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Innovation Strategies in Human Capital Development and Organisational Performance: Evidence from Coca-Cola Manufacturing Company in Mbarara District, Uganda

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ABSTRACT

This study examined the effect of innovation strategies in human capital development on the performance of Coca-Cola Manufacturing Company in Mbarara District, Uganda. Despite numerous organisational reforms, the influence of innovation-driven human capital strategies on performance among multinational manufacturing firms in Uganda remains underexplored, creating a significant research gap in understanding how such strategies enhance productivity and sustainability. Anchored on the Diffusion of Innovation (DOI) theory, the study adopted a mixed-methods approach integrating correlational, descriptive, and case study designs to capture the multidimensional nature of the research problem. The target population comprised 235 employees from various departments at Century Bottling Company, Mbarara Branch, with a sample of 148 respondents determined using Slovin's formula. Data were collected through self-administered questionnaires and interviews, with quantitative data analysed using SPSS version 28 and qualitative data through thematic analysis. Descriptive and inferential statistics, particularly linear regression, were used to determine the effect of innovation strategies on organisational performance. The findings revealed a statistically significant positive relationship between innovation strategies and company performance ($B = 0.407$; $\beta = 0.234$; $t = 2.023$; $p = 0.045$), indicating that the adoption of innovative human capital development practices enhances productivity, efficiency, and competitiveness. The study concludes that innovation-oriented human capital strategies are crucial for improving organisational outcomes in dynamic market environments. The findings have policy implications for strengthening employee innovation capacity, designing adaptive training frameworks, and informing industrial policies that promote innovation-driven growth. The study contributes to the existing body of knowledge by providing empirical evidence on the role of innovation in human capital development within Uganda's manufacturing sector.

Keywords: *Innovation Strategies, Human Capital Development, Organizational Performance, Manufacturing, Company*.

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1.0 Introduction

Manufacturing industries play a vital role in driving economic growth, employment creation, and technological advancement across both developed and developing economies. Their performance is often viewed as a key indicator of industrial competitiveness and national productivity [1]. In an increasingly dynamic global environment, the performance of manufacturing firms depends largely on their ability to adapt and innovate in response to changing market demands, technological shifts, and competitive pressures [2]. Innovation strategies have therefore become essential in enhancing productivity, operational efficiency, and sustainable performance within the manufacturing sector [3]. Integrating innovation into human capital development enables organisations to harness employee creativity, improve skills, and promote continuous learning that supports strategic growth [4]. The effective implementation of innovation strategies in human capital development strengthens organisational capabilities, promotes adaptability, and ultimately improves the overall performance of manufacturing industries [5].

Innovation strategies in human capital development refer to deliberate approaches adopted by manufacturing firms to enhance employee skills, creativity, and knowledge through continuous learning, technological integration, and process improvement [6], [7]. These strategies aim to build a workforce capable of driving innovation and responding effectively to industrial challenges. Performance in the manufacturing sector denotes the extent to which firms achieve productivity, profitability, market competitiveness, and sustainability [8], [9]. The relationship between innovation strategies in human capital development and performance is strongly interlinked, as firms that invest in innovative training, employee empowerment, and knowledge management often experience improved production efficiency, product quality, and market responsiveness [10]. A well-developed human capital base equipped with innovative capabilities enables manufacturing companies to optimise resources, reduce operational costs, and achieve superior performance outcomes in a competitive business environment [11], [12].

Employee performance in the manufacturing industry continues to face persistent challenges across both advanced and developing economies, though the underlying causes vary by context [13], [14]. In advanced economies automation and digital transformation have redefined skill requirements, creating performance gaps due to limited adaptability among ageing workforces and insufficient reskilling initiatives [15], [16], [17]. Employees often struggle to align traditional production skills with emerging technologies like robotics and artificial intelligence, which affects productivity and innovation output. In developing countries, including Uganda, challenges stem from inadequate training systems, low wages, poor working conditions, and limited access to modern technologies [18], [19]. Manufacturing employees in such contexts face low motivation, high turnover rates, and limited opportunities for career growth, which weaken operational efficiency and competitiveness [20], [21]. Across both contexts, the inability to sustain continuous learning, integrate innovation into human capital development, and maintain favourable working environments remains a critical barrier to achieving optimal employee performance in the manufacturing sector.

Previous studies on manufacturing industry performance have extensively examined the role of innovation, technology adoption, and organisational management in improving productivity and competitiveness [22], [23], yet limited attention has been given to how innovation strategies in human capital development specifically influence performance outcomes in multinational manufacturing firms. Research in advanced economies such as Germany and Japan have largely focused on technological innovations and process efficiency [24], while studies in developing contexts, including Uganda, have emphasised infrastructural and financial constraints rather than the strategic role of human capital innovation [25]. This gap reflects a lack of empirical evidence linking innovation-driven human capital strategies to measurable performance indicators in manufacturing firms operating in emerging economies

Coca-Cola Beverages Uganda's Mbarara branch continues to experience major performance constraints despite the implementation of various business strategies. The Uganda Business Climate Index [26] reports that the company operates under challenging macroeconomic conditions characterised by unreliable electricity, heavy taxation, and persistent inflation, all of which hinder operational growth and profitability. In 2024, the Ugandan shilling depreciated by more than 8% against the US dollar, escalating the cost of imported production inputs and thereby constraining manufacturing efficiency and cost control [26].

Industry insights further reveal that Coca-Cola Beverages Uganda faces increasing raw material expenses, growing pressure to manage water resources sustainably, and stricter government regulations on packaging and waste management. These factors have collectively reduced profit margins and intensified operational costs. The escalating cost of doing business has forced the company to re-evaluate its production strategies and supply chain management approaches to maintain competitiveness within Uganda's beverage industry [27], [28].

The Mbarara branch's workforce also grapples with internal organisational challenges that compound the company's performance issues. A significant portion of employees are engaged in vulnerable employment, with a rise in workplace injuries contributing to lost working hours and reduced overall productivity [26].

