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A STUDY ON SUPPLY CHAIN MANAGEMENT PRACTICE AND ITS IMPACT ON PERFORMANCE OF SMALL MEDIUM ENTERPRISE

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ABSTRACT

By managing the costs and efficiency of the supply chain requirements, small and medium-sized businesses (SMEs) can improve their operational efficiency through efficient supply chain logistics and services. The purpose of this study was to investigate the connection between small and medium-sized businesses' performance and supply chain management strategies. A sample of 108 SME managers, dealers, and distributors were selected for this study. Mean, standard deviation and correlation were used to determine the relationship between supply chain management practices and the performance of SMEs. The results of this study revealed that all the variables namely internal supply chain process, Strategic partnership with suppliers, Internal environment management, Government regulation, and Environmental factors positively related to the performance of SMEs, and the relationship is found to be positive.

Keywords: Supply Chain Management, SME supply Performance, Internal environment management, supply chain process.

INTRODUCTION

In small and medium-sized businesses, supply chain management aims to ensure effectiveness and efficiency over the long run. Since small and medium-sized businesses are dynamic, self-regulating, and open systems, management successfully ensures that they adapt to the essentially dynamic, open, and stochastic operating environment. The effectiveness and efficiency of the supply chain are evaluated through supply chain performance measurement. It facilitates the comparison of various alternatives by evaluating supply chain variables to identify the optimal performance level Sorak and Dragic (2013). Waiyawuththanapoom et al. (2020) define supply chain management practices (SCMP) as a set of activities conducted within an organisation to facilitate continuous process flow, supplier collaboration, cycle time efficiency, technological information sharing, and outsourcing, among others. Kot et al. (2020) stated that supply chain management is a crucial managerial instrument in organisations. Nonetheless, it is also predominantly utilised in small and medium organisations. Chileshe and Phiri (2022) posited that supply chain management (SCM) practices encompass the activities executed by an organisation to facilitate the efficient administration of its supply chain. The

techniques of Supply Chain Management (SCM) are suggested to be a multi-faceted term, encompassing both the downstream and upstream aspects of the supply chain. Operational measures for the constructs are constructed and empirically tested, utilising data gathered from survey respondents. Structural equation modelling is employed to evaluate the proposed linkages.

Due to the significant impact that supply chain innovation in the new normal has on SMEs' performance, supply chain management has attracted a lot of attention from a variety of industries, but especially from the SME sector. SMEs must innovate their business processes, take supplier operations and customer requirements into account, and implement effective supply chain management (SCM) practices because SCM is complex and involves multiple dimensions within business organisations, including SMEs, primary suppliers, and target customers (Sukati et al., 2023). Chileshe and Phiri (2022) Supply Chain Management (SCM) practices encompass the collection of operations executed by an organization to facilitate the efficient management of its supply chain. The techniques of Supply Chain Management (SCM) are suggested to be a multidimensional term, incorporating both the downstream and upstream aspects of the supply chain. According to Alam et al. (2025) small and medium enterprises (SMEs) with effective supply chain logistics and services can enhance their operational efficiency by optimising costs and alleviating onerous requirements. However, limited resources and an abundance of rules are the predominant challenges in many commercial initiatives. The principal initiatives for these enterprises encompass facilitating the growth of local startups and promoting collaboration among firms.

REVIEW OF LITERATURE

Kerekes and Felfoldi (2020) conducted a study to identify optimal supply chain management methods as a strategic approach to enhance the performance of small and medium-sized enterprises. This study reported a flat structure and an ability to innovate. Dimensions and adaptability, Information systems and infrastructure. Minimal organizational hierarchy, CEO participation in operational decision-making, and the discrepancy between real demand and projections. Regular modifications to orders, reduced manufacturing lead time, elevated personnel turnover, and specific customer requirements Attributes of SMEs and rationale for selecting SCM.

Lenny Koh et al. (2007) made an attempt to ascertain the fundamental dimensions of supply chain management (SCM) practices and to empirically evaluate a framework that delineates the interconnections among SCM practices, operational performance, and SCM-related organizational performance, particularly focusing on small and medium-sized enterprises (SMEs) in Turkey. A sample of 203 manufacturing SMEs in Istanbul, Turkey, that produced general-purpose machinery and fabricated metal goods (NACE codes 28 and 29) provided the study's data. The partial least squares method, a variance-based structural equation modelling tool, was used to assess the study framework. The results show that operational performance is directly, favourably, and significantly impacted by both SCLP and OMS parameters. On the other hand, a significant direct correlation between the two performance dimensions was found, however neither SCLP nor OMS had a significant and direct impact on SCM-related organisational performance.

Dzikriansyah et al. (2023) conducted a study to examines the impact of green supply chain management strategies on environmental performance in Indonesian small and medium companies (SMEs). Using research tools based on partial least squares-structural equation modelling (PLS-SEM), this study uses a quantitative approach to analyse a particular population or sample. 89 managers and owners of small and medium-sized businesses in Indonesia participated in this study. The results imply that SMEs are not driven to embrace green supply chain management by internal variables, such as strategic direction and internal environment management. At the same time, outside factors, such as laws, have a big impact on the adoption of green supply chain management. Additionally, it suggests that SMEs' environmental performance would be impacted by the adoption of green supply chain management.

