

Strategic Management Practices, Operational Efficiency, and Innovation Adoption on Business Performance in NUCTCH Company Limited

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Abstract—In the rapidly evolving business environment, organizations are increasingly challenged to maintain competitiveness while ensuring sustainable performance and continuous innovation. Strategic management practices, operational efficiency, and innovation adoption have been identified as key drivers of business performance. This study examined the level of these variables and their relationships and predictive influence on business performance in NUCTCH Company Limited. Using a descriptive-correlational research design, data were analyzed through weighted mean, Pearson's r , and multiple regression. The findings revealed that strategic management practices were at a very high level ($WM = 3.48$), with goal setting ranking highest, followed by executing plans, planning actions, monitoring progress, and adjusting strategies. Operational efficiency was also very high ($WM = 3.53$), with time management and cost control ranking highest, followed by process improvement, resource utilization, and waste reduction. Likewise, innovation adoption on business performance was very high ($WM = 3.51$), with process innovation ranking highest, followed by employee involvement, research and development, and technology use. Correlation results showed that strategic management practices had a moderate positive relationship with operational efficiency ($r = .517, p < .001$), a very strong positive relationship with innovation adoption ($r = .806, p < .001$), and operational efficiency had a strong positive relationship with innovation adoption ($r = .642, p < .001$), indicating that improvements in these areas are associated with better organizational outcomes. Multiple regression analysis revealed that the model significantly predicts innovation adoption on business performance ($F(2,106) = 99.766, p < .001$), explaining 65.3% of the variance ($R^2 = 0.653$). Strategic management practices emerged as the only significant predictor ($\beta = 0.775, p < .001$), while operational efficiency was not significant ($\beta = 0.062, p = .358$). It was concluded that strategic management practices play a dominant role in enhancing innovation adoption and business performance. Strengthening strategic planning and leadership decision-making is essential for sustaining organizational competitiveness.

Keywords— Strategic Management Practices, Operational Efficiency, Innovation Adoption, Business Performance.

I. INTRODUCTION

In the rapidly evolving business landscape, organizations are increasingly challenged to maintain competitiveness while ensuring sustainable growth. In this regard, strategic management practices play a vital role in guiding firms toward effective resource alignment, goal setting, and responsiveness to market changes (Pelliccia et al., 2022) [1]. More importantly, these practices enable organizations to anticipate

environmental shifts and improve decision-making processes that significantly influence overall business performance.

Furthermore, Vargas and Miro (2023) [2] emphasized that effective strategic frameworks enhance organizational agility by allowing firms to quickly adapt during unstable market conditions. In the same way, Chen et al. (2021) [3] highlighted that data-driven decision-making strengthens strategic management by enabling businesses to predict trends and minimize risks through advanced analytics. As a result, organizations become more proactive rather than reactive in addressing market challenges.

Similarly, Iqbal and Haque (2022) [4] explained that strategic management fosters an innovative organizational culture that enhances resilience and competitive advantage. In addition, Patel and Zhang (2024) [5] found that integrating stakeholder feedback into strategic planning improves alignment with market needs and strengthens organizational relationships. Moreover, these approaches ensure that strategic decisions remain relevant and responsive to external demands.

On the other hand, Tan et al. (2023) [6] stressed the importance of big data analytics in strategic management, noting that organizations with data-based strategies gain better insights into consumer behavior and market dynamics. Likewise, Garcia and Lopez (2024) [7] stated that incorporating corporate social responsibility into strategic planning improves brand equity and long-term competitiveness. In addition, Chang and Wu (2025) [8] further stated that organizational culture significantly affects the success of strategic management implementation, where collaboration and continuous learning improve decision execution. Taken together, these studies emphasize that strategic management is essential in achieving organizational effectiveness and long-term sustainability.

Meanwhile, in terms of operational efficiency, Chen et al. (2021) [9] found that lean management practices significantly reduce waste and improve process flow, resulting in higher productivity. In addition, Patel and Kumar (2023) [10] revealed that technology adoption, including automation and artificial intelligence, enhances resource allocation and operational speed.

Moreover, Lopez and Martin (2024) [11] emphasized that supply chain optimization improves service quality and reduces lead time, thereby contributing to operational agility. Likewise, Reed et al. (2025) [12] highlighted that employee engagement enhances operational performance by

encouraging participation in decision-making and innovation. Similarly, Zhao and Lee (2023) [13] stated that sustainability initiatives such as waste reduction and resource conservation not only support environmental goals but also improve cost efficiency. Collectively, these findings show that operational efficiency is influenced by both technological advancement and human resource involvement.

In relation to innovation adoption, Wang and Chen (2021) [14] found that integrating advanced technologies such as artificial intelligence and digital platforms improves efficiency and customer satisfaction. Similarly, Patel and Kumar (2023) [15] emphasized that open innovation models enhance product development and accelerate market entry, thereby strengthening overall business performance.

However, despite numerous studies examining strategic management practices, operational efficiency, and innovation adoption, it is evident that limited research has been conducted focusing specifically on these variables within NUCTCH Company Limited. Therefore, this study aimed to examine the level of strategic management practices, operational efficiency, and innovation adoption on business performance in the said company.

Ultimately, the findings of this research provided valuable insights into the company's current practices and served as baseline data for improving management strategies, operational systems, and innovation processes. In conclusion, this study contributes to enhancing organizational performance and promoting sustainable business growth within NUCTCH Company Limited.

1.1 Objective of the Study

The overall objective of this study was to determine the strategic management practices, operational efficiency, and innovation adoption on business performance in NUCTCH Company Limited. Specifically, this study had the following aims: (1) investigate the level of strategic management practices in terms of goal setting, planning actions, executing plans, monitoring progress, and adjusting strategies; (2) determine the level of operational efficiency in terms of time management, waste reduction, process improvement, resource utilization, and cost control; (3) assess the level of innovation adoption on business performance in terms of technology use, process innovation, employee involvement, and investment in research and development; (4) determine the significant relationship between strategic management practices and operational efficiency, strategic management practices and innovation adoption on business performance, and operational efficiency and innovation adoption on business performance of NUCTCH Company Limited; (5) examine the predictive ability of strategic management practices and operational efficiency, taken singly or in combination, on innovation adoption on business performance in NUCTCH Company Limited; and (6) propose an action plan based on the findings to enhance strategic management practices and operational efficiency, taken singly or in combination, to improve innovation adoption on business performance in NUCTCH Company Limited.

II. METHODS

To obtain the necessary data needed for the study, quantitative research was utilized. Vaidya (2020) [16] defined it as a method of research that relies on measuring variables using a numerical system, analyzing these measurements using statistical models, and reporting relationships among the studied variables. Through this approach, the study provided objective and measurable evidence regarding strategic management practices, operational efficiency, and innovation adoption on business performance in NUCTCH Company Limited.