The combination of economic, operational, and human resource difficulties has led to declining productivity levels, high employee turnover, reduced operational efficiency, and compressed profit margins. Despite the range of interventions and strategic efforts, limited attention has been given to examining how innovation, employee diversity, and human capital development strategies influence performance at Coca-Cola Mbarara. Current research on multinational enterprises operating in Uganda has not sufficiently explored the link between human capital development and organisational performance within regional contexts such as Mbarara [26] [29] [30]. This knowledge gap risks perpetuating declines in productivity and competitiveness if not addressed.

This study therefore sought to investigate the effects of innovation strategies on performance of Coca-Cola Beverages Uganda in Mbarara. The goal was to identify effective approaches for enhancing workforce productivity, improving operational efficiency, and promoting long-term organisational sustainability amidst the existing economic and structural challenges facing the company. The purpose of this study was to establish how innovative approaches in human capital developmentenhance organisational performance within the competitive manufacturing environment.

The study holds significant implications for both policy and theory in the manufacturing sector. From a policy perspective, the findings provide evidence-based guidance for government agencies, industrial regulators, and multinational corporations on the importance of investing in innovation-driven human capital development to enhance workforce capabilities and overall organisational performance. Policymakers can use these insights to design interventions, such as training programmes, incentives for skill development, and regulatory frameworks that support continuous innovation within the manufacturing sector, particularly in emerging economies like Uganda. From a theoretical standpoint, the study contributes to human capital and innovation management literature by empirically demonstrating the relationship between innovation strategies in human capital development and firm performance in a developing country context. It extends existing frameworks on organisational performance by integrating human capital innovation as a critical determinant, thereby offering a basis for future research on strategic human resource practices and innovation adoption in manufacturing industries.

The specific objectives of the study included:

i. To assess the level of investment in research and development (R&D) and technology to drive innovation.

ii. To evaluate the role of employee creativity in problem-solving and innovation.

iii. To examine the extent of employee participation in generating and sharing innovative ideas.

iv. To determine the impact of innovation strategies on enhancing organisational performance.

v. To identify key enablers that support the implementation of innovation strategies in human capital development.

vi. To identify barriers that hinder effective innovation and employee participation in the manufacturing sector.

vii. To propose actionable recommendations for improving innovation strategies and organisational performance in multinational manufacturing companies.

2.0 Theoretical framework

The study is anchored on the Diffusion of Innovation (DOI) theory by Rogers (2003) as shown in Figure 1. The theory posits that innovation spreads through specific channels over time among members of a social system [31]. The adoption of new ideas, practices, or technologies depends on factors such as relative advantage, compatibility, complexity, trialability, and observability. According to DOI, individuals or organisations adopt innovations at different rates, influenced by both internal and external factors, which ultimately affect the overall performance and competitiveness of the organization [32], [33]. In the context of the Coca-Cola branch in Mbarara, the DOI theory provides a framework for understanding how innovation strategies in human capital development, including employee training, empowerment, and encouragement of creative problem solving, are adopted and integrated by employees. The theory explains that the successful diffusion and adoption of innovative practices among staff enhance employee capabilities, foster engagement, and improve operational performance [34]. This demonstrates how innovation strategies in human capital development are directly linked to measurable improvements in productivity and competitive advantage within the manufacturing sector [35].

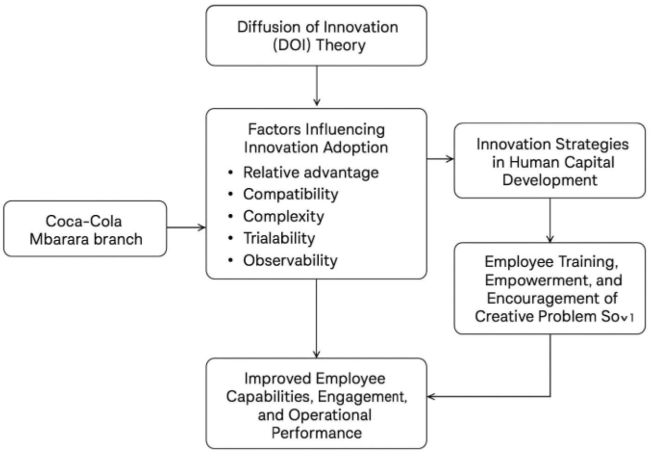

Figure 1: Theoretical Framework

Empirical review

The study reviewed previous studies on the relationship between innovation strategies and employee performance in MNCs as shown in Figure 2.

Influence of Innovation Strategies on Employee Performance IN MNCs

[36] investigated the impact of cultural diversity on innovation performance within alliances involving subsidiaries of multinational companies (MNCs). The study addressed the challenges posed by subsidiaries' dual cultural background, reflecting both their host and home countries, and examined how the effect of cultural diversity varies according to the nature of the alliance. Using data from 161 strategic alliances established by 31 MNC subsidiaries in the biotech industry between 1987 and 2010, the analysis revealed that subsidiaries generally exhibit lower innovation performance when partnering with culturally diverse firms. Nevertheless, cultural diversity exerts a positive influence in explorative alliances, where the exposure to novel cognitive schemes outweighs the difficulties associated with managing cultural differences. These findings highlight the contingent role of alliance content in shaping the relationship between cultural diversity and innovation outcomes in MNC subsidiaries.

[37] examined the mediating role of managerial ability in the relationship between knowledge diversity and innovation performance in reverse cross-border mergers and acquisitions (M&As) among Chinese manufacturing corporations. Grounded in the knowledge-based view and upper echelon theory, the study analysed data from Chinese listed manufacturing firms that engaged in reverse cross-border M&As between 2010 and 2018. The findings indicate that firms with greater knowledge diversity achieve higher post-acquisition innovation performance. Managerial ability fully mediates the relationship between knowledge heterogeneity and innovation performance, while it partially mediates the effect of technological diversity on innovation outcomes. The study provides insights into the integration processes of reverse cross-border M&As and clarifies how knowledge diversity and managerial capabilities drive innovation in multinational corporations from emerging economies.

