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**CRITICALLY EVALUATING THE ROLE AND APPLICATION
OF SUPPLY CHAIN PERFORMANCE MEASUREMENT
SYSTEM**

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Introduction

Supply chain performance is intensely integrated into the supply chain management for determining the degree of adequacy possible to manage throughout the supply chain. Supply chain performance is conceptualised as a set of activities including product availability, punctual delivery and imperative inventory management that enables an organisation to easily meet the needs and demands of consumers. However, performing supply chain management is identified to be critical to some extent since some of the top global companies such as Tesla, Kellogg's, Nike and more have gone through a phase of supply chain disruptions during the recent global pandemic of Covid-19. Hence, the central idea of this study is to critically investigate the role and the implementation of supply chain performance measurement systems in the context of contemporary business environments. In essence, supply chain performance will be assessed in the following section based on the importance and the issues pertinent to it. Moreover, the concept of supply chain performance measuring system will be underpinned in this study following the framework of relevant models such as Supply chain Operations Reference (SCOR) model.

Discussion

Supply chain performance and pertinent issues

Each stage of the supply chain is critically dynamic to the ultimate success of modern businesses and thus, performing an effective supply chain management is highly crucial for maintaining uninterrupted business operation in such a competitive business environment. As per the statement of Gupta et al. (2021), supply chain performance is considered to be an extent to which each stage of the business supply chain is able to maintain efficacy throughout the process of optimising costs, decreasing ineptitude, production speed enhancement and customer need fulfillment. It is worth mentioning that seamless and receptive supply chain management performance is likely to be determined on the basis of proactive supply chain activities including stock availability, punctual delivery, production lead times and order accuracy.

The implications of supply chain performance is not limited to internal boundaries of an organisation, rather sales, finance, employee and customer satisfaction are the aspects that have

come under the influence of supply chain performance. Some of the salient implications are as mentioned in the following;

Short and long term goals are affected

As per the statement of Gawankar, Gunasekaran & Kamble (2020), the standard of supply chain performance carries out an explicit opportunity for companies to accomplish the ultimate organisational goals, regardless of long term and short term. In particular, it can be said that the goal of increasing sales to a higher percentage can be restrained by the sluggish fulfillment rate as a result of inflated volume of monthly orders. Meanwhile the performance metrics of supply chain is breached since the scope of failure in on-time delivery took place. In this context, it can be said that a better planning of supply chain management relies on the data that are gathered from the record of past and recent performance in order to track the specific key performance indicators (KPIs).

Enhanced financial performance

Constant measurement of supply chain performance is impeccable for contributing to the development of lean supply chain management. As per the statement of Siegel et al. (2019), lean approach to the supply chain management is advantageous to the notable enhancement of financial performance of a company since this approach shares its active participation in reducing waste, lowering the costs of inventory, ensuring quality production. This is not merely an effective means of instigating improvements, yet also the way of eliminating all procedural inefficiencies of the supply chain and maintaining the optimised lead times and expenses.

However, maintaining an optimised performance standard in the supply chain management is quite a challenging project. As per the statement of Lee et al. (2022), poor availability of raw materials, changed consumer behaviour, economic fluctuations, climate change and more are the powerful forces responsible for giving rise to the challenging circumstances in the course of supply chain management. In 2020, the sudden hit of the recent global pandemic Covid-19 is widely criticised for damaging the supply chain performance and creating a toughest situation for many of the business organisations in terms of survival and competition. For instance, Nike is one of the most eminent sports brands that has also undergone the phase of ruined distribution and logistics operations. As per the statement of Silver (2021), the annual report of the July month carries out the testimony of a drastic drop of the tax excluding net income by 40%, which is estimated by 2.9 billion USD in 2020, as compared to the previous year. In fact, during the pandemic, Nike was

forced to declare the closure of its stores in the China Market and then in other countries on the globe which results in increasing the inventory to \$7.4 billion, a 31% hike in comparison with \$5.6 billion in 2019.

Supply chain performance measurement

Since it is already understood that the majority of business operational success highly rely on the organisational supply chain performance, conducting an accurate measurement is highly required for Nike in terms of ensuring the occurrence of a constantly uninterrupted supply chain performance improvement. As per the statement of Frederico et al. (2021), delivering insightful information to the organisations for facilitating the decision-making process is identified to be the central idea of conducting performance measurement which apparently enables companies to easily satisfy the market needs and demands as well as the maneuver of their strategic goals. The significance of measuring the performance level of supply chain management of Nike lies in the delivery of comprehensive understanding about the means that helps the companies to effectively use essential resources to produce an item that can easily reach the higher degree of customer satisfaction. This perspective clearly declares that the performance measurement of the supply chain stands for assessing the degree of efficiency and effectiveness of organisational resources, processes and structures of the entire supply chain. In this context, the application of the Supply chain Operational Reference (SCOR) model is found to be irreplaceable to underpin the ways of accurate measurement of supply chain performance.