Likewise, a descriptive-correlational research design was employed by the researcher, as it is appropriate for examining existing conditions and relationships among variables. Descriptive research focuses on gathering, analyzing, and interpreting data regarding prevailing conditions, practices, and processes, while correlational research determines the degree of relationship between variables without manipulating them (Rubite, 2020) [17]. Hence, this design was used to describe the levels of strategic management practices, operational efficiency, and innovation adoption, and to examine their relationships and predictive influence on business performance.

For the sampling technique, stratified random sampling was utilized in this study. As explained by Lemm (2020) [18], this probability sampling method divides the population into non-overlapping groups or strata and selects random samples from each group to improve accuracy and reduce sampling error. Using Slovin's Formula with a 95% confidence level and 5% margin of error, a total of 109 respondents were identified from a population of 150 project management team members in NUCTCH Company Limited. The respondents were considered suitable sources of data due to their direct involvement in strategic and operational functions within the company.

The respondents of the study were managers and project management team members of NUCTCH Company Limited in the United Arab Emirates. Data were gathered through standardized survey questionnaires administered both personally and online via Google Forms. Prior to distribution, the researcher explained the purpose of the study and provided clear instructions to ensure accurate and convenient responses. Since the instrument was researcher-made, it was subjected to validation by experts in research, language, and statistics, whose feedback ensured its content validity and clarity.

Furthermore, reliability testing was conducted using Cronbach's Alpha to ensure internal consistency of the instrument. The results indicated acceptable to good reliability across all variables, confirming that the questionnaire was suitable for statistical analysis and data interpretation.

Finally, the collected data were analyzed using statistical tools such as weighted mean and ranking to determine levels, Pearson r to test relationships, and Stepwise Multiple Regression Analysis to assess the predictive influence of the variables on innovation adoption on business performance.

III. RESULTS AND DISCUSSION

Table 1. Strategic Management Practices in terms of Goal Setting

Indicators	WM	SD	Interpretation
1.Goals are specific and easy to understand	3.64	.481	Strongly Agree
2.Goals support the company’s vision and mission.	3.48	.502	Strongly Agree
3.Goals can be tracked using clear metrics	3.55	.568	Strongly Agree
4.Goals are realistic given resources and capabilities.	3.49	.602	Strongly Agree
5.Goals have specific deadlines	3.58	.494	Strongly Agree
6.Goals are shared and understood across the organization.	3.46	.570	Strongly Agree
Average Weighted Mean	3.53	.243	Strongly Agree

Note. Scoring Range: 3.25 – 4.00 (Strongly Agree); 2.50 – 3.24 (Agree); 1.75 – 2.49 (Disagree); 1.00 – 1.74 (Strongly Disagree)

Table 1 shows the strategic management practices in terms of goal setting. Indicator 1, which states “Goals are specific and easy to understand,” obtained the highest weighted mean of 3.64 with a standard deviation of .481, interpreted as Strongly Agree. This was followed by Indicator 5, which states “Goals have specific deadlines,” with a weighted mean of 3.58 and a standard deviation of .494, interpreted as Strongly Agree. Next is Indicator 3, which states “Goals can be tracked using clear metrics,” with a weighted mean of 3.55 and a standard deviation of .568, interpreted as Strongly Agree. Indicator 4, which states “Goals are realistic given resources and capabilities,” obtained a weighted mean of 3.49 with a standard deviation of .602, interpreted as Strongly Agree. This was followed by Indicator 2, which states “Goals support the company’s vision and mission,” with a weighted mean of 3.48 and a standard deviation of .502, interpreted as Strongly Agree. Lastly, Indicator 6, which states “Goals are shared and understood across the organization,” obtained the lowest weighted mean of 3.46 with a standard deviation of .570, interpreted as Strongly Agree. In summary, the strategic management practices in terms of goal setting were strongly agreed upon, as indicated by the average weighted mean of 3.53 with a standard deviation of .243. This implies that organizations consistently establish clear, measurable, realistic, and time-bound goals that are aligned with their vision and mission, and are effectively communicated across all levels of the organization.

Table 2. Strategic Management Practices in terms of Planning Actions

Indicators	WM	SD	Interpretation
1. Actions are designed to achieve specific strategic objectives.	3.41	.709	Strongly Agree
2. Plans identify and allocate the necessary resources effectively.	3.54	.496	Strongly Agree
3. Tasks and initiatives are prioritized based on importance and impact.	3.44	.673	Strongly Agree
4. Plans can adapt to changes in the internal or external environment.	3.41	.564	Strongly Agree
5. Activities are synchronized across departments to ensure efficiency.	3.75	.433	Strongly Agree
6. Progress is regularly tracked, and adjustments are made as needed.	3.40	.529	Strongly Agree
Average Weighted Mean	3.49	.208	Strongly Agree

Note. Scoring Range: 3.25 – 4.00 (Strongly Agree); 2.50 – 3.24 (Agree); 1.75 – 2.49 (Disagree); 1.00 – 1.74 (Strongly Disagree)

Table 2 shows the strategic management practices in terms of planning actions. Indicator 5, which states “Activities are synchronized across departments to ensure efficiency,” obtained the highest weighted mean of 3.75 with a standard deviation of .433, interpreted as Strongly Agree. This was followed by Indicator 2, which states “Plans identify and allocate the necessary resources effectively,” with a weighted mean of 3.54 and a standard deviation of .496, interpreted as Strongly Agree. Next is Indicator 3, which states “Tasks and initiatives are prioritized based on importance and impact,” with a weighted mean of 3.44 and a standard deviation of .673, interpreted as Strongly Agree. Indicator 1, which states “Actions are designed to achieve specific strategic objectives,” obtained a weighted mean of 3.41 with a standard deviation of .709, interpreted as Strongly Agree. Similarly, Indicator 4, which states “Plans can adapt to changes in the internal or external environment,” also obtained a weighted mean of 3.41 with a standard deviation of .564, interpreted as Strongly Agree. Lastly, Indicator 6, which states “Progress is regularly tracked, and adjustments are made as needed,” obtained the lowest weighted mean of 3.40 with a standard deviation of .529, interpreted as Strongly Agree.

In summary, the strategic management practices in terms of planning actions were strongly agreed upon, as indicated by the average weighted mean of 3.49 with a standard deviation of .208. This implies that organizations consistently develop well-structured, flexible, and coordinated plans, effectively allocate resources, prioritize key initiatives, and monitor progress to ensure the achievement of strategic objectives.