[38] examined the direct effects of technological sophistication (TS), international entrepreneurial orientation (IEO), and a culture of innovation (OCI) on the performance of multinational corporations (MNCs) operating in emerging African markets, while exploring the moderating role of open innovation (OI) in these relationships. The study aimed to understand how collaborative innovation strategies influence corporate success in rapidly evolving economies. Data were collected from 352 respondents through structured questionnaires and analysed using Structural Equation Modelling (SEM), with preliminary content validity checks, confirmatory factor analysis, and pilot testing conducted to ensure robustness. The findings indicate that TS, IEO, and OCI significantly enhance organizational performance, and OI strengthens these effects. MNCs with a strong international entrepreneurial orientation are particularly able to influence market policies, highlighting the role of dynamic capabilities in emerging markets. The study provides actionable insights for MNCs to improve performance by integrating advanced technologies, fostering a culture of innovation, and leveraging international entrepreneurial orientation within African markets.

[39] investigated the impact of cross-border R&D sourcing on innovation quality within multinational corporations (MNCs) from a business model innovation (BMI) perspective, emphasising that innovation quality is as crucial as innovation performance. The study focused on China's high-tech MNCs and constructed a research framework incorporating R&D intensity, R&D diversity, and innovation quality, while examining absorptive capacity and institutional distance as moderating variables. The findings reveal that R&D intensity exhibits a significant inverted U-shaped relationship with innovation quality, whereas R&D diversity has a significant negative linear effect. Additionally, both absorptive capacity and institutional distance moderate these relationships, highlighting their critical role in shaping the innovation outcomes of cross-border BMI initiatives. The study contributes to understanding how MNCs can achieve sustainable business model innovation through strategic R&D sourcing and the effective management of internal and external capabilities.

[40] explored the improvement of innovation quality in multinational corporations (MNCs) from a cross-border knowledge management perspective, aiming to map the relationships among knowledge creation, knowledge application, and innovation quality to enhance business model success. The study used panel data from Chinese A-share listed MNCs with operations in the Asia-Pacific region from 2014 to 2018, testing the mediating role of knowledge application and the moderating effect of cultural distance. The findings indicate that both knowledge creation and knowledge application exhibit significant inverted U-shaped relationships with

innovation quality, with knowledge creation positively influencing knowledge application. Knowledge application partially mediates the effect of knowledge creation on innovation quality, while cultural distance moderates these relationships, with the direction of moderation depending on the levels of knowledge creation and application. The study highlights the critical role of knowledge management and cultural considerations in enhancing MNC innovation quality.

[41] investigated the impact of sustainable business environment distance on the innovation performance of emerging market multinational enterprises (EMNEs), focusing on how variations in business environments influence innovation outcomes. The study analysed a panel dataset of Chinese MNEs listed on the Shenzhen and Shanghai stock exchanges from 2005 to 2018, examining the mediating role of R&D internationalization and the moderating influence of migrant networks. The findings indicate that sustainable business environment distance positively affects innovation performance, with R&D internationalization mediating this relationship. Migrant networks, particularly highly skilled migrants, strengthen the positive effect of business environment distance on the parent company's R&D internationalization. The study provides novel insights into how business environment differences and international human capital shape innovation performance and outward foreign direct investment in EMNEs.

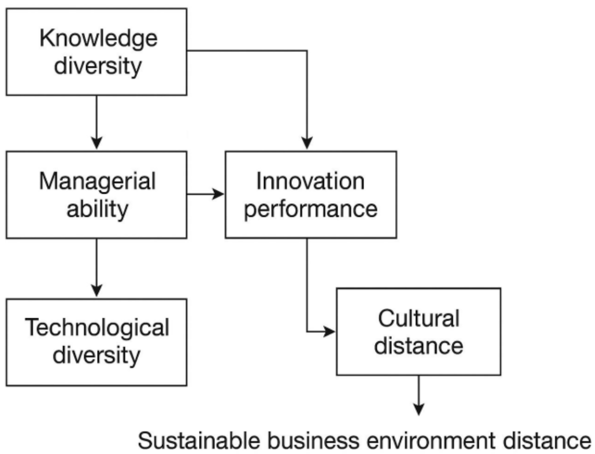

Figure 2: Conceptual Framework

Research Gaps

In reference to previous studies, this study filled the gaps identified in the work of [36], [37], [38], [39], [40], [41]. These studies largely focused on macro-level innovation drivers, including cultural diversity, managerial ability, technological sophistication, and sustainable business environments in multinational corporations operating in China and other emerging economies in Asia and Africa. They concentrated on structural and strategic factors such as research and development sourcing, absorptive capacity, and cross-border knowledge management, but they neglected employee-level and organisational behavioural aspects of innovation, such as the encouragement of creativity, internal idea-generation systems, and innovation culture. Furthermore, these studies provided limited empirical evidence from African contexts, particularly East Africa, and relied predominantly on secondary quantitative data without incorporating qualitative insights. The present study addressed these gaps by examining employee-driven innovation practices, organisational culture, and technological investment within Ugandan subsidiaries of multinational corporations, employing a mixed-method approach to capture both quantitative measures and qualitative perspectives on innovation processes, challenges, and their impact on firm performance.

3.0 Materials and Methods

Research design

This study used a combination of correlational, descriptive, and case study designs to effectively capture different dimensions of the research problem. The correlational design was employed to identify and measure the strength and direction of relationships between innovation strategies and organisational performance, providing statistical evidence of associations. The descriptive design allowed the study to systematically summarise and present the current state of innovation practices, employee engagement, and performance outcomes, offering a clear picture of existing patterns and trends within the company [42]. The case study design provided an in-depth exploration of contextual and organisational factors specific to Coca-Cola Manufacturing Company in Mbarara District, enabling the capture of qualitative insights from employees and managers about the practical implementation, challenges, and effects of human capital-focused innovation strategies. Combining these designs justified a mixed-methods approach, as it integrated quantitative evidence of relationships with qualitative understanding of organisational realities, producing a comprehensive and contextually grounded analysis of how innovation strategies in human capital development influence firm performance.

