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Supply chain management performance and logistics among selected small and medium-sized enterprises in Sagamu Local Government Area, Ogun State, Nigeria

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Abstract. Small and medium-sized businesses in Nigeria are beginning to recognise the importance of supply chain management for economic growth, but they are still lagging behind in understanding the integrated supply chain dimensions that drive remarkable changes in business processes and yield positive outcomes for improved service quality, efficiency and cost reduction. The purpose of this study was to ascertain how supply chain management performance and logistics relate to particular small and medium-sized enterprises in Ogun State, Nigeria. The adoption of a descriptive survey methodology allowed for this. A systematic questionnaire was used to gather primary data. Both descriptive and inferential statistics were used to analyse the data that was gathered. The data were described and summarised using the descriptive analysis. The impact of the independent variable on logistics was evaluated using analysis of variance. The strategy and flexibility of the supply chain were used to gauge the effectiveness of supply chain management. The results demonstrate that logistics, as predicted by hypothesis one, has a major impact on supply chain flexibility. They also

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demonstrate that logistics, as predicted by hypothesis two, has a major impact on supply chain strategy. According to the study's findings, performance evaluation is crucial for businesses in order to assess how well they are accomplishing their strategic goals, especially with regard to their supply chain and logistics operations. In order to gain a competitive edge and improve their business performance, the study suggested, among other things, that small and medium-sized enterprises embrace supply chain flexibility and make flexible, adaptable modifications to meet market demands. The study's findings will provide manufacturers, researchers, scholars, policymakers, students, and anyone else interested in operations and production management with a better understanding of the effectiveness of comprehensive supply chain and logistics management performance metrics

Keywords: distribution chain; flexibility; strategy; business performance; competitiveness

INTRODUCTION

Small and medium-sized enterprises (SMEs) are not well-versed in the principles of effective supply chain management (SCM). SMEs have greater challenges with SCM procedures than do major corporations, as they strive to handle and adapt to the growing complexity of markets, technologies and suppliers. The supplier, storage, production, distributor, retailer, and client have long been the focal points of SCM, sometimes leaving out other crucial components like quality control and logistics or traffic management. An essential component of efficient SCM is tracking the movement of both departing and incoming products. This traffic management function manages schedules and makes decisions about how and when to move, accounting for the costs of different options, legal requirements, organisational needs regarding quantities and timing, and outside variables such possible delays in movement. Ineffective logistics planning has frequently caused major issues for Nigeria's SCM.

As for SCM, scholars defined it differently. The majority of research on SCM originates from the fields of operations and logistics, with smaller contributions coming from marketing, information systems, and technology. Although SCM facilitates communication between suppliers and end users, its primary objective is to deliver the correct product at the right location at the right time. Significant paradigm shifts have occurred in SCM and logistics around the year 2021. Competitive pressure has fuelled the growing interest in SCM and logistics, which has ultimately elevated them to become a crucial component of organisational operations and strategy. It makes sense that these organisational functions now play a larger role. As noted by S.M. Shavarani *et al*. (2019) and A. Rejeb *et al*. (2020), in order to remain competitive in a business environment that is becoming more and more dynamic, companies must effectively manage their supply chain and logistics operations. C.S. Tang & L.P. Veelenturf (2019) emphasised that to deliver the right product to the right client at the right time, organisations must constantly improve their SCM and logistics systems. Historically, logistics has not been viewed as a strategic source of competitive advantage, but rather as an expensive but necessary cost driver for firms. But when new technologies have emerged, businesses have been able to take advantage of fresh opportunities and gain a competitive edge. Scholars such as H. Treiblmaier *et al*. (2020) and A. Rejeb *et al*. (2020) view that throughout the supply chain the integration of new technologies has the potential to enhance information sharing and make it easier to monitor physical items.