Table 3. Strategic Management Practices in terms of Executing Plans

Indicators	WM	SD	Interpretation
1. Efficient use of financial, human, and technological resources.	3.44	.629	Strongly Agree
2. Departments and teams work together to implement the plan effectively.	3.44	.495	Strongly Agree
3. Actions are carried out according to the scheduled timeline.	3.66	.513	Strongly Agree
4. Adjustments are made in response to unexpected challenges or changes.	3.32	.575	Strongly Agree
5. Clear roles and ownership of tasks are established	3.66	.472	Strongly Agree
6. Progress is continuously tracked, and corrective measures are applied.	3.53	.536	Strongly Agree
Average Weighted Mean	3.51	.249	Strongly Agree

Note. Scoring Range: 3.25 – 4.00 (Strongly Agree); 2.50 – 3.24 (Agree); 1.75 – 2.49 (Disagree); 1.00 – 1.74 (Strongly Disagree)

Table 3 shows the strategic management practices in terms of executing plans. Indicator 3, which states “Actions are carried out according to the scheduled timeline,” and Indicator 5, which states “Clear roles and ownership of tasks are established,” both obtained the highest weighted mean of 3.66, with standard deviations of .513 and .472, respectively, interpreted as Strongly Agree. This was followed by Indicator 6, which states “Progress is continuously tracked, and corrective measures are applied,” with a weighted mean of 3.53 and a standard deviation of .536, interpreted as Strongly Agree. Next, Indicator 1, which states “Efficient use of

financial, human, and technological resources,” and Indicator 2, which states “Departments and teams work together to implement the plan effectively,” both obtained a weighted mean of 3.44, with standard deviations of .629 and .495, respectively, interpreted as Strongly Agree. Lastly, Indicator 4, which states “Adjustments are made in response to unexpected challenges or changes,” obtained the lowest weighted mean of 3.32 with a standard deviation of .575, interpreted as Strongly Agree.

In summary, the strategic management practices in terms of executing plans were strongly agreed upon, as indicated by the average weighted mean of 3.51 with a standard deviation of .249. This implies that organizations effectively implement plans through efficient resource utilization, strong teamwork, adherence to timelines, clear task ownership, and continuous monitoring with necessary adjustments to address challenges.

Table 4. Strategic Management Practices in terms of Monitoring Progress

Indicators	WM	SD	Interpretation
1. Continuously assesses performance against set goals	3.61	.488	Strongly Agree
2. Employs Key Performance Indicator and benchmarks to measure progress.	3.45	.495	Strongly Agree
3. Provides immediate insights for decision-making	3.42	.627	Strongly Agree
4. Detects deviations or issues early	3.29	.532	Strongly Agree
5. Implements adjustments to stay on track.	3.65	.515	Strongly Agree
6. Records progress for accountability and evaluation.	3.38	.636	Strongly Agree
Average Weighted Mean	3.46	.230	Strongly Agree

Note. Scoring Range: 3.25 – 4.00 (Strongly Agree); 2.50 – 3.24 (Agree); 1.75 – 2.49 (Disagree); 1.00 – 1.74 (Strongly Disagree)

Table 4 shows the strategic management practices in terms of monitoring progress. Indicator 5, which states “Implements adjustments to stay on track,” obtained the highest weighted mean of 3.65 with a standard deviation of .515, interpreted as Strongly Agree. This was followed by Indicator 1, which states “Continuously assesses performance against set goals,” with a weighted mean of 3.61 and a standard deviation of .488, interpreted as Strongly Agree. Next is Indicator 2, which states “Employs Key Performance Indicator and benchmarks to measure progress,” with a weighted mean of 3.45 and a standard deviation of .495, interpreted as Strongly Agree. This was followed by Indicator 3, which states “Provides immediate insights for decision-making,” with a weighted mean of 3.42 and a standard deviation of .627, interpreted as Strongly Agree. Indicator 6, which states “Records progress for accountability and evaluation,” obtained a weighted mean of 3.38 with a standard deviation of .636, interpreted as Strongly Agree. Lastly, Indicator 4, which states “Detects deviations or issues early,” obtained the lowest weighted mean of 3.29 with a standard deviation of .532, interpreted as Strongly Agree.

In summary, the strategic management practices in terms of monitoring progress were strongly agreed upon, as indicated by the average weighted mean of 3.46 with a standard deviation of .230. This implies that organizations consistently monitor performance through key indicators,

evaluate progress against goals, and make necessary adjustments to ensure accountability and continuous improvement

Table 5. Strategic Management Practices in terms of Adjusting Strategies

Indicators	WM	SD	Interpretation
1. Ability to modify strategies in response to internal or external changes.	3.58	.494	Strongly Agree
2. Identifying issues or obstacles that require strategic shifts	3.35	.476	Strongly Agree
3. Making timely and informed choices to redirect efforts.	3.61	.488	Strongly Agree
4. Regularly reviewing performance and outcomes.	3.46	.536	Strongly Agree
5. Incorporating new ideas or approaches to improve effectiveness.	3.20	.790	Strongly Agree
6. Ensuring adjusted strategies remain consistent with overall goals and vision.	3.35	.585	Strongly Agree
Average Weighted Mean	3.43	.254	Strongly Agree

Note. Scoring Range: 3.25 – 4.00 (Strongly Agree); 2.50 – 3.24 (Agree); 1.75 – 2.49 (Disagree); 1.00 – 1.74 (Strongly Disagree)

Table 5 shows the strategic management practices in terms of adjusting strategies. Indicator 3, which states “Making timely and informed choices to redirect efforts,” obtained the highest weighted mean of 3.61 with a standard deviation of .488, interpreted as Strongly Agree. This was followed by Indicator 1, which states “Ability to modify strategies in response to internal or external changes,” with a weighted mean of 3.58 and a standard deviation of .494, interpreted as Strongly Agree. Next is Indicator 4, which states “Regularly reviewing performance and outcomes,” with a weighted mean of 3.46 and a standard deviation of .536, interpreted as Strongly Agree. This was followed by Indicator 2, which states “Identifying issues or obstacles that require strategic shifts,” and Indicator 6, which states “Ensuring adjusted strategies remain consistent with overall goals and vision,” both with a weighted mean of 3.35, and standard deviations of .476 and .585, respectively, interpreted as Strongly Agree. Lastly, Indicator 5, which states “Incorporating new ideas or approaches to improve effectiveness,” obtained the lowest weighted mean of 3.20 with a standard deviation of .790, interpreted as Strongly Agree.

In summary, the strategic management practices in terms of adjusting strategies were strongly agreed upon, as indicated by the average weighted mean of 3.43 with a standard deviation of .254. This implies that organizations demonstrate flexibility by modifying strategies when necessary, making informed decisions, reviewing performance regularly, and ensuring that adjustments remain aligned with their overall goals and vision.

Table 6 shows the overall strategic management practices. As presented in the table, the overall weighted mean of 3.48 with SD (.190) indicates that the level of strategic management practices was “Strongly Agree.” Specifically, strategic management practices in terms of goal setting obtained the highest weighted mean of 3.53, followed by executing plans with a weighted mean of 3.51, planning actions with a weighted mean of 3.49, monitoring progress with a weighted mean of 3.46, and adjusting strategies with a

weighted mean of 3.43, all verbally interpreted as “Strongly Agree.”