Target population

The target population for this study comprised 235 employees of Century Bottling Company, Mbarara Branch, representing a wide range of functional roles and departments, including management and administration, finance and accounts, sales and marketing, records and stores, quality assurance, processing and production, engineering, transport and logistics, health and safety, and support staff as shown in Table 1. This diverse population ensured that the study captured comprehensive perspectives on the implementation and effectiveness of human capital development strategies and their influence on organisational performance. Participants were purposively selected based on their knowledge, experience, and active involvement in the company's day-to-day operations, making them well-positioned to provide informed and credible responses [43].

The inclusion criteria focused on employees who had sufficient exposure to the company's human capital development initiatives, specifically those in managerial, operational, and support roles across the key departments. This ensured that participants could provide relevant and contextually grounded insights into the impact of human capital strategies on performance [44].

The exclusion criteria removed employees with less than six months of service, interns, staff on probation, newly recruited employees, those on leave, and individuals not directly involved in daily operations. These exclusions were justified because such employees were likely to have limited familiarity with the company's strategies, insufficient understanding of performance metrics, and a higher risk of providing biased or uninformed responses. This approach ensured that the data collected were reliable, valid, and reflective of employees with adequate experience and knowledge of organisational practices [45].

Table 1: Target population

Department	Population
Management & administration	22
Finance and Accounts	15
Sales & Marketing	27
Records and stores	15
Quality Assurance	15
Processing & Production	32
Engineering	14
Transport and logistics	25
Healthy and safety	05
Support staff	75
Total	**235**

Source: *Coca-Cola Beverages Uganda Limited (CCBU) Website (2025)*

Sample Size

A sample size targeted 148 respondents who were to be selected from the target population of 235 employees at Coca-Cola Manufacturing Company, Mbarara Branch. The sample was determined using Slovin's formula to ensure an appropriate representation of the population while maintaining a manageable number of participants for data collection. This sampling approach provided a statistically justified basis for selecting respondents, thereby enhancing the reliability and generalizability of the study findings [46].

$$n = \frac{N}{1+Ne}$$

Where:
n = sample size
N = Target population
e = level of significance 0.05
This implies

$$\frac{235}{1+235(0.05)^2} = 148$$

Table 2: Sample Size

Department	Target Population	Sample Size
Management & Administration	22	14
Finance and Accounting	15	9
Sales and Marketing	32	20
Records and stores	15	9
Quality Assurance	15	9
Processing & Production	32	20
Engineering	14	9
Transport and logistics	25	17
Health and safety	05	3
Support staff	60	38
TOTAL	**235**	**148**

Source: *Researcher (2025)*

The study employed a multistage sampling approach to ensure a systematic and comprehensive selection of participants from the diverse workforce of Coca Cola Company, Mbarara Branch [47], [48]. In the first stage, stratified random sampling was used to divide the population into distinct departments, such as management, production, finance, and logistics. This ensured that all key functional areas were adequately represented, maintaining proportionality across departments [49]. Proportionate sampling was then applied to select participants from each department according to its size, ensuring that larger departments contributed more respondents while smaller departments were still represented, thereby preserving the representativeness of the sample [50].
Within these departmental strata, simple random sampling was employed to select employees, giving each individual an equal chance of being chosen. This method reduced selection bias and enhanced the generalizability of the quantitative findings regarding human capital development strategies and performance outcomes.
For in-depth qualitative insights, purposive sampling was used to select department heads and senior executives. This was justified because these individuals possess specialised knowledge, experience, and a comprehensive understanding of human capital practices and organisational performance. Their perspectives provided detailed, contextually rich information on strategic initiatives, challenges, and the effectiveness of innovation in human capital development, complementing the quantitative data and enhancing the overall validity of the study [52].
Combining these sampling techniques allowed the study to balance representativeness, fairness, and depth, ensuring both reliable quantitative results and rich qualitative insights.

Data Collection Tools

The study employed a self-administered questionnaire with a 5-point Likert scale and closed-ended questions to collect quantitative data from 114 staff [53]. This approach was justified because non-management employees are directly involved in operational activities and possess practical knowledge of how Innovation strategies are implemented and how they affect organisational performance. The structured format of the questionnaire allowed for efficient data collection and systematic analysis, while the self-administered nature encouraged respondents to provide honest and unbiased answers, reducing the risk of interviewer influence and social desirability bias. The use of a Likert scale enabled the measurement of attitudes, perceptions, and levels of agreement in a consistent and comparable manner.
To complement the quantitative data, the study employed unstructured interviews. A total of 34 interviews were carried out with purposively selected respondents comprising 14 Management and Administration staff and 20 staffs from Sales and Marketing departments. This method was justified because these individuals have strategic oversight and a comprehensive understanding of Innovation. Unstructured interviews allowed for flexibility in exploring complex issues, capturing detailed insights into the design, implementation, challenges, and outcomes of Innovation that cannot be fully measured through structured questionnaires. Combining both methods provided a mixed-methods approach, ensuring a holistic understanding of how human capital strategies influence organisational performance by integrating measurable employee perspectives with in-depth managerial insights [54].

Piloting

The pilot study was conducted to evaluate the effectiveness of the questionnaire in capturing meaningful and relevant data aligned with the study's research questions [55]. Conducting the pilot over a two-week period, with one week for data collection and another for analysis and refinement, allowed the researcher to systematically assess the clarity, comprehensibility, and relevance of the questions. A sample of 15 respondents, representing 10% of the total study sample, was purposively selected to ensure that participants had sufficient knowledge and experience to provide informed feedback. These respondents were excluded from the main study to prevent duplication and maintain the integrity of the primary data.