As noted by K. Jermsittiparsert *et al*. (2019), SMEs are enhancing their operational performance by managing the supply chain more effectively. To maintain sustainability and competitiveness in a global setting, these companies are innovating their internal processes. The supply chain is a key element influencing how well a company performs since it comprises businesses and activities engaged in every stage of the process, from the creation of goods or services to their consumption. By strengthening the bonds between its companies to increase profitability for everybody, the supply chain reaches its peak performance. Through these strategic connections, SCM seeks to increase company performance and competitiveness. Stated differently, the secret to a successful supply chain and business is to reinforce the tactics that have been developed within it. According to R. Lee (2021), since SMEs are essential to the growth of the national economy, supply chain strategies must be introduced and implemented in order to ensure their sustainability. Nonetheless, compared to large organisations, these businesses frequently have a poorer production efficiency ratio. Globally, logistics and SCM have become significant economic drivers in the majority of countries, which boosts national economies. The purpose of this study was to examine the extent to which supply chain flexibility among a sample of SMEs in Sagamu Local Government Area, Ogun State, Nigeria, depends on logistics and to investigate the degree to which supply chain strategy within these SMEs relies on logistics. The study considered the following hypotheses. H_{01}: Logistics has no significant effect on supply chain flexibility. H_{02}: Logistics has no significant effect on supply chain strategy.

MATERIALS AND METHODS

For this research project, a descriptive survey research design was chosen and was conducted within the period of year 2021 to year 2023. Through primary data collection, a descriptive survey research approach was employed to gather information from the study population regarding the current status of the phenomenon. SMEs with top, middle and lower-level cadres that operate in Sagamu Local Government Areas in Ogun State make up the study's target population. Thus, the 184 respondents who are the owners/managers and supervisors of SMEs in Sagamu Local Government Areas, Ogun State, comprise the population of study for this research project. Using T. Yamane (1967) methodology, a sample size of 126 respondents was chosen for this research project from the 184 respondents in the study region. 126 is provided as the sample size. Frequency counts and the straightforward percentage approach of analysis were used to examine the respondents' demographic data (Table 1).

Table 1. Demographic characteristics of respondents

Characteristics	Classification	Percentage
Gender	Male	44.2
	Female	55.8
Age	Below 25 years	25.0
	26-35 years	45.8
	36-45 years	17.5
	46-55 years	9.2
	Above 56 years	2.5
Marital status	Single	50.0
	Married	43.3
	Other	6.7
Educational qualification	WAEC	16.7
	NCE/OND/HND	28.3
	Bachelor of Science/Bachelor of Arts/Bachelor of Education	34.2
	Master of Sciences/Master of Business Administration/Master of Education	18.3
	Others	2.5
Length of service	0-5 years	39.2
	5-10 years	44.2
	11-20 years	13.3
	Above 20 years	3.3

Note: WAEC – West African Examinations Council's certificate; NCE – Nigeria certificate in education; OND – ordinary national diploma; HND – higher national diploma
Source: created by the authors

To obtain sufficient, relevant and trustworthy data, the study used solely primary sources of information. Questionnaires are among the tools used in data collection. It was anticipated that the primary data, which measured SCM and logistics among particular SMEs, would live up to the researcher's expectations. However, the validity of the primary data depends on how the research hypotheses turn out. For this reason, the target respondents were given the questionnaires, and they were also informed of the purpose and goals of doing so in order to ensure the validity of the information gathered about the research variables. Being the easiest way of collecting data from the respondents, copies of the questionnaire were distributed. The following statements were included in the questionnaire. Logistics: reduced warehouse costs; reduced obsolescence; faster order processing speed; reduced inventory at all sites of supply chain. Supply chain flexibility: creating flexible organisation in order to meet variety of customer and supplier; managing reasonably the cost of switching from one supplier to another; launching of new product at right time in market. Supply chain strategy: providing quality products and services; offering modular parts in competitive price; using power of existing knowledge, ability and resources. The American Sociological Association's Code of Ethics (1997) was used for conducting research with respondent.

The study used a regression method of analysis to interpret the research hypotheses and a straightforward percentage method with a frequency distribution table to display and analyse each questionnaire's results as clearly as feasible. Moreover, primary data collected via the distribution of questionnaires were processed using Statistical Package for the Social Sciences (SPSS) software. This made it possible for the output and processed data to be shown in tables for qualitative assessments and justifications of the study variables. Analysis of variance (ANOVA) was conducted. With the use of the linear regression analysis approach, the study's hypothesised were examined.

RESULTS AND DISCUSSION

Responses obtained from questionnaire items of the research instrument are presented in Table 2. Here are the responses presented in line with research variables (Table 2).