Table 6. Overall Strategic Management Practices

Scale	Domains	WM	SD	Interpretation
Strategic management practices	Goal setting	3.53	.243	Strongly Agree
	Planning actions	3.49	.208	Strongly Agree
	Executing plans	3.51	.249	Strongly Agree
	Monitoring progress	3.46	.230	Strongly Agree
	Adjusting strategies	3.43	.254	Strongly Agree
OVERALL		3.48	.190	Strongly Agree

Note. Scoring Range: 3.25 – 4.00 (Very High); 2.50 – 3.24 (High); 1.75 – 2.49 (Low); 1.00 – 1.74 (Very Low)

The study result implies that the organization demonstrates a high level of strategic management practices through clearly defined goals, effective execution of plans, systematic planning of actions, consistent monitoring of progress, and adaptive strategies in response to changing conditions. These findings indicate that the organization maintains strong strategic alignment and operational effectiveness, contributing to improved performance and sustained organizational success.

Table 7. Level of Operational Efficiency in terms of Time Management

Indicators	WM	SD	Interpretation
1.Focuses on tasks that have the greatest impact on goals.	3.62	.573	Very High
2.Organizes activities to meet deadlines efficiently.	3.53	.601	Very High
3.Ensures tasks and operations are completed on time.	3.62	.486	Very High
4.Maximizes output within a given time frame.	3.60	.491	Very High
5.Assigns tasks effectively to avoid time wastage.	3.53	.646	Very High
6.Reduces idle time and unnecessary interruptions.	3.46	.570	Very High
Average Weighted Mean	3.56	.272	Very High

Note. Scoring Range: 3.25 – 4.00 (Very High); 2.50 – 3.24 (High); 1.75 – 2.49 (Low); 1.00 – 1.74 (Very Low)

Table 7 shows the level of operational efficiency in terms of time management. Indicator 1, which states “Focuses on tasks that have the greatest impact on goals,” and Indicator 3, which states “Ensures tasks and operations are completed on time,” both obtained the highest weighted mean of 3.62, with standard deviations of .573 and .486, respectively, interpreted as Very High. This was followed by Indicator 4, which states “Maximizes output within a given time frame,” with a weighted mean of 3.60 and a standard deviation of .491, interpreted as Very High. Next are Indicator 2, which states “Organizes activities to meet deadlines efficiently,” and Indicator 5, which states “Assigns tasks effectively to avoid time wastage,” both with a weighted mean of 3.53, and standard deviations of .601 and .646, respectively, interpreted as Very High. Lastly, Indicator 6, which states “Reduces idle time and unnecessary interruptions,” obtained the lowest

weighted mean of 3.46 with a standard deviation of .570, interpreted as Very High.

In summary, the level of operational efficiency in terms of time management was very high, as indicated by the average weighted mean of 3.56 with a standard deviation of .272. This implies that organizations effectively manage time by prioritizing important tasks, meeting deadlines, maximizing productivity, delegating responsibilities efficiently, and minimizing delays and interruptions in operations.

Table 8. Level of Operational Efficiency in terms of Waste Reduction

Indicators	WM	SD	Interpretation
1.Maximizes the use of materials, energy, and labor	3.58	.494	Very High
2.Reduces unnecessary expenses and operational costs.	3.31	.503	Very High
3.Streamlines workflows to eliminate non-value-adding activities.	3.56	.497	Very High
4.Promotes sustainable practices to minimize waste.	3.52	.537	Very High
5.Prevents defects and rework through quality control.	3.48	.502	Very High
6.Supports long-term efficiency by reducing environmental impact.	3.61	.488	Very High
Average Weighted Mean	3.51	.217	Very High

Note. Scoring Range: 3.25 – 4.00 (Very High); 2.50 – 3.24 (High); 1.75 – 2.49 (Low); 1.00 – 1.74 (Very Low)

Table 8 shows the level of operational efficiency in terms of waste reduction. Indicator 6, which states “Supports long-term efficiency by reducing environmental impact,” obtained the highest weighted mean of 3.61 with a standard deviation of .488, interpreted as Very High. This was followed by Indicator 1, which states “Maximizes the use of materials, energy, and labor,” with a weighted mean of 3.58 and a standard deviation of .494, interpreted as Very High. Next is Indicator 3, which states “Streamlines workflows to eliminate non-value-adding activities,” with a weighted mean of 3.56 and a standard deviation of .497, interpreted as Very High. This was followed by Indicator 4, which states “Promotes sustainable practices to minimize waste,” with a weighted mean of 3.52 and a standard deviation of .537, interpreted as Very High. Indicator 5, which states “Prevents defects and rework through quality control,” obtained a weighted mean of 3.48 with a standard deviation of .502, interpreted as Very High. Lastly, Indicator 2, which states “Reduces unnecessary expenses and operational costs,” obtained the lowest weighted mean of 3.31 with a standard deviation of .503, interpreted as Very High.

In summary, the level of operational efficiency in terms of waste reduction was very high, as indicated by the average weighted mean of 3.51 with a standard deviation of .217. This implies that organizations effectively minimize waste by optimizing resource utilization, reducing unnecessary costs, improving workflow efficiency, promoting sustainability, and ensuring quality control to support long-term operational effectiveness.

Table 9 shows the level of operational efficiency in terms of process improvement. Indicator 5, which states “Encourages staff participation in improving workflows,” obtained the highest weighted mean of 3.65 with a standard deviation of .497, interpreted as Very High. This was followed

by Indicator 6, which states “Monitors outcomes to assess the effectiveness of improvements,” with a weighted mean of 3.55 and a standard deviation of .552, interpreted as Very High. Next is Indicator 3, which states “Uses technology to speed up tasks and reduce manual effort,” with a weighted mean of 3.54 and a standard deviation of .500, interpreted as Very High. This was followed by Indicator 4, which states “Identifies and eliminates sources of mistakes or defects,” with a weighted mean of 3.51 and a standard deviation of .502, interpreted as Very High. Indicator 2, which states “Regularly evaluates and enhances processes for better results,” obtained a weighted mean of 3.49 with a standard deviation of .571, interpreted as Very High. Lastly, Indicator 1, which states “Establishes consistent methods to ensure quality and reliability,” obtained the lowest weighted mean of 3.43 with a standard deviation of .497, interpreted as Very High.

Table 9. Level of Operational Efficiency in terms of Process Improvement

Indicators	WM	SD	Interpretation
1. Establishes consistent methods to ensure quality and reliability.	3.43	.497	Very High
2. Regularly evaluates and enhances processes for better results.	3.49	.571	Very High
3. Uses technology to speed up tasks and reduce manual effort.	3.54	.500	Very High
4. Identifies and eliminates sources of mistakes or defects.	3.51	.502	Very High
5. Encourages staff participation in improving workflows.	3.65	.497	Very High
6. Monitors outcomes to assess the effectiveness of improvements.	3.55	.552	Very High
Average Weighted Mean	3.53	.249	Very High

Note. Scoring Range: 3.25 – 4.00 (Very High); 2.50 – 3.24 (High); 1.75 – 2.49 (Low); 1.00 – 1.74 (Very Low)

In summary, the level of operational efficiency in terms of process improvement was very high, as indicated by the average weighted mean of 3.53 with a standard deviation of .249. This implies that organizations consistently enhance their processes by standardizing methods, leveraging technology, engaging employees, eliminating inefficiencies, and continuously monitoring outcomes to ensure quality and improved performance.