Theoretical underpinnings

Concept

The SCOR model is acknowledged as a supply chain performance measuring framework that enables companies to identify and communicate with the decisions so that the growth opportunities can be explicit along with the improved supply chain management amongst the company, the suppliers and the end-users. As per the statement of Chehbi-Gamoura et al. (2020), this model is an articulation of standardised methods of assessing the level of efficiency and effectiveness of supply chain performance to help the companies identify the specific areas necessitate to be improved. Moreover, this model includes six dynamic components namely planning, sourcing,

making, delivering, returning and enabling and those revolve into a circular process starting with the suppliers and ending with the customers.

Application

Planning

This model indicates the importance of planning between the supply and demand in the very first step. As per the statement of Ricardianto et al. (2022), this stage engages the companies into balancing the symmetry between the supply of resources and the demand for end products in order to meet the final goal and also developing a robust communication in the due course of the supply chain management. In fact, Nike is allowed to be involved in maintaining the supply chain in line with its complete financial plan and building business rules to gauge and enhance the efficacy of the supply chain.

Sourcing

The sourcing component encourages Nike to actively participate in obtaining raw materials and sourcing infrastructure. As per the statement of Ayyildiz & Taskin Gumus (2021), this component is vital for assisting companies with the guidance of managing inventory, networks, supplier agreements and performance.

Making

This component stands for manufacturing and production. Understanding this component, Nike is able to be engaged in several production activities which includes packaging, staging and revealing products.

Delivering

As per the statement of Alshawabkeh et al. (2022), the component of the delivery stands in favour of supervising, warehousing, distributing products through transportations. In this stage, Nike is allowed to receive orders from customers' end which further requires the formulation of an invoice for ensuring successful delivery of products to the right end users.

Returning

Monitoring the supply chain and acquiring items are both part of the return process. In this stage, Nike is required to be prepared for receiving returned items as a result of defective items or inadequate packaging from the end of customers in order to ensure the offering of satisfactory customer services.

Enabling

The fourth component of this framework enables companies like Nike to deal with the procedures involved in controlling supply chain, legislative compliance and risk mitigation.

Critical review

This model is seen to be widely used by various companies in the time of measuring their performance of supply chain management since it shares a range of beneficial effects to this activity. As per the statement of Huang et al. (2021), SCOR model provides adequate flexibility to the companies in conducting comparative analysis in order to improve their performance in supply chain management, overall business operations and reducing expenses. Therefore, this model opens a range of opportunities for Nike to measure their performance standard with the industry leaders in order to adopt their best practices to ensure soaring success in upcoming days. However, Abbaspour (2019) argued that the complexity, inadequate flexibility and limited opportunities are the major drawbacks that a company can face during the application of this model in measuring the supply chain performance.

Implementation of performance measuring system (PMS) into supply chain management

Considering performance measurement critical to the performance enhancement of a company, implementing a robust system is mandated in the modern era. As per the statement of Moons, Waeyenbergh & Pintelon (2019), the implementation of a performance measuring system empowers a company with an enhanced ability of making strategic planning which the organisations are allowed to link with its operational management in order to acquire essential information for supervising, controlling, assessing the operation management. In the case of Nike, it can be said that the application of PMS maintains an appropriate alignment amongst the organisational goals, vision and strategic planning. Under the influence of PMS, Nike is not merely able to revamp its performance pertinent to the supply chain management, yet it becomes successful in maintaining the overall improved standard throughout the entire functions and performance of supply chain management.

However, there are some challenges identified to be associated with the implementation of PMS into supply chain management to hinder the scope of business operational success. As per the statement of Cousins et al. (2019), shortage of skilled professionals, lack of ICT supportive infrastructure, adoption of non-systematic approach to customer requirement measurement are the factors deliberately creating barriers for modern companies against a successful implementation

of PMS. In that case, companies are required to identify the ground of measurement, setting holistic targets, adopting suitable measurements and standardising the measures to improve the application of dynamic PMS into the supply chain management process.

Conclusion

² In conclusion, it can be said that supply chain performance beholds manifold contribution to the overall success of modern business organisations in such a competitive business marketplaces. This concerned aspect helps organisations to successfully accomplish their long term and short term goals as well as revamping financial performance in order to avoid the risk of economic loss. However, Covid-19 has massively affected the supply chain performance of many top-class global companies and Nike ⁹ is one of the most eminent ones. Therefore, this study provides a good understanding about the importance of measuring the performance standard of supply chain management since it provides an opportunity to the companies like Nike to identify the weak areas and ameliorate them accordingly. Nevertheless, the SCOR model is assessed to strengthen the concept of applying a performance measuring system for improving the degree of relevant performance.

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