Data Analysis

The study employed a mixed-methods approach, combining quantitative and qualitative data analysis to provide a

comprehensive understanding of the relationship between innovation strategies and organizational performance. Quantitative data were processed using SPSS software version 28. Descriptive statistics, including means and standard deviations, summarised the central tendency and variability of the data. Inferential statistics, specifically linear regression, was used to explore the relationship between innovation strategies and organizational performance. Simple linear regression further assessed how well innovation strategies predicted organizational performance. Hypotheses were tested at a 5% significance level, with results presented in APA-formatted tables [56].
Qualitative data from interviews and open-ended survey responses were analysed using thematic analysis. This method identified recurring patterns and themes, providing contextual insights that enriched and triangulated the quantitative results, ensuring a deeper understanding of how innovation strategies influence organizational performance [57].

Ethical considerations
The study observed ethical considerations to ensure the protection, rights, and dignity of all participants. Informed consent was obtained from participants, ensuring they voluntarily agreed to take part with full awareness of the study's purpose and procedures. Confidentiality and anonymity were maintained by securely handling data and omitting identifying information. Participants were also assured of their right to withdraw at any time without any negative consequences. Additionally, the study avoided any form of harm or coercion, adhering to ethical research standards and promoting integrity and trustworthiness in the research process [58], [59], [60].

4.0 Findings

4.1 Response Rate
A total of 114 questionnaires were distributed to respondents, of which 102 were successfully completed and returned, while 12 were not returned. This corresponds to a response rate of 89.47%, which is considered highly satisfactory for survey-based research.

4.2 Descriptive Statistics of Innovation Strategies and Performance of Coca Cola Multinational Company
The study determined the effect of innovation on performance of coca cola multinational company in Mbarara district, Uganda, using measures of central tendency as shown in Table 3.

Table 3: Results of Innovation Strategies

Statements	N	Mean	SD
Our company invests significantly in Research and Development to drive innovation	102	4.13	.806
Creativity significantly contributes to problem solving within the company	102	3.90	.837
Employees are encouraged to contribute innovative ideas	102	3.81	.874
My company invests adequately in technology	102	3.83	1.015
Innovations positively impact in technology to foster creativity and innovation	102	3.74	.903
Our company encourages employees to generate and share new ideas for products, services, or processes	102	3.77	.911
Overall	**102**	**3.86**	**0.891**

Source: *Field data (2025)*

The study examined the impact of innovation strategies on the performance of coca cola multinational company in Mbarara District, Uganda, using specific indicators to capture respondents' perceptions. Respondents strongly agreed that "Our company invests significantly in Research and Development to drive innovation," which received the highest mean score of 4.13 (SD = 0.806). This indicates a shared perception that R&D is a key driver of innovative practices within the organisation. Similarly, the statement "creativity significantly contributes to problem solving within the company" recorded a mean of 3.90 (SD = 0.837), reflecting moderate consensus on the importance of creativity in addressing organisational challenges.
The study further found that employees are encouraged to contribute innovative ideas, with a mean score of 3.81 (SD = 0.874), demonstrating moderate agreement that staff engagement in idea generation is valued and essential for maintaining competitive advantage. The perception that "my company invests adequately in technology" scored a mean of 3.83 (SD = 1.015), indicating general recognition of technological investments in supporting innovation, albeit with some variability in responses.
Additional indicators, including "innovations positively impact technology to foster creativity and innovation" (M = 3.74, SD = 0.903) and "our company encourages employees to generate and share new ideas for products, services, or processes" (M = 3.77, SD = 0.911), also demonstrated moderate agreement among respondents. The relatively consistent mean scores, combined with standard deviations below 1.02, suggest a moderate level of consensus regarding innovation practices across the organisation.
The overall mean score of 3.86 indicates that respondents moderately agreed that innovation practices are actively implemented and contribute positively to organizational performance at Coca-Cola Mbarara. Since the mean is close to 4 on a 5-point Likert scale, it suggests a generally positive perception of innovation initiatives, with respondents recognising the importance of research and development, creativity, technological investment, and employee involvement in driving innovation.
The overall standard deviation of 0.891, being less than 1, shows that the responses are fairly consistent, with limited variation among respondents' perceptions. This implies that most employees share a similar view on the role of innovation in enhancing performance, suggesting alignment in understanding and implementation of innovative strategies within the company.
The implications of these findings are that Coca-Cola Mbarara benefits from structured innovation practices, where R&D, technology investment, and employee-driven ideas collectively support problem solving, operational efficiency, and competitive advantage. The moderate agreement indicates room for improvement, particularly in areas such as encouraging broader employee participation and enhancing technological integration, which could further strengthen the company's innovative capacity and overall performance.

4.3 Descriptive statistics of Performance of Coca Cola Multinational Company in Mbarara District, Uganda.
This study sought to determine the perception of respondents on the Performance of coca cola multinational company in Mbarara District, Uganda, using measure of central tendency as shown in Table 4.

Table 4: Results on Performance of Coca Cola Multinational Company

	N	Mean	SD
Our company has streamlined process and systems that enable efficient operations across different locations.	102	3.96	.833
Our company's strong brand reputation and image contribute significantly to our competitive advantage.	102	4.04	.783
Our company's ability to adapt quickly to changing market conditions helps us maintain a competitive advantage.	102	3.85	.851
My company consistently achieves its financial targets	102	3.83	.766
My organisation operates with high levels of efficiency, ensuring timely production.	102	3.91	.774
My organisation has significant growing market share in the industry.	102	3.87	.728
Overall	**102**	**3.91**	**0.79**

Source: *Field Data, 2025*

The study assessed respondents' perceptions of the performance of multinational companies in Mbarara District, Uganda, using six key indicators measured on a 5-point Likert scale, as shown in Table 9. The highest mean score (4.04, SD = 0.783) was observed for the statement: "Our company's strong brand reputation and image contribute significantly to our competitive advantage," indicating that brand reputation and image are perceived as the strongest contributors to organizational performance. Closely following were "Our company has streamlined process and systems that enable efficient operations across different locations" (Mean = 3.96, SD = 0.833) and "My organisation operates with high levels of efficiency, ensuring timely production" (Mean = 3.91, SD = 0.774), suggesting that operational efficiency and process streamlining are also important performance drivers.