Table 10. Level of Operational Efficiency in terms of Resource Utilization

Indicators	WM	SD	Interpretation
1. Distributes resources where they are most needed and effective.	3.51	.537	Very High
2. Minimizes wasteful spending and maximizes value from available assets.	3.46	.501	Very High
3. Ensures resources contribute to higher output and performance.	3.47	.602	Very High
4. Uses resources responsibly to support long-term operations.	3.52	.602	Very High
5. Tracks how resources are consumed to identify inefficiencies.	3.61	.488	Very High
6. Tracks how resources are consumed to identify inefficiencies.	3.54	.518	Very High
Average Weighted Mean	3.52	.216	Very High

Note. Scoring Range: 3.25 – 4.00 (Very High); 2.50 – 3.24 (High); 1.75 – 2.49 (Low); 1.00 – 1.74 (Very Low)

Table 10 shows the level of operational efficiency in terms of resource utilization. Indicator 5, which states “Tracks how resources are consumed to identify inefficiencies,” obtained

the highest weighted mean of 3.61 with a standard deviation of .488, interpreted as Very High. This was followed by Indicator 6, which states “Tracks how resources are consumed to identify inefficiencies,” with a weighted mean of 3.54 and a standard deviation of .518, interpreted as Very High. Next is Indicator 4, which states “Uses resources responsibly to support long-term operations,” with a weighted mean of 3.52 and a standard deviation of .602, interpreted as Very High. This was followed by Indicator 1, which states “Distributes resources where they are most needed and effective,” with a weighted mean of 3.51 and a standard deviation of .537, interpreted as Very High. Indicator 3, which states “Ensures resources contribute to higher output and performance,” obtained a weighted mean of 3.47 with a standard deviation of .602, interpreted as Very High. Lastly, Indicator 2, which states “Minimizes wasteful spending and maximizes value from available assets,” obtained the lowest weighted mean of 3.46 with a standard deviation of .501, interpreted as Very High.

In summary, the level of operational efficiency in terms of resource utilization was very high, as indicated by the average weighted mean of 3.52 with a standard deviation of .216. This implies that organizations effectively allocate, manage, and monitor resources to maximize value, enhance performance, minimize waste, and support sustainable and efficient operations.

Table 11. Level of Operational Efficiency in terms of Cost Control

Indicators	WM	SD	Interpretation
1. Establishes and monitors spending limits effectively.	3.70	.457	Very High
2. Tracks and analyzes costs to prevent overspending.	3.44	.568	Very High
3. Uses materials, labor, and equipment efficiently to reduce costs.	3.52	.501	Very High
4. Eliminates unnecessary expenses and non-value	3.53	.519	Very High
5. Ensures responsible use of company funds.	3.59	.529	Very High
6. Maintains low costs while sustaining quality and productivity.	3.57	.549	Very High
Average Weighted Mean	3.56	.271	Very High

Note. Scoring Range: 3.25 – 4.00 (Very High); 2.50 – 3.24 (High); 1.75 – 2.49 (Low); 1.00 – 1.74 (Very Low)

Table 11 shows the level of operational efficiency in terms of cost control. Indicator 1, which states “Establishes and monitors spending limits effectively,” obtained the highest weighted mean of 3.70 with a standard deviation of .457, interpreted as Very High. This was followed by Indicator 5, which states “Ensures responsible use of company funds,” with a weighted mean of 3.59 and a standard deviation of .529, interpreted as Very High. Next is Indicator 6, which states “Maintains low costs while sustaining quality and productivity,” with a weighted mean of 3.57 and a standard deviation of .549, interpreted as Very High. This was followed by Indicator 4, which states “Eliminates unnecessary expenses and non-value,” with a weighted mean of 3.53 and a standard deviation of .519, interpreted as Very High. Indicator 3, which states “Uses materials, labor, and equipment efficiently to reduce costs,” obtained a weighted mean of 3.52 with a standard deviation of .501, interpreted as Very High. Lastly,

Indicator 2, which states “Tracks and analyzes costs to prevent overspending,” obtained the lowest weighted mean of 3.44 with a standard deviation of .568, interpreted as Very High.

In summary, the level of operational efficiency in terms of cost control was very high, as indicated by the average weighted mean of 3.56 with a standard deviation of .271. This implies that organizations effectively manage costs by monitoring spending, analyzing expenses, optimizing resource use, eliminating unnecessary costs, and maintaining financial discipline while ensuring quality and productivity.

Table 12. Overall Level of Operational Efficiency

Scale	Domains	WM	SD	Interpretation
Operational efficiency	Time management	3.56	.272	Very High
	Waste reduction	3.51	.217	Very High
	Process improvement	3.53	.249	Very High
	Resource utilization	3.52	.216	Very High
	Cost control	3.56	.271	Very High
OVERALL		3.53	.131	Very High

Note. Scoring Range: 3.25 – 4.00 (Very High); 2.50 – 3.24 (High); 1.75 – 2.49 (Low); 1.00 – 1.74 (Very Low)

Table 12 shows the overall level of operational efficiency. As presented in the table, the overall weighted mean of 3.53 with SD (.131) indicates that the level of operational efficiency was “Very High.” Specifically, operational efficiency in terms of time management obtained the highest weighted mean of 3.56, tied with cost control, also with a weighted mean of 3.56, followed by process improvement with a weighted mean of 3.53, resource utilization with a weighted mean of 3.52, and waste reduction with a weighted mean of 3.51, all verbally interpreted as “Very High.” The study result implies that the organization demonstrates a very high level of operational efficiency through effective management of time and costs, continuous improvement of processes, optimal use of resources, and consistent waste reduction. These findings indicate that the organization maintains strong operational systems that support productivity, efficiency, and sustainable performance across all functional areas.