Tukamuhabwa et al. (2021) examined the relationship between SMEs' competitive advantage, logistical capabilities, supply chain management strategies, and logistics integration in a developing country. Structural equation modelling and exploratory and confirmatory factor analysis were used to examine cross-sectional data from 204 SMEs in Kampala, Uganda. The results of the study showed a positive and significant correlation between competitive advantage and supply chain management strategies and logistics integration. Additionally, logistics integration is positively and strongly correlated with logistical capabilities and supply chain management techniques.

Sukati et al. (2023) attempted to examine Strategic Partnerships With Primary Suppliers (SPWMS), Strategic Partnerships With Target Customers (SPWTC), Information Sharing With Supply Chain Partners (ISWSCP), Internal Supply Chain Integration (ISCI), and Supply Chain Innovation (SCI) in the context of the new normal and the performance of SMEs. The findings indicated that SPWMS significantly predicted SME performance, SCI in the new normal did not significantly moderate the link between SPWMS and SME performance, and SPWTC significantly predicted SME performance.

Chileshe and Phiri (2022) carried out a study to investigate how supply chain management methods affect business performance through competitive factors. With a calculated sample size of 151, the target demography consisted of small and medium-sized agro-dealers in Lusaka. The idea was tested using regression analysis. The study's findings showed that supply chain management adoption has an impact on performance with regard to internal environment management and competitive priorities.

Kot et al. (2020) conducted a study to examine the supply chain management among 613 SMEs in Canada, Iran, and Turkey to analyse SME practices within a global framework. The results of this study revealed that the variables, barriers, practices, functioning, environmental factors and social sustainability of SCM exhibit statistically significant differences among opposing economies.

The study by Zhou and Li (2020) uses survey data from 138 Chinese small and medium-sized businesses to look into how supply chain tactics and quality control affect company performance. Innovation and market share measurements are part of business performance. Information exchange in the supply chain greatly improves quality management practices, according to the report, and supplier-specific investments in quality management have a favourable impact on both market share and innovation performance. The study's findings also

show that there are no variations in quality management procedures, supply chain information sharing, or business success between companies with different levels of supplier-specific expenditure (both high and low).

Waiyawuththanapoom et al. (2020) performed a study to examine the moderating influence of innovation on the link between Supply Chain Management Practices (SCMP) and Firm Performance (FP) in Indonesian SMEs. A cross-sectional research methodology was employed, distributing 250 questionnaires to supply chain managers of SMEs through a convenience sampling method. The study's findings indicate that all management techniques exhibit a positive and significant correlation with the financial performance of Indonesian SMEs. Moreover, the indirect moderating effect of innovation indicates that it applies a positive and significant moderating influence in the majority of the SCMP and FP.

RESEARCH METHODS

This study focuses on the performance of supply chain management practices in SMEs. This study is based on the primary data collected through a questionnaire to observe the determinants associated with the supply chain management of SMEs. A cross-sectional research methodology was employed, distributing 120 questionnaires to supply chain managers of SMEs. Among the non-probability sampling methods, convenient sampling was used for this study because data were conveniently available to the researcher. 114 questionnaires were returned, and 108 were found to be valid responses. Six responses were considered invalid due to an incomplete record. A sample of 108 SME managers, dealers, distributors were selected for this study. The questionnaire comprises factors that influenced the performance of supply chain determinants such as Strategic orientation, Internal supply chain process, Strategic partnership with suppliers, Internal environment management, Government regulation, and Environmental performance.

Objectives of the study

1. To assess the perception of supply chain management practice followed by the SMEs managers.
2. To examine relationship between the supply chain management strategies and performance of SMEs.

RESULTS AND DISCUSSIONS

Perception regarding the Work Stress of the Banking Employees

The respondents are given their perception about the supply chain management practice followed by the SME managers. The supply chain management practice factors are grouped under the following headings:

Strategic orientation

1. Internal supply chain process
2. Strategic partnership with suppliers
3. Internal environment management
4. Government regulation
5. Environmental performance

Table 1 - Perception regarding the Work Stress of the Banking Employees

Factors	Statements	Mean	S.D.
Internal Supply Chain Process	Process for finding supplier	3.25	0.919
	Delivery activity of department	3.11	1.047
	Separate logistic department	3.37	1.068
	Inventory planning	4.10	1.219
Strategic Partnership with Suppliers	Ambiguous or contradictory responsibilities	3.92	1.913
	Collaborate with overseas suppliers	3.23	1.248
	Strong relationship with suppliers	3.45	1.470
	Process for finding best supplier	3.47	1.287
Internal Environment Management	Updated supply chain management trend	4.01	1.128
	Process for handling cost efficiency	3.86	0.472
	Process of forecasting method	3.14	1.249
	Materials and products tracking	3.71	1.292
Environmental Performance	Knowledge of downstream and upstream industrial processes	2.90	1.678
	Adequate transportation facilities	3.14	0.198
	Evaluation of defective raw materials	3.79	1.721
	Environmental standards	2.99	1.137
Government Regulation	Testing of package	3.12	0.810
	Current public policy regarding SCM	3.01	0.846
	Trade regulations	3.99	1.091
	Technological investments	3.70	0.981