The lower, yet still positive, means were recorded for "My company consistently achieves its financial targets" (3.83, SD = 0.766) and "Our company's ability to adapt quickly to changing market conditions helps us maintain a competitive advantage" (3.85, SD = 0.851), implying that financial target achievement and adaptability are perceived as slightly less robust areas of performance. Standard deviations ranged from 0.728 to 0.851, with the lowest SD for "My organisation has significant growing market share in the industry" (0.728), indicating more agreement among respondents on this indicator, and the highest SD for adaptability (0.851), suggesting some divergence in perception regarding the company's responsiveness to market changes.

The overall mean of 3.91, coupled with an overall SD of 0.79, indicates that respondents generally agree that multinational companies in Mbarara perform well, with moderately consistent perceptions across the different indicators. These findings suggest that brand image, operational efficiency, and streamlined processes are central to perceived performance, while financial target achievement and adaptability, though positive, may require further attention.

The implications of these results are that Coca-Cola and other multinational companies in Mbarara benefit from strong internal systems, efficient operations, and a reputable brand, which collectively support competitive advantage and overall performance. The moderate dispersion in responses indicates some variability in perceptions, particularly regarding adaptability, highlighting areas where management could focus on improving responsiveness to dynamic market conditions. These findings align with prior studies in Uganda, which identify brand strength, operational efficiency, and internal governance as key determinants of firm performance.

4.4 Qualitative Data Analysis

A total of 34 interviews were carried out with purposively selected respondents comprising management and administration staff (14) and sales and marketing personnel (20).

The study explored the relationship between innovation strategies and the performance of Coca Cola multinational company in Mbarara District, with insights drawn from key informants (KI1 and KI2).

Promotion of Innovation Culture: Both KI1 and KI2 noted that the company encourages an innovative culture. KI1 stated, "We are encouraged to bring new ideas without fear of being judged," highlighting an environment supportive of idea generation. KI2 echoed this perspective but added a caveat, noting that "some employees remain hesitant to share ideas despite the open culture," suggesting that cultural encouragement alone may not fully overcome individual reluctance.

Investment in R&D: The informants emphasised the importance of research and development in driving innovation. KI1 remarked, "Our company dedicates resources to new product research each year," indicating a structured approach to innovation. KI2 agreed but raised a concern regarding resource allocation, observing that "the R&D budget is limited compared to global competitors," highlighting a potential constraint on innovation capacity.

Creativity and Problem-Solving: Both KI1 and KI2 highlighted that collaboration enhances creativity. KI1 explained, "When departments collaborate, we find innovative solutions faster," illustrating the value of teamwork in problem-solving. KI2 supported this view while noting operational challenges, stating, "Production pressures occasionally hinder creativity," which suggests that workflow demands can sometimes limit creative output.

Systems for Capturing Ideas: The informants agreed that mechanisms exist for employees to contribute ideas. KI1 confirmed, "We have platforms to share ideas, and some are implemented," demonstrating that ideas are actively captured and occasionally executed. KI2 added that "feedback on ideas is sometimes delayed," indicating that the process could be more responsive to maintain engagement.

Role of Technology: Both informants recognised technology as central to supporting innovation. KI1 emphasised, "Upgrading machinery has improved efficiency and reduced wastage," showing tangible benefits of technological investment. KI2 acknowledged this advantage but noted implementation challenges, stating, "Such upgrades are costly and slow to implement," highlighting financial and operational constraints.

This synthesis indicates that while Coca-Cola Mbarara actively promotes innovation through culture, R&D investment, collaboration, idea management systems, and technology, challenges such as limited budgets, production pressures, and delayed feedback can affect the full realisation of innovative potential.

4.5 Correlation analysis

Correlation analysis was conducted to determine the strength and direction of the relationship between innovation strategies and the performance of Coca Cola Manufacturing Company in Mbarara.

Table 5: Correlational Analysis

		Innovation	Performance of Multinational Companies
Innovation	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	102	
Performance of Multinational Companies	Pearson Correlation	.465**	
	Sig. (2-tailed)	.000	
	N	102	102

Source: *Field Data, 2025*

The correlation analysis presented in Table 5 shows a significant positive relationship between innovation strategies and the performance of Coca Cola Manufacturing Company in Mbarara, with a Pearson correlation coefficient of $r = 0.465$ and a significance level of $p = 0.000$. Since the p value is less than 0.01, the relationship is statistically significant, meaning that improvements in innovation strategies are strongly associated with better organisational performance.

The strength of the correlation ($r = 0.465$) indicates a moderate positive relationship, implying that as the company enhances its innovation efforts, such as investing in research and development, promoting creativity, and adopting new technologies, its overall performance tends to improve. This relationship demonstrates that innovation contributes to greater efficiency, product quality, and competitiveness within the company.

The findings suggest that Coca Cola Mbarara's focus on innovation plays a crucial role in achieving operational success and sustainability. When employees are encouraged to share ideas, and when the company continues to invest in new processes and technological advancements, performance outcomes improve. These results affirm that innovation is a key strategic driver of growth, enabling Coca Cola to maintain its market position and respond effectively to the dynamic business environment in Uganda.

4.6 Simple Linear Regression analysis

Simple regression analysis was conducted to examine the extent to which innovation strategies predict or influence the performance of Coca Cola Manufacturing Company in Mbarara.