Table 13. Level of Innovation Adoption on Business Performance in terms of Technology Use

Indicators	WM	SD	Interpretation
1. Incorporates modern technologies into business operations.	3.56	.497	Very High
2. Utilizes technology to streamline processes and reduce manual work.	3.27	.448	Very High
3. Improves efficiency and output through tech-based solutions.	3.61	.488	Very High
4. Quickly adopts new technological trends and tools.	3.48	.554	Very High
5. Uses technology to gather and analyze data for informed choices.	3.30	.751	Very High
6. Leverages technology to stay ahead in the market.	3.38	.636	Very High
Average Weighted Mean	3.43	.268	Very High

Note. Scoring Range: 3.25 – 4.00 (Very High); 2.50 – 3.24 (High); 1.75 – 2.49 (Low); 1.00 – 1.74 (Very Low)

Table 13 shows the level of innovation adoption on business performance in terms of technology use. Indicator 3, which states “Improves efficiency and output through tech-based solutions,” obtained the highest weighted mean of 3.61 with a standard deviation of .488, interpreted as Very High. This was followed by Indicator 1, which states “Incorporates modern technologies into business operations,” with a weighted mean of 3.56 and a standard deviation of .497, interpreted as Very High. Next is Indicator 4, which states “Quickly adopts new technological trends and tools,” with a weighted mean of 3.48 and a standard deviation of .554, interpreted as Very High. This was followed by Indicator 6, which states “Leverages technology to stay ahead in the market,” with a weighted mean of 3.38 and a standard deviation of .636, interpreted as Very High. Indicator 5, which states “Uses technology to gather and analyze data for informed choices,” obtained a weighted mean of 3.30 with a standard deviation of .751, interpreted as Very High. Lastly, Indicator 2, which states “Utilizes technology to streamline processes and reduce manual work,” obtained the lowest weighted mean of 3.27 with a standard deviation of .448, interpreted as Very High.

In summary, the level of innovation adoption on business performance in terms of technology use was very high, as indicated by the average weighted mean of 3.43 with a standard deviation of .268. This implies that organizations actively integrate and utilize modern technologies to improve efficiency, enhance decision-making, streamline processes, and maintain competitiveness in the market.

Table 14. Level of Innovation Adoption on Business Performance in terms of Process Innovation

Indicators	WM	SD	Interpretation
1. Implements new technologies to perform tasks more effectively.	3.63	.502	Very High
2. Streamlines operations to save time and reduce costs.	3.49	.537	Very High
3. Improves consistency and accuracy in production or service delivery.	3.45	.553	Very High
4. Adapts processes quickly to market or environmental changes.	3.50	.571	Very High
5. Minimizes waste and resource use through improved methods.	3.61	.525	Very High
6. Increases overall output and organizational performance.	3.54	.553	Very High
	3.54	.256	Very High

Note. Scoring Range: 3.25 – 4.00 (Very High); 2.50 – 3.24 (High); 1.75 – 2.49 (Low); 1.00 – 1.74 (Very Low)

Table 14 shows the level of innovation adoption on business performance in terms of process innovation. Indicator 1, which states “Implements new technologies to perform tasks more effectively,” obtained the highest weighted mean of 3.63 with a standard deviation of .502, interpreted as Very High. This was followed by Indicator 5, which states “Minimizes waste and resource use through improved methods,” with a weighted mean of 3.61 and a standard deviation of .525, interpreted as Very High. Next is Indicator 6, which states “Increases overall output and organizational performance,” with a weighted mean of 3.54 and a standard deviation of .553, interpreted as Very High. This was followed by Indicator 4, which states “Adapts processes quickly to

market or environmental changes,” with a weighted mean of 3.50 and a standard deviation of .571, interpreted as Very High. Indicator 2, which states “Streamlines operations to save time and reduce costs,” obtained a weighted mean of 3.49 with a standard deviation of .537, interpreted as Very High. Lastly, Indicator 3, which states “Improves consistency and accuracy in production or service delivery,” obtained the lowest weighted mean of 3.45 with a standard deviation of .553, interpreted as Very High.

In summary, the level of innovation adoption on business performance in terms of process innovation was very high, as indicated by the average weighted mean of 3.54 with a standard deviation of .256. This implies that organizations continuously improve their processes by integrating new technologies, enhancing efficiency, reducing costs and waste, and adapting quickly to changes, resulting in improved overall performance.

Table 15. Level of Innovation Adoption on Business Performance in terms of Employee Involvement

Indicators	WM	SD	Interpretation
1. Encourages employees to contribute ideas and solutions.	3.64	.481	Very High
2. Promotes teamwork in developing and implementing innovations.	3.48	.502	Very High
3. Gives employees authority and confidence to take initiative.	3.55	.568	Very High
4. Provides training to enhance employees’ innovative capabilities.	3.49	.602	Very High
5. Inspires employees to engage actively in innovation processes.	3.58	.494	Very High
6. Strengthens employees’ dedication to achieving organizational goals through innovation.	3.46	.570	Very High
Average Weighted Mean	3.53	.2433	Very High

Note. Scoring Range: 3.25 – 4.00 (Very High); 2.50 – 3.24 (High); 1.75 – 2.49 (Low); 1.00 – 1.74 (Very Low)

Table 15 shows the level of innovation adoption on business performance in terms of employee engagement. Indicator 1, which states “Encourages employees to contribute ideas and solutions,” obtained the highest weighted mean of 3.64 with a standard deviation of .481, interpreted as Very High. This was followed by Indicator 5, which states “Inspires employees to engage actively in innovation processes,” with a weighted mean of 3.58 and a standard deviation of .494, interpreted as Very High. Next is Indicator 3, which states “Gives employees authority and confidence to take initiative,” with a weighted mean of 3.55 and a standard deviation of .568, interpreted as Very High. This was followed by Indicator 4, which states “Provides training to enhance employees’ innovative capabilities,” with a weighted mean of 3.49 and a standard deviation of .602, interpreted as Very High. Indicator 2, which states “Promotes teamwork in developing and implementing innovations,” obtained a weighted mean of 3.48 with a standard deviation of .502, interpreted as Very High. Lastly, Indicator 6, which states “Strengthens employees’ dedication to achieving organizational goals through innovation,” obtained the lowest weighted mean of 3.46 with a standard deviation of .570, interpreted as Very High.

In summary, the level of innovation adoption on business performance in terms of employee engagement was

very high, as indicated by the average weighted mean of 3.53 with a standard deviation of .243. This implies that organizations actively engage employees in innovation by encouraging participation, fostering teamwork, empowering initiative, providing training, and motivating employees to contribute to organizational goals through innovative practices.

