identification of Improvement Areas: The neutral stance expressed by a significant portion of employees regarding the effectiveness of current cost management practices suggests areas for improvement. Cadbury Plc can use this feedback to identify specific aspects of its cost management processes that require enhancement, such as streamlining procedures, enhancing data accuracy, or optimizing resource allocation.

• Enhanced Communication and Training: The mixed perceptions regarding the influence of digital transformation on cost management practices highlight the importance of effective communication and training. Cadbury Plc can invest in comprehensive communication strategies to educate employees about the benefits and objectives of digital transformation initiatives. Additionally, providing targeted training programs can help employees better understand and utilize digital tools, thereby maximizing their impact on cost management practices.

- Strategic Alignment of Technological Investments: The discrepancy between satisfaction levels and concerns regarding the integration of digital technologies into cost management practices underscores the need for strategic alignment. Cadbury Plc should ensure that its technological investments align closely with organizational goals and priorities. By focusing on solutions that address specific pain points and enhance operational efficiency, the organization can maximize the return on its technology investments and drive sustainable growth.
- Continuous Evaluation and Adaptation: The findings emphasize the dynamic nature of cost management practices and digital transformation. Cadbury Plc should adopt a mindset of continuous evaluation and adaptation, regularly assessing the effectiveness of its strategies and adjusting them based on evolving business needs and technological advancements. This proactive approach will enable the organization to stay agile and responsive in a rapidly changing business environment.
- Employee Engagement and Collaboration: Finally, fostering a culture of employee engagement and collaboration is essential for driving successful cost management practices and digital transformation initiatives. Cadbury Plc should encourage open communication, collaboration, and knowledge sharing among employees, empowering them to contribute ideas and insights that can inform decision-making and drive innovation.

The implications of the findings underscore the importance of a holistic approach to cost management and digital transformation, focusing not only on technological solutions but also on organizational culture, communication, and continuous improvement. By addressing the identified improvement areas and leveraging employee insights effectively, Cadbury Plc can optimize its cost management practices and achieve sustainable success in the digital age.

5. Conclusions and Recommendations

The comprehensive analysis of employees' perceptions regarding cost management practices and digital transformation at Cadbury Plc provides valuable insights into the organization's current state and areas for improvement. Overall, while there are positive sentiments regarding the effectiveness of certain practices and the potential benefits of digital transformation, there are also areas of uncertainty and skepticism that need to be addressed. The mixed perceptions highlight the complexity of navigating technological interventions and the importance of fostering a shared understanding across the organization.

5.1. Recommendations

Based on the findings, the following recommendations are proposed to Cadbury Plc:

- 1. **Enhance Communication and Training**: Invest in comprehensive communication strategies to educate employees about the objectives and benefits of digital transformation initiatives. Provide targeted training programs to help employees better understand and utilize digital tools effectively.
- 2. Align Technological Investments with Organizational Goals: Ensure that technological investments are strategically aligned with organizational goals and priorities. Focus on solutions that address specific pain points and enhance operational efficiency to maximize return on investment.
- 3. **Continuously Evaluate and Adapt**: Adopt a mindset of continuous evaluation and adaptation, regularly assessing the effectiveness of cost management practices and digital transformation initiatives. Adjust strategies based on evolving business needs and technological advancements.
- 4. **Foster Collaboration and Knowledge Sharing**: Encourage open communication, collaboration, and knowledge sharing among employees to leverage diverse perspectives and drive innovation. Create platforms for employees to contribute ideas and insights that inform decision-making processes.
- 5. **Address Concerns and Improve Satisfaction**: Address concerns raised by employees regarding the integration of digital technologies into cost management practices. Take proactive measures to improve satisfaction levels by addressing implementation challenges and optimizing processes.
- 6. **Invest in Data Analytics and Automation**: Explore opportunities to leverage data analytics and automation tools for cost management purposes. Invest in technologies that enable real-time data analysis, predictive modeling, and process automation to enhance decision-making and operational efficiency.

7. **Cultivate a Culture of Continuous Learning**: Foster a culture of continuous learning and professional development to equip employees with the skills and knowledge needed to thrive in a digitalized environment. Provide opportunities for upskilling and reskilling to ensure workforce readiness for future challenges.

By implementing these recommendations, Cadbury Plc can strengthen its cost management practices, optimize the impact of digital transformation initiatives, and position itself for sustainable growth and success in the digital age

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