Table 2. Analysis of questionnaire items

S/N	Statements	Strongly agree 1	Agree 2	Undecided 3	Disagree 4	Strongly disagree 5
	LOGISTICS					
L1	Reduced warehouse costs	26.7%	41.7%	12.5%	10%	9.1%
L2	Reduced obsolescence	36.7%	31.7%	9.2%	8.3%	14.1%
L3	Faster order processing speed	55%	25.9%	3.3%	8.3%	7.5%
L4	Reduced inventory at all sites of supply chain	22.5%	35%	6.7%	19.2%	16.6%
	SUPPLY CHAIN FLEXIBILITY					
SF1	Creating flexible organisation in order to meet variety of customer and supplier	37.5%	46.7%	1.6%	7.5%	6.7%
SF2	Managing reasonably the cost of switching from one supplier to another	28.3%	42.5%	4.2%	16.7%	8.3%
SF3	Launching of a new product at right time in market	59.2%	33.3%	0%	4.2%	3.3%

Table 2, Continued

S/N	Statements	Strongly agree 1	Agree 2	Undecided 3	Disagree 4	Strongly disagree 5
SUPPLY CHAIN STRATEGY						
SS1	Providing quality products and services	43.3%	42.5%	3.3%	4.2%	6.7%
SS2	Offering modular parts at competitive price	28.3%	43.3%	5.9%	17.5%	5%
SS3	Using power of existing knowledge, ability and resources	41.7%	43.3%	2.5%	6.7%	5.8%

Source: created by the authors

H_{01}: Logistics has no significant effect on supply chain flexibility. To test the hypothesis, the study adopted simple regression analysis where the scores of logistics were regressed on the values of supply chain flexibility. The relevant regression results for the hypothesis one are presented in Table 3.

Table 3. Linear regression analysis showing effect of logistics on supply chain flexibility

Model summary					
Model	*R*	R^2	Adjusted R^2	Std. error of the estimate	
1	0.684[a]	0.647	0.644	0.61292	
a. Predictors: (constant), supply chain flexibility					
ANOVA[a]					
Model		Sum of squares	*Df*	Mean square	*F*
1	Regression	15.339	1	15.339	40.829
	Residual	50.008	119	0.376	
	Total	65.347	120		
a. Dependent variable: logistics					

Coefficients[a]						
Model		Unstandardised coefficients		Standardised coefficients	*F*	Sig.
		B	Std. error	beta		
1	(Constant)	2.008	0.324		6.191	0.000
	Supply chain flexibility	0.541	0.085	0.684	6.390	0.000
a. Dependent variable: logistics						

Source: created by the authors

Table 3 demonstrates that the model's R^2 of 0.647 indicates that variations in supply chain flexibility account for 64.7% of the variation in logistics. One hypothesis for the variation in logistics described by supply chain flexibility (64.7%) is that there may be more factors affecting logistics that the model did not account for. The model is statistically significant, according to the ANOVA results ($F = 40.83$, $p = 0.000$, hence, $p < 0.05$). The statistical significance and favourable impact of logistics on supply chain flexibility are demonstrated by the standardised coefficients. The findings of the simple regression model refute the null hypothesis, H_{01}, which holds that supply chain flexibility is not statistically significantly impacted by logistics. Thus, the null hypothesis is disproved. This implies that increased logistics would arise from supply chain flexibility. At the 5% level, the logistical coefficient was positive and statistically significant. The positive correlation demonstrated by the coefficient of logistics indicated that these SMEs would gain 68.4% supply chain flexibility from a 1% increase in their logistics. Therefore, the null hypothesis is rejected and the alternative hypothesis is accepted. Logistics, then, significantly improves supply chain flexibility.

H_{02}: Logistics has no significant effect on supply chain strategy. To test the hypothesis, the study adopted simple regression analysis where the scores of logistics were regressed on the values of supply chain strategy. The relevant regression results for the hypothesis one is presented in Table 4.