Table 16. Level of Innovation Adoption on Business Performance in terms of Investment in R&D

Indicators	WM	SD	Interpretation
1. Focuses on enhancing products, services, and processes through ongoing research.	3.64	.481	Very High
2. Encourages exploring new ideas and testing innovative solutions.	3.48	.502	Very High
3. Dedicates funds, talent, and time specifically for R&D activities.	3.55	.568	Very High
4. Develops or adopts new technologies to strengthen competitiveness.	3.49	.602	Very High
5. Supports sustainable business performance through innovation-driven strategies.	3.58	.494	Very High
6. Enables the company to stay ahead by introducing unique and improved offerings.	3.46	.570	Very High
Average Weighted Mean	3.53	.243	

Note. Scoring Range: 3.25 – 4.00 (Very High); 2.50 – 3.24 (High); 1.75 – 2.49 (Low); 1.00 – 1.74 (Very Low)

Table 16 shows the level of innovation adoption on business performance in terms of investment in research and development (R&D). Indicator 1, which states “Focuses on enhancing products, services, and processes through ongoing research,” obtained the highest weighted mean of 3.64 with a standard deviation of .481, interpreted as Very High. This was followed by Indicator 5, which states “Supports sustainable business performance through innovation-driven strategies,” with a weighted mean of 3.58 and a standard deviation of .494, interpreted as Very High. Next is Indicator 3, which states “Dedicates funds, talent, and time specifically for R&D activities,” with a weighted mean of 3.55 and a standard deviation of .568, interpreted as Very High. This was followed by Indicator 4, which states “Develops or adopts new technologies to strengthen competitiveness,” with a weighted mean of 3.49 and a standard deviation of .602, interpreted as Very High. Indicator 2, which states “Encourages exploring new ideas and testing innovative solutions,” obtained a weighted mean of 3.48 with a standard deviation of .502, interpreted as Very High. Lastly, Indicator 6, which states “Enables the company to stay ahead by introducing unique and improved offerings,” obtained the lowest weighted mean of 3.46 with a standard deviation of .570, interpreted as Very High.

In summary, the level of innovation adoption on business performance in terms of investment in R&D was very high, as indicated by the average weighted mean of 3.53 with a standard deviation of .243. This suggests that organizations strongly prioritize research and development by continuously improving products and processes, investing resources in innovation, adopting new technologies, and sustaining competitiveness through the introduction of improved and unique offerings.

Table 17. Overall Level of Innovation Adoption on Business Performance

Scale	Domains	WM	SD	Interpretation
Innovation adoption	Technology use	3.43	.268	Very High
	Process innovation	3.54	.256	Very High
	Employee involvement	3.53	.243	Very High
	Investment in R&D	3.53	.243	Very High
OVERALL		3.51	.187	Very High

Note. Scoring Range: 3.25 – 4.00 (Very High); 2.50 – 3.24 (High); 1.75 – 2.49 (Low); 1.00 – 1.74 (Very Low)

Table 17 shows the overall level of innovation adoption on business performance. As presented in the table, the overall weighted mean of 3.51 with SD (.187) indicates that the level of innovation adoption was “Very High.” Specifically, innovation adoption in terms of process innovation obtained the highest weighted mean of 3.54, followed by employee involvement and investment in research and development (R&D), both with a weighted mean of 3.53, and technology use with a weighted mean of 3.43, all verbally interpreted as “Very High.”

The study result implies a very high level of innovation adoption on business performance through strong implementation of process innovation, active employee involvement, sustained investment in research and development, and effective use of technology. These findings indicate that the organization maintains a strong innovation-driven environment that supports competitiveness, continuous improvement, and enhanced business performance across all operational areas.

Table 18. Relationship Between Strategic Management Practices and Level of Operational Efficiency of Nuctch Company Limited

Independent	Dependent	Pearson’s r ^a	p-value	Interpretation ^b
Strategic management practices	Operational efficiency	.517 (moderate)	< .001	Significant

Note. ^aCorrelation: 0.00 – 0.19 (very weak); 0.20 – 0.39 (weak); 0.40 – 0.59 (moderate); 0.60 – 0.79 (strong); 0.80 – 1.00 (very strong). (Evans, 1996)

^bSignificant at <.05.

For the relationship between strategic management practices and the level of operational efficiency of Nuctch Company Limited, a Pearson r value of .517 was obtained, indicating a moderate correlation with a p-value of < .001, which is lower than the test of significance at .05. This implies that there is sufficient statistical evidence to reject the null hypothesis, showing a significant relationship between the variables.

Table 19. Relationship Between Strategic Management Practices and Level of Innovation Adoption on Business Performance of Nuctch Company Limited

Independent	Dependent	Pearson’s r ^a	p-value	Interpretation ^b
Strategic management practices	Innovation adoption	.806 (very strong)	< .001	Significant

Note. ^aCorrelation: 0.00 – 0.19 (very weak); 0.20 – 0.39 (weak); 0.40 – 0.59 (moderate); 0.60 – 0.79 (strong); 0.80 – 1.00 (very strong). (Evans, 1996)

^bSignificant at <.05.

This means that as the level of strategic management practices increases, the level of operational efficiency also tends to increase. Organizations that effectively implement strategic planning, decision-making, and resource management are more likely to achieve improved efficiency in their operations, leading to better performance and productivity.

For the relationship between strategic management practices and the level of innovation adoption on business performance of Nuctch Company Limited, a Pearson r value of .806 was obtained, indicating a very strong correlation with a p-value of < .001, which is lower than the test of significance at .05. This implies that there is sufficient statistical evidence to reject the null hypothesis, showing a significant relationship between the variables. This means that higher levels of strategic management practices are strongly associated with higher levels of innovation adoption. Organizations that effectively apply strategic planning, leadership, and decision-making are more likely to adopt innovative practices, technologies, and processes, which in turn enhances their overall business performance.

Table 20. Relationship Between the Level of Operational Efficiency and Level of Innovation Adoption on Business Performance of Nuctch Company Limited

Independent	Dependent	Pearson’s r ^a	p-value	Interpretation ^b
Operational efficiency	Innovation adoption	.642 (strong)	< .001	Significant

Note. ^aCorrelation: 0.00 – 0.19 (very weak); 0.20 – 0.39 (weak); 0.40 – 0.59 (moderate); 0.60 – 0.79 (strong); 0.80 – 1.00 (very strong). (Evans, 1996)

^bSignificant at <.05.

For the relationship between the level of operational efficiency and the level of innovation adoption on business performance of Nuctch Company Limited, a Pearson r value of .642 was obtained, indicating a strong correlation with a p-value of < .001, which is lower than the test of significance at .05. This implies that there is sufficient statistical evidence to reject the null hypothesis, showing a significant relationship between the variables.

This means that higher levels of operational efficiency are associated with higher levels of innovation adoption. Organizations that manage their resources effectively, streamline processes, and improve productivity are more capable of adopting new technologies and innovative practices, which contribute to enhanced overall business performance.

Table 21. Model Summary of the Combined Predictive Power of Strategic Management Practices and Level of Operational Efficiency on the Level of Innovation Adoption of Nuctch Company Limited

Model	R ²	Adj. R ²	F	df	p-value	Interpretation
1	.653	.647	99.766	2, 106	<.001	Significant

Note. Predictors: (Constant) Strategic management practices, operational efficiency

Dependent Variable: Innovation adoption on business performance

Table 21 presents the model summary of the combined predictive power of strategic management practices and the

level of operational efficiency on the level of innovation adoption of Nuctch Company Limited. The results indicate that the regression model is statistically significant ($F(2, 106) = 99.766, p < .001$), demonstrating that the set of predictors collectively provides a strong explanation of the level of innovation adoption. This confirms that the model fits the data significantly better than a model with no predictors.