The ANOVA results presented in Table 6 show the relationship between innovation strategies and the performance of Coca Cola multinational companies in Mbarara District. The regression model produced an F value of 11.181 with a significance level (Sig.) of 0.000, which is below the 0.05 threshold. This indicates that the model is statistically significant, meaning that innovation strategies collectively have a significant influence on the performance of the company.

Table 6: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	46.755	1	11.689	11.181	.000b
	Residual	136.949	101	1.045		
	Total	183.704	102			

a. Dependent Variable: performance of Coca Cola multinational company
b. Predictor: (Constant): Innovation Strategies

Source: *Field Data (2025)*

The regression sum of squares of 46.755 compared to the residual sum of squares of 136.949 suggests that a considerable proportion of the total variation in performance, which is 183.704, is explained by innovation strategies. This shows that the independent variable, innovation strategies, contributes meaningfully to predicting variations in the dependent variable, which is the performance of Coca Cola multinational companies. The findings imply that innovation strategies such as investment in research and development, technological improvement, employee creativity, and systems that encourage idea generation play an important role in improving the performance of Coca Cola in Mbarara. The statistically significant F value confirms that strengthening innovation related initiatives can enhance operational efficiency, competitiveness, and overall organisational success. This underscores the importance of continuous investment in innovation as a strategic approach to sustaining performance and growth in the dynamic manufacturing environment of Uganda.

Coefficient results

The regression analysis results presented in Table 7 show that innovation has a statistically significant positive effect on the performance of Coca Cola Manufacturing Company in Mbarara. The unstandardised coefficient for innovation ($B = 0.407$) indicates that for every one unit increase in innovation practices, the company's performance increases by 0.407 units, holding all other variables constant. The standardised coefficient ($\beta = 0.234$) and a t value of 2.023 with a p value of 0.045 confirm that this relationship is statistically significant at the 5 percent level. ($B=0.407$; $\beta = 0.234$; $t=2.023$; $p=0.045$)

Table 7: Coefficients

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta (β)	t	Sig.
1	(Constant)	.469	.527		.891	.375
	Innovation	.407	.201	.234	2.023	.045

a. Dependent Variable: performance of coca cola multinational companies b. innovation strategies

Source: *Field Data (2025)*

This finding implies that innovation strategies such as investment in research and development, adoption of new technologies, and encouragement of employee creativity significantly enhance Coca Cola's performance. The positive coefficient shows that as the company strengthens its innovation efforts, there is a measurable improvement in operational efficiency, productivity, and competitiveness.

The results further suggest that innovation is the most influential factor among the predictors included in the model, highlighting its central role in driving organisational growth. This means that Coca Cola Mbarara's ability to maintain strong performance and adapt to changing market demands depends largely on how effectively it continues to prioritise and invest in innovative practices.

4.6 Hypothesis Testing

$H0_1$ There is no significant relationship between innovation and performance of multinational companies in Mbarara district, Uganda

Innovation shows a statistically significant positive relationship with the performance of multinational companies ($t = 2.023$, $p = 0.045$, $p < 0.05$), and therefore, the null hypothesis that innovation has no statistically significant influence on the performance of multinational companies is rejected. The positive beta coefficient ($\beta = 0.234$) demonstrates that as innovation practices increase, the performance of multinational companies also improves, indicating that organizations that invest in innovative processes, product development, and creative problem-solving are more likely to achieve higher operational efficiency and overall success.

Discussion of findings

The study's finding that innovation strategies significantly and positively predict the performance of Coca Cola Manufacturing Company in Mbarara (B = 0.407, β = 0.234, t = 2.023, p = 0.045) accords with a body of empirical work that emphasises the central role of research and development, technology adoption and a culture of creativity in driving firm outcomes. For example, [38] report that technological sophistication, an international entrepreneurial orientation and a culture of innovation each enhance organisational performance in emerging African markets, and that open innovation strengthens these effects. That study supports the present result by showing that investment in technology and an innovation culture translate into better firm performance in contexts similar to Uganda. [37] also reinforces the present finding indirectly: firms with greater knowledge diversity achieve higher post acquisition innovation performance when managerial ability is strong, which suggests that innovation yields superior outcomes when organisational capacity to manage and exploit knowledge is in place. [39] and [40]further underline the importance of R&D intensity for innovation quality, showing that deliberate R&D sourcing and investment matter for the quality of innovation outputs that ultimately affect performance. [41] complements these studies by showing that R&D internationalisation and international human capital can mediate positive effects of environmental distance on innovation performance, which implies that outward looking R&D strategies can strengthen performance even when external conditions differ from the home market.

At the same time, some findings in the literature introduce important qualifications that help explain variation across contexts and studies. [36] find that cultural diversity can depress innovation performance in many alliance settings, except in explorative alliances where exposure to new cognitive frames outweighs the costs of managing difference. That result does not contradict the present finding that innovation improves performance but it does caution that the composition and management of human resources and partners shape whether innovation translates to superior outcomes. [39] also report nonlinear and context dependent relationships between R&D intensity, R&D diversity and innovation quality, including an inverted U-shaped relation for R&D intensity and a negative linear effect for R&D diversity in some tests. Those patterns suggest that indiscriminate increases in R&D effort or uncoordinated diversity in R&D activities may yield diminishing or even negative returns to the quality of innovation, and by extension to performance, unless absorptive capacity and coordination mechanisms are strengthened.

Taken together, the empirical literature largely concurs with the present study that purposeful innovation activity is a key driver of firm performance, but it also signals conditions under which innovation may not deliver expected gains. Managerial ability, absorptive capacity, the nature of alliances, and the structure of R&D activity appear as important boundary conditions. For Coca Cola Mbarara these implications are clear. Continued investment in R&D, technology upgrades and a supportive culture of creativity will likely improve operational efficiency and competitiveness. At the same time management should develop capacity to integrate and apply new knowledge, coordinate R&D diversity, and manage cultural and organisational differences so that innovations are implemented effectively. Policies that combine investment in innovation with strengthened managerial systems, knowledge application mechanisms and selective international R&D partnerships will most reliably convert innovation efforts into sustained performance improvements.