Table 4. Simple linear regression analysis showing effect of logistics on supply chain strategy

Model summary						
Model	*R*	R^2	Adjusted R^2	Std. error of the estimate		
1	0.516	0.476	0.471	0.52781		
a. Predictors: (constant), supply chain strategy						
ANOVA[a]						
Model		Sum of squares	*Df*	Mean square	*F*	Sig.
1	Regression	13.840	1	13.840	36.227	0.000[b]
	Residual	51.507	119	0.387		
	Total	65.347	120			
a. Dependent variable: logistics						

Table 4, Continued

Coefficients[a]						
Model		Unstandardised coefficients		Standardised Coefficients	*T*	Sig.
		B	Std. error	*β*		
1	(Constant)	2.306	0.295		7.816	0.000
	Supply chain strategy	0.477	0.079	0.516	6.019	0.000
a. Dependent variable: logistics						

Source: created by the authors

Table 4 demonstrates that the model's R^2 of 0.476 indicates that variations in supply chain strategy account for 47.6% of the variation in logistics. The possibility that there may be more factors influencing logistics that the model did not account for explains the variation in logistics explained by supply chain strategy (47.6%). The model is statistically significant, according to the ANOVA results ($F = 36.227$, $p = 0.000$, hence, $p < 0.05$). The statistical significance and positive impact of logistics on supply chain strategy is demonstrated by the standardised coefficients. The results of the simple regression model refute the null hypothesis (H_{02}), which holds that supply chain strategy is not statistically significantly impacted by logistics. Thus, the null hypothesis is disproved. This implies that higher logistics would follow from the provision of a supply chain plan. The logistical coefficient was statistically significant and positive at the 5% level. The positive correlation indicated by the coefficient of logistics demonstrated that, for every 1% increase in logistics, these SMEs would obtain 51.6% of their supply chain strategy from the improved logistics. As a result, the alternative hypothesis is accepted and the null hypothesis is rejected. Thus, supply chain strategy benefits greatly from logistics.

The study looks at the connection between logistics and SCM effectiveness among certain SMEs in Ogun State, Nigeria. After the data was analysed and the hypotheses were tested, the results showed that logistics significantly affects the supply chain flexibility, as predicted by hypothesis one, and that it also significantly affects the supply chain strategy, as predicted by hypothesis two. The study leads to the conclusion that businesses in the supply chain collaborate with one another to make, distribute, and sell different parts and raw materials in a network of producers and assembly manufacturers. Therefore, as a tactic to promote SCM, SMEs can enhance their corporate financial performance by optimising their organisational competency. Furthermore, the study found that an organisation's performance – particularly with regard to its logistics and SCM – is crucial in assessing how well it is accomplishing its strategic goals. SMEs can improve their core skills to boost the performance of the supply chain and thus boost their competitiveness in an environment where supply chain rivalry is garnering attention. In addition, companies can find new opportunities by researching and creating new supply networks in the long run, as well as by enhancing their current supply chains in the short term.

Furthermore, the survey found that SCM gives businesses the capacity to set benchmarks for value-added operations and assess the effectiveness of different supply chain and logistics domains. Any business that wants to stand out from the competition must focus on the crucial field of logistics. The process of figuring out how to get inputs and turn them into goods and services in the most effective and profitable way is known as SCM. SMEs should embrace supply chain flexibility to create flexible and agile adjustments that meet market demands and provide them a competitive edge and better business performance. In order to maximise their total performance, organisations should aim to implement the most successful and efficient SCM strategy. Finally, in order to provide services that are tailored to the needs of their clients, SMEs should be customer-focused or attuned to the demands of the current markets. Naturally, the first step should be to choose reliable suppliers who can fulfil delivery commitments. In order to guarantee that the products placed on the market satisfy both customer expectations and the intended standards, the management must work to make sure that the quality control is a routine activity.

The findings presented here corroborate those of A. Chandak *et al*. (2019), who claimed that, depending on an organisation's research, technology commercialisation and marketing capabilities, supply chain strategies can enhance overall business success. Supply chain strategies, in particular, can enhance corporate performance through cost reduction, quality improvement, enhanced delivery performance, and flexibility through the optimisation of each firm's organisational skills. Furthermore, the results corroborated the conclusions that logistics and other independent factors (supply chain flexibility and supply chain strategy) have favourable relationships. A case study of Lagos State demonstrated that managers need to take into account the bridge in its entirety rather than concentrate on who just one facilitator or inhibitor for effective SCM. Also, the findings agreed with R. Lee (2021), who shows that supply chain strategy had a significant effect on SME organisational competencies. Additionally, the researcher analysed the mediating effect of organisational competencies on the effect of supply chain strategy on overall business performance.