The coefficient of determination ($R^2 = 0.653$) shows that 65.3% of the variance in innovation adoption is explained by strategic management practices and operational efficiency. This reflects a high level of explanatory power, suggesting that these factors play a substantial role in enhancing innovation adoption in the organization.

The adjusted R^2 value (.647) further indicates that the model remains robust after accounting for the number of predictors included. This suggests minimal inflation of the explained variance and supports the stability and reliability of the model.

This implies that the findings reveal that strategic management practices and operational efficiency significantly and strongly influence innovation adoption on business performance. Consequently, the null hypothesis stating that these predictors have no significant effect on innovation adoption is rejected.

Table 22. Predictive Power of Strategic Management Practices and Level of Operational Efficiency on the Level of Innovation Adoption on Business Performance of Nuctch Company Limited

Predictors	B	SE	Beta (β)	p-value	Decision	Interpretation
Strategic management practices	.759	.065	.775	<.001	Reject H_0	Significant
Operational efficiency	.088	.095	.062	.358	Fail to reject H_0	Not Significant

Note. Dependent Variable: Innovation adoption on business performance

As detailed in Table 22, the predictors show varying degrees of influence on the level of innovation adoption on business performance. Strategic management practices emerged as the dominant and only significant predictor ($\beta = 0.775, p < .001$), exerting the greatest influence on the model. The unstandardized coefficient indicates that for every one-unit increase in strategic management practices, innovation adoption increases by 0.759 units. This suggests that the organization’s ability to effectively plan, implement strategies, and make informed decisions is the most critical factor in enhancing innovation adoption. On the other hand, operational efficiency did not significantly predict innovation adoption ($\beta = 0.062, p = .358$). Although its unstandardized coefficient shows that a one-unit increase in operational efficiency corresponds to a 0.088 increase in innovation adoption, this effect is not statistically significant. This indicates that while efficient operations may support business processes, they do not independently drive innovation adoption in a meaningful way within the model. Consequently, the null hypothesis for operational efficiency is not rejected, while it is rejected for strategic management practices.

This implies that innovation adoption in Nuctch Company Limited is primarily driven by strategic direction rather than

operational processes. Strategic management provides the vision and framework necessary for innovation, while operational efficiency alone is insufficient to significantly influence the adoption of new ideas, technologies, or practices.

IV. CONCLUSION AND RECOMMENDATION

The level of strategic management practices in NUCTCH Company Limited revealed that respondents “strongly agree,” indicating a very high level of practice. This implied that the organization effectively implements goal setting, planning actions, executing plans, monitoring progress, and adjusting strategies. It further suggested that strong strategic direction supports alignment, adaptability, and overall organizational effectiveness.

When it came to the level of operational efficiency, the findings showed that it was “very high.” This indicated that the organization performs efficiently in terms of time management, waste reduction, process improvement, resource utilization, and cost control. It implied that the company maintains high productivity, minimizes waste, and optimizes the use of its resources.

In terms of innovation adoption on business performance, the results revealed a “very high” level. This suggested that the organization actively adopts innovation through technology use, process innovation, employee involvement, and investment in research and development. It further implied that the company fosters a culture that supports continuous improvement, adaptability, and competitiveness.

With regard to the relationship between strategic management practices and operational efficiency, the findings showed a significant moderate relationship. This implied that as the level of strategic management practices increases, the level of operational efficiency also improves. It suggested that effective planning, decision-making, and resource allocation contribute to enhanced efficiency and productivity.

In terms of the relationship between strategic management practices and innovation adoption on business performance, the results revealed a significant and very strong relationship. This indicated that higher levels of strategic management practices are associated with greater innovation adoption. It implied that strong leadership, clear direction, and well-defined strategies play a crucial role in promoting innovation within the organization.

When it comes to the relationship between operational efficiency and innovation adoption on business performance, the findings showed a significant strong relationship. This suggested that efficient operations, streamlined processes, and effective resource management support the adoption of innovative practices and technologies, thereby enhancing overall performance.

Overall, the combined influence of strategic management practices and operational efficiency significantly predicts innovation adoption on business performance. This implied that these variables collectively contribute to organizational success. However, it was revealed that strategic management practices emerged as the strongest and only significant predictor, while operational efficiency did not independently predict innovation adoption.

This further implied that innovation adoption in NUCTCH Company Limited is primarily driven by strategic direction rather than operational processes alone. While operational efficiency supports organizational functioning, it is the strategic management practices that provide the vision, direction, and framework necessary for innovation to thrive.

Based on the findings, an action plan was proposed to strengthen strategic management practices, operational efficiency, and innovation adoption. The P.R.O.G.R.E.S.S. framework was introduced as a comprehensive guide for enhancing strategic alignment, improving operational systems, and sustaining innovation-driven growth. It emphasized the importance of strategic planning, efficient operations, and continuous innovation to ensure long-term competitiveness and organizational performance.

All in all, the findings suggested that while the organization already demonstrates high levels of strategic management, operational efficiency, and innovation adoption, continuous improvement is essential. Strengthening these areas will ensure sustained adaptability, efficiency, and innovation across all levels of the organization.

The following recommendations were made by the researcher based on the following findings.

To the management of NUCTCH Company Limited, the researcher suggests that they should further strengthen the organization's strategic management practices by enhancing goal setting, planning actions, execution, monitoring, and strategy adjustment. This may be achieved through continuous improvement of strategic planning systems, conducting regular performance evaluations, and ensuring alignment of all departments with the organization's vision and mission to promote effective decision-making and organizational coherence.

To managers and supervisors, the researcher recommends that they sustain and improve operational efficiency by strengthening time management, resource utilization, process improvement, waste reduction, and cost control. They may implement standardized workflows, utilize efficiency monitoring tools, and provide regular training on productivity and lean management practices to ensure consistent and high-level operational performance.

To employees, the researcher encourages active participation in innovation adoption by strengthening engagement in technology use, process innovation, employee involvement, and research and development. This may be achieved by embracing digital tools, participating in innovation-driven programs, and contributing ideas that can enhance processes and overall business performance.

To the IT and innovation teams, the researcher recommends enhancing the organization's technological capabilities by upgrading systems, providing continuous ICT training, and integrating digital solutions into daily operations. These efforts will help improve efficiency, support innovation adoption, and maintain organizational competitiveness.

To the human resource department, the researcher suggests developing continuous capability-building programs that support both strategic management practices and operational efficiency. This may include leadership training, performance

management workshops, and innovation-focused seminars to strengthen employee competencies and improve overall organizational effectiveness.

Lastly, the researcher recommends that future researchers replicate this study in different organizational settings and consider additional variables, larger sample sizes, and alternative research designs. This will further expand understanding of the relationship between strategic management practices, operational efficiency, and innovation adoption on business performance and sustainability.

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