Internal Supply Chain Process

The above table indicates that the Internal Supply Chain Process is one of the supply chain management factors measured with four variables: the following mean score is rated by the respondents: Process for finding a supplier is 3.25, the Delivery activity of the department is 3.11, Separate logistic department is 3.37, and Inventory planning is 4.10. It is observed that managers rated high in Inventory planning performed by the management, Separate logistic department, and Delivery activity of the department. These factors that highly performed by the supply chain management.

Strategic Partnership with Suppliers

Strategic Partnership with Suppliers is the combination of Ambiguous or contradictory responsibilities, collaborate with overseas suppliers, Strong relationships with suppliers, and Process for finding the best supplier. The mean score of these variables listed were 3.92, 3.23, 3.45 and 3.47, respectively. It is observed that Ambiguous or contradictory responsibilities, Process for finding the best supplier, and Strong relationships with suppliers are high rated mean scores by the respondents.

Internal Environment Management

Updated supply chain management trends, Process for handling cost efficiency, Process of forecasting method, and Materials and products tracking are the combination of Internal Environment Management factors. The mean scores of these variables listed were 4.01, 3.86, 3.14, and 3.71, respectively. It is inferred that the Updated supply chain management trend

Process for handling cost efficiency has a high mean score among Internal Environment Management factor.

Environmental Performance

Environmental Performance factor combined the variables, namely Knowledge of downstream and upstream industrial processes, Adequate transportation facilities, Evaluation of defective raw materials, and Environmental standards. The mean score of these variables listed were 2.90, 3.14, 3.79, and 2.99, respectively. It is found that the Evaluation of defective raw materials and Adequate transportation facilities have a high mean score, is means that these two variables play important roles in performing the supply chain management in SMEs.

Government Regulation

Testing of the package, Current public policy regarding SCM, Trade regulations, and Technological investments are the combination of Government Regulation factors. It is revealed that the mean score of the Testing of the package is 3.12, Current public policy regarding SCM is 3.01, Trade regulations is 3.99, and Technological investments is 3.70. the above results observed that Trade regulations, Technological investments, and Testing of packages influenced the performance of supply chain management among SMEs.

Null Hypothesis Ho1: There is no significant relationship between (a) Internal Supply Chain Process(b) Strategic Partnership with Suppliers (c) Internal Environment Management (d) Environmental Performance (e) Government Regulation on performance of supply chain management in SMEs.

Supply Chain Management Factors	Performance of SME	
	r = value	p = value
Internal Supply Chain Process	0.673**	<.001
Strategic Partnership with Suppliers	0.691**	<.001
Internal Environment Management	0.590**	<.001
Environmental Performance	0.689**	<.001
Government Regulation	0.532**	<.001

** Significant at 1% level

Internal Supply Chain Process is supply chain management practice related to the performance of SMEs significant, and the relationship is found to be positive (r=0.673), the null hypothesis is rejected at 1% level. It is concluded that the supply chain management factor Internal Supply Chain Process helps in improving the performance of SMEs.

Strategic Partnership with Suppliers significantly related and found to be positive (r=0.691), the null hypothesis is rejected at 1% level. It is found that Strategic Partnership with Suppliers factors helps in improving the performance of SMEs.

Internal Environment Management is a supply chain management practice related to the performance of SMEs, and the relationship is found to be positive (r=0.590); the null

hypothesis is rejected at the 1% level. It is concluded that the supply chain management factor of Internal Environment Management helps in improving the performance of SMEs.

Environmental Performance is a supply chain management practice related to the performance of SMEs, and the relationship is found to be positive (r=0.532); the null hypothesis is rejected at the 1% level. It is concluded that the supply chain management factor of Environmental Performance helps in improving the performance of SMEs.

Government Regulation is a supply chain management practice related to the performance of SMEs, and the relationship is found to be positive (r=0.689); the null hypothesis is rejected at a 1% level. It is concluded that the supply chain management factor of Environmental Performance helps in improving the performance of SMEs.

CONCLUSION

Finally, the Internal supply chain process, Strategic partnership with suppliers, Internal environment management, Government regulation, and Environmental performance are important factors that strongly affect the performance of SMEs. Supply Chain Management (SCM), which encompasses multiple facets inside business organisations, including small and medium-sized companies (SMEs), primary suppliers, and target customers, SMEs are compelled to reinvent their business operations. Proper inventory planning by the management, Ambiguous or contradictory responsibilities of managers, updated supply chain management trends and tactics, efficient materials and products tracking, Evaluation of defective raw materials, and favourable Trade regulations are the important factors that create sustainable growth and development for the SMEs.

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