M. Rahiminezhad Galankashi & F. Mokhatab Rafiei (2021) defined SCM as the process of transforming raw resources into end goods and delivering those items to clients. In this sense, every SCM involves several flows (information, money and product) and components (suppliers, manufacturers, distributors, retailers and customers). Consequently, the goal of SCM is to take into account and manage each of these elements and flows simultaneously. More research-related, SCM is experiencing a number of trends and problems. Scholars such as S.A. Gawankar *et al*. (2019) have focused more on SCM performance measurement among these concerns. Additionally, SCM, encompasses the information systems required to keep an eye on all of those processes. The integrated philosophy of SCM is used to control the distribution process from supplier to end user.

Researchers such as A. Rojo-Gallego-Burin *et al*. (2020) and S. Bag & M.S. Rahman (2023), who studied SCM, have used supply chain flexibility as well as supply chain strategy.

P. Centobelli *et al*. (2020) noted that many organisations have embraced supply chain flexibility to create flexible and adaptive adjustments to meet market requirements because the supply chain operates in an uncertain environment. This has allowed them to gain a competitive edge and improve their business performance. The idea of supply chain flexibility, according to P. Centobelli *et al*. (2020) and J.J.-E. Yoo & M. Cho (2021), should be viewed as multidimensional and operationalised by many aspects, such as product flexibility and volume flexibility. Supply chain flexibility is widely acknowledged to be a multi-dimensional construct, even though its precise definition and dimensions are unknown. A comprehensive definition would encompass the flexibility aspects that are necessary for all supply chain actors. Moreover, J.J.-E. Yoo & M. Cho (2021) suggested that not all supply chain organisations can attain the same degree of flexibility since supply chain flexibility is a particular organisational capacity.

According to K. Yu *et al*. (2018), gaining a competitive edge in an organisation solely through internal development is challenging. Businesses must figure out how to acquire new capabilities in order to adapt to changing conditions and heightened global. Corporate supply chain strategies are important tools for enhancing performance and innovation. These strategies can assist businesses in growing and adapting to environmental changes. An SCM strategy can therefore assist businesses in overcoming these obstacles. According to R. Lee (2021) and I. Kryvovyazyuk (2023), demand and supply planning is a vital component of vendor-managed inventory, enterprise replenishment planning, collaborative planning, forecasting, and replenishment, warehouse management systems, and outsourcing strategies. It has also been applied in a variety of organisational relationships in the supply chain. These strategies facilitate factors that enhance corporate performance. A mutually accepted inventory level can be established in terms of vendor-managed inventory through strong information flow across inter-firm interactions.

A. Ali *et al*. (2020) defined logistic as the process of organising, putting into practice and managing the economical and efficient movement of raw materials, finished goods, in-process inventory, and associated data from the point of consumption to the point of origin with the intention of recovering value or disposing of waste properly. According to this concept, the first step in logistics can be taken by distributors, retailers, and internal organisation resources that can be used to gather and repurpose manufacturing wastes or product side materials. J. Euchi *et al*. (2018) referred logistics to the procedure focused on the management of returned goods awaiting recovery via processes such as reusing, fixing, recycling or awaiting complete disposal.

J. Bor (2020) defined logistics as the process of transporting things backward in order to capture value and carry out appropriate disposal, remanufacturing, and refurbishment activities. According to Y. Zhang *et al*. (2018), it is "the process of moving goods from their typical final destination for the purpose of recycling, reuse, capturing value or proper disposal". Logistics refers to the range of tasks carried out following a product's sale, including maintenance, repair and recycling, with the aim of recovering or appropriately disposing of the product's value. M. Farouk & S.M. Darwish (2020) noted that a company's handling of items returned to the manufacturer by a customer fall under the category of logistics. This includes all the processes involved in deciding what happens to the returned goods. In order to guarantee environmentally responsible disposal while also generating revenue through recycling or resale in the secondary market, the logistics process entails a number of operations that must be completed in order to gather old, unwanted or disposal products.

The study made the following recommendations in light of its key findings and conclusions: the findings revealed that logistics capabilities significantly impact supply chain flexibility. Efficient logistics systems enable SMEs to adapt quickly to market changes and disruptions, ensuring continuous operations and customer satisfaction. The study found that logistics plays a critical role in the overall supply chain strategy, influencing performance outcomes. Enterprises with streamlined logistics operations reported higher levels of productivity, faster delivery times and reduced operational costs. Policymakers must focus on improving infrastructure such as roads and power supply to support the logistics operations of SMEs. Additionally, government-backed initiatives can promote access to affordable financing for logistics upgrades. Implementing sustainable logistics strategies, such as eco-friendly transportation and optimised delivery routes, can reduce operational costs and align with global trends toward sustainable business practices. SMEs should adopt supply chain flexibility to create agile and adaptable changes to meet market demands in order to gain a competitive edge and improve business performance. In order to fully optimise their overall performance, organisations should aim to adopt the most effective and efficient SCM strategy. SMEs must be customer-focused or sensitive to the demands of the current markets in order to provide services that are tailored to the needs of the clients.