Theoretical implications

The findings of this study have strong theoretical implications grounded in the Diffusion of Innovation (DOI) Theory by Rogers (2003), which underpins the research. The statistically significant positive relationship between innovation and organisational performance at Coca Cola Mbarara (β = 0.234, p = 0.045) provides empirical support for the DOI theory's central proposition that the adoption and effective diffusion of innovative practices enhance organisational outcomes. The results affirm that when innovation strategies such as investment in research and development, technology adoption, and employee creativity are effectively communicated and embraced across the organisation, they lead to measurable improvements in productivity, efficiency, and competitiveness. This demonstrates that the diffusion process, through awareness, interest, evaluation, trial, and adoption, operates successfully within Coca Cola's organisational structure, resulting in enhanced performance.

The findings further imply that Coca Cola Mbarara's success in implementing innovation strategies aligns with the DOI theory's emphasis on relative advantage and compatibility. Employees are more likely to adopt innovative practices when they perceive clear benefits such as improved performance or alignment with organisational goals. The significant positive coefficient for innovation (B = 0.407) shows that the perceived advantages of adopting innovative ideas contribute directly to better operational outcomes. This validates the theory's argument that innovations that fit well within the existing work environment and culture are more readily adopted, thereby improving overall performance.

The results also extend the DOI theory by illustrating how observability and trialability influence innovation diffusion in a multinational manufacturing context. Coca Cola Mbarara's emphasis on open communication, continuous learning, and technology-driven solutions enhances the visibility and testability of new ideas, accelerating their acceptance among employees. The study therefore reinforces the theoretical notion that visible outcomes and the ability to experiment with new approaches facilitate the spread of innovation within organisations.

From a broader theoretical perspective, these findings highlight the DOI theory's applicability beyond traditional communication networks, extending its relevance to corporate innovation management and performance enhancement. The positive and significant relationship between innovation and organisational performance confirms that successful innovation diffusion not only transforms individual and group behaviours but also strengthens organisational systems, leading to sustainable competitive advantage. Consequently, the study provides empirical validation that the effective adoption and institutionalisation of innovation strategies are essential for driving growth and adaptability in multinational corporations operating in dynamic environments such as Mbarara.

Conclusion

The findings of this study indicate that innovation strategies have a significant and positive influence on the performance of Coca Cola Manufacturing Company in Mbarara, demonstrating that deliberate investments in research and development, adoption of new technologies, and promotion of employee creativity directly enhance operational efficiency, productivity, and competitiveness. The statistically significant relationship between innovation and organisational performance ($\beta = 0.234$, $p = 0.045$) confirms that innovation serves as a critical driver of growth, enabling the company to adapt effectively to changing market conditions and maintain a competitive edge. These results align with the Diffusion of Innovation theory, highlighting that the successful adoption and integration of innovative practices among employees translate into measurable improvements in performance outcomes. In conclusion, Coca Cola Mbarara's prioritisation of innovation not only strengthens internal capabilities but also positions the company for sustainable success, underscoring the necessity for continuous investment in and support of innovation strategies to achieve long-term organisational excellence.

Recommendations

Management at Coca Cola Manufacturing Company in Mbarara should prioritise sustained investment in research and development, ensuring that resources are consistently allocated to technological upgrades, process improvements, and product innovation. This investment should be coupled with fostering a culture that actively encourages employees to contribute creative ideas without fear of criticism, enabling the organisation to harness internal talent effectively. By embedding innovation into the company's strategic objectives, management can enhance operational efficiency, improve productivity, and strengthen competitiveness, ensuring the firm remains adaptable to dynamic market conditions.

Human resource practitioners should implement structured training and development programmes that build employee competencies in problem-solving, innovation management, and technology utilisation. Recognition and reward systems should be designed to incentivise innovative contributions, reinforcing a culture of continuous improvement. These efforts will not only enhance employee engagement but also translate into tangible performance outcomes as employees become more capable of generating and implementing innovative solutions.

Policymakers and industry regulators can play a supportive role by offering incentives such as tax relief, grants, or simplified approval processes for companies that invest in innovation. Such measures would lower financial and procedural barriers associated with research and technology adoption, encouraging Coca Cola and other multinational companies to pursue innovation more aggressively and sustainably.

Academic institutions and training providers should collaborate with Coca Cola to design and deliver targeted courses and workshops that enhance employees' technical and creative skills. This partnership would help bridge the gap between theoretical knowledge and practical application, equipping staff with the expertise needed to implement advanced technologies and innovative practices effectively.

Suppliers and technology partners should actively engage with Coca Cola to provide state-of-the-art equipment, innovative solutions, and technical support that improve production efficiency and product quality. By working closely with external partners, the company can access new ideas and technologies that complement internal innovation efforts, ultimately strengthening overall organisational performance.

Limitations of the study

One critical limitation of this study is its focus on a single multinational company, Coca Cola Manufacturing Company in Mbarara. This narrow scope limits the generalisability of the findings to other multinational corporations or industries in Uganda, as organisational structures, market dynamics, and innovation capacities may differ significantly across firms and sectors.

A second limitation is the reliance on cross-sectional data collected at a single point in time. This design restricts the ability to capture the dynamic nature of innovation processes and their long-term effects on organisational performance. Consequently, causal inferences are limited, and changes in performance resulting from innovation strategies over time cannot be fully assessed.

Suggestions for future research

Future research should consider expanding the scope to include multiple multinational companies across different industries in Uganda. This would allow for comparative analysis and enhance the generalisability of findings, providing a broader understanding of how innovation strategies influence organisational performance in diverse corporate contexts.

Another recommendation is to adopt a longitudinal research design to examine the long-term effects of innovation strategies on organisational performance. Tracking changes over time would provide deeper insights into causal relationships, the sustainability of innovation outcomes, and how companies adapt their strategies in response to evolving market conditions.

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