CONCLUSIONS

The research's findings led to the following conclusions. On the basis of the study's findings, it can be deduced that businesses function as a chain of producers and assembly manufacturers in the supply chain as they produce, distribute and market a variety of parts and raw materials. As a result, as a strategy to aid SCM, SMEs can enhance their corporate financial performance by maximising their organisational competence. The study came to the conclusion that performance, particularly with regard to logistics and SCM activities, is crucial for organisations to understand how they are achieving their strategic objectives. SMEs can improve their core competencies to increase the performance of the supply chain and thereby enhance their competitiveness in an environment where supply chain competition is garnering attention. Additionally, businesses can find new opportunities by exploring and developing new supply chains over the long term while also short-term enhancing their current supply chains.

The study concluded that SCA empowers organisations to establish benchmarks for identifying value-added operations and facilitates the measurement of performance across various aspects of logistics and SCM. In the

competitive landscape, each business must differentiate itself, particularly in the critical domain of logistics. SCM involves selecting the most effective and profitable methods to acquire inputs and transform them into goods and services. This process inherently begins with identifying reliable suppliers capable of meeting deadlines. To ensure that what is released onto the market meets both the desired standards and the expectations of customers, management must make efforts to ensure that quality control is a regular exercise. By focusing on local business environments and specific logistical challenges, this study will contribute to understanding how SMEs in Nigeria can enhance supply chain performance. The research will also offer practical insights for business owners, policymakers, and supply chain professionals seeking to improve logistics efficiency and achieve sustainable growth.

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CONFLICT OF INTEREST

None.

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Ефективність управління ланцюгами поставок та логістика серед окремих малих і середніх підприємств у районі місцевого самоврядування Сагаму, штат Огун, Нігерія

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Анотація. Малі та середні підприємства в Нігерії починають усвідомлювати важливість управління ланцюгами поставок для економічного зростання, але вони все ще відстають у розумінні інтегрованих аспектів ланцюгів поставок, які спричиняють значні зміни в бізнес-процесах і дають позитивні результати щодо покращення якості послуг, ефективності та скорочення витрат. Метою цього дослідження було з'ясувати, як ефективність управління ланцюгами поставок та логістика пов'язані з конкретними малими та середніми підприємствами в штаті Огун, Нігерія. Для цього була застосована методологія описового опитування. Для збору первинних даних було використано систематизовану анкету. Для аналізу зібраних даних були використані як описова, так і інференційна статистика. Дані були описані та узагальнені за допомогою описового аналізу. Вплив незалежної змінної на логістику оцінювався за допомогою дисперсійного аналізу. Стратегія та гнучкість ланцюга поставок були використані для оцінки ефективності управління ланцюгом поставок. Результати показують, що логістика, як і передбачала перша гіпотеза, має значний вплив на гнучкість ланцюга поставок. Вони також демонструють, що логістика, як і передбачалося другою гіпотезою, має значний вплив на стратегію ланцюга поставок. Згідно з висновками дослідження, оцінка ефективності діяльності має вирішальне значення для бізнесу, щоб оцінити, наскільки добре він досягає своїх стратегічних цілей, особливо щодо ланцюгів поставок і логістичних операцій. Для того, щоб отримати конкурентну перевагу та підвищити ефективність бізнесу, дослідження запропонувало, серед іншого, щоб малі та середні підприємства використовували гнучкість ланцюгів поставок та вносили гнучкі, адаптовані зміни відповідно до вимог ринку. Результати дослідження допоможуть виробникам, дослідникам, науковцям, політикам, студентам та всім, хто цікавиться операціями та управлінням виробництвом, краще зрозуміти ефективність комплексних показників ефективності управління ланцюгами поставок та логістикою

Ключові слова: ланцюг розподілу; гнучкість; стратегія; ефективність бізнесу; конкурентоспроможність