
AN OVERVIEW ON SUPPLY CHAIN MANAGEMENT INTEGRATION AND IMPLEMENTATION

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ABSTRACT

From a strategic standpoint, the aim of this study is to examine a sample of the material related to the integration and execution of supply chain management techniques. Strategic cooperation is seen as a critical competitive advantages in the 'collaborative paradigm' of supply chain management. Collaboration is even more important when supply chains are tasked with guaranteeing economic, environmental, and social performance throughout the course of a product's whole life cycle. Because they are socially complex, causally ambiguous, and historically developed, inter-firm resources and skills developing through supply-chain-wide cooperation are prone to become sources of persistent inter-firm competitive edge. Supply chain is examined as a strategic issue for trade partners, as well as variables affecting the amount of planning needed. Third, this sub-group deals with variables that are essential for effective implementation, as well as problems that are unique to inter- and intra-organizational components of supply chain projects. The strategic aspect of taking a supply chain-wide approach offers substantial potential benefits while also requiring trade partners to think and act competitively. This is easier than it sounds inside a single company, much less among a varied and scattered collection of trade partners.

KEYWORDS: *Supply Chain Management, Integration, Management Strategy, Management, Strategies.*

1. INTRODUCTION

The incorporation of supply chain management has sparked a lot of discussion and controversy. Internal processes grow intertwined and transcend conventional company boundaries as companies strive to establish partnerships and more effective information connections with trade partners. Physical logistics are becoming increasingly reliant on information technology, which may also be used to allow new cooperative arrangements(1). Firms must now manage an extended business as a network of processes, connections, and technology that create interdependence and a shared destiny. For participating businesses, the true strategic character of supply chain management becomes evident, with effective implementation being a source of competitive advantage. The goal of this literature study is to collect and analyze information on supply chain management techniques' integration and application. As a result, it's divided into the following sections: Integration of the supply chain(2). This section addresses problems related to cross-organizational integration of key processes via better communication, partnerships, alliances, and collaboration. It also involves the use of modern technology to enhance information flows and coordinate physical products movements between trade partners(3). This very same producer may struggle to function in this climate at the lower end of the chain if marketing intermediaries are unable to react due to the physical logistic or data - flow problems. In this respect, developing strategies for competing on the basis of agility is becoming indeed a strategy for entire supply

chain management(4). Planning and strategy. Trading partners should consider supply chain management as a strategic issue, as well as issues related to the amount of planning needed. Issues with implementation. This sub-group covers essential factors for effective implementation as well as problems related to inter- and intra-organizational elements of supply chain projects(5).

1.1 Analytical framework:

It's impossible to separate or evaluate the strategic positioning of businesses from the integration of supply chain activities via investment in cooperative arrangements and technology(6). Good supply chain integration requires effective execution, and implementation that is not guided by strategy will provide little concrete value for the parties involved at best, and at worst, will be counterproductive and lose competitive advantage(7). As a result, the three components of this research are intertwined and interrelated, and a review of the literature in any of the three domains may provide light on problems that are relevant to one or both of the others(8).

1.2 Integration of the supply chain in general:

Supply chain management is defined as "the act of coordinating, monitoring, and regulating operations to remove communication barriers and reduce redundancies." Clancy defines supply chain integration as "attempting to elevate the linkages within each component of the chain, (to facilitate) better decisions, and getting all the pieces of the sequence to interact in a more efficient way, [and thus] creating supply chain visibility identifying bottlenecks(9)." Cooperation, collaboration, information sharing, trust, partnerships, network hub, and a fundamental change away from managing separate functional operations to managing integrated chains of activities are all characteristics of integration(10). The notion of integration has evolved over time to one in which the supply chain functions as a corporate entity, spans a virtual business without reference to conventional company borders, and is directly driven by consumer demand through electronic storefront access. According to him, this tendency would cause significant changes in many businesses, ultimately leading to more usage of outsourced services(11). He also thinks that concentrating on bringing changes inside the business first, and then expanding the process to include suppliers and customers, is the key to successful implementation(12). Cost and cycle time savings are likely to be the main advantages. the importance of aligning goals across functions through partnership and coordination, citing the historically poor alignment of goals between production and selling functions as an example of opportunities for better alignment as a precondition for improving supply chain management practices(13).

1.3 Information flows:

The use of information technology to the integration of supply chain operations has the effect of lowering long - term complications. Detail and dynamic complexity are the two kinds of complexity. When there are a lot of variables to handle, detail complexity arises. Where cause and effect are separated and difficult to connect in both time and place, dynamic complexity exists: circumstances where cause and effect are subtle, and the consequences of interventions across time are not apparent(14). Traditional techniques of predicting, planning, and analysis are ill-equipped to cope with dynamic complexity(15). The "bullwhip effect" is an example of a common supply chain management consequence coming from dynamically complicated conditions; one of the activities aggravating this demand uncertainty is "ahead buying," or acquiring larger-than-needed quantities to take advantage of reduced unit costs(16). According to him, this technique may account for up to 50% of distribution inventory. The bullwhip effect, according to Levary (2000), has two outcomes: an increase in cost to the end user or a reduction in profit for the different parts of the chain. Although the concept of an interconnected supply chain is not new, it has only lately been practical as businesses have access to reliable, fast, and cheap data. They also point out that knowledge is the only component of the supply chain that has become cheaper over time(17). The growing usage of e-mail for communication both inside businesses and between

trade partners is an illustration of this trend. According to current Australian statistics, e-mail is utilized by over 40% of small businesses and over 80% of medium-sized enterprises to communicate with customers and suppliers(18).

1.4 Physical logistics:

Reduced product life-cycles; decreasing levels of standardization of products and requirements for personalization; clients requiring shortened shipment lead - time; higher incidence of contest due to globalization and the lowering of import tariffs; and rising amounts of vibrancy (rate of change) are all contributing to the emphasis on physical inventory management(19). Cycle durations in physical logistics are mainly a function of distance, uncertainty, and intricacy, and inventory levels in supply chains are closely related to cycle times. In terms of actual products movement, an integrated supply chain allows businesses to compete on speed and flexibility while maintaining low inventory levels across the chain. Rather of being stored at different locations throughout the chain, items will be moved between them. Companies who have been able to achieve significant reductions in cycle times have been able to convert this into real economic advantages, according to research(20).

2. REVIEW OF LITERATURE

Tiwari et al. discussed between 2010 and 2016, this article examines big data analytics research and implementation in supply chain management, and offers insights to industries. The quantity of data generated by end-to-end supply chain management techniques has grown dramatically in recent years. Furthermore, in today's competitive climate, supply chain experts are having difficulty managing large amounts of data. They're looking at new methods to see how data is created, collected, structured, and analyzed in order to provide useful insights to industry. Big Data analytics is one of the most effective methods for assisting them in solving their issue. We decided to write a study on the importance/impact of big data analytics and its use in supply chain management after learning about the potential advantages of big data analytics in the supply chain. First, we'll look at big data analytics on its own, and then we'll look at how big data analytics fits into supply chain management (supply chain analytics). The latest research and applications are also discussed. Finally, we discuss the implications for various sectors. This paper's observations and insights may serve as a guide for academics and practitioners in applying big data analytics in many areas of supply chain management(21).

Carter did some research on The authors conduct a huge literature search and use abstract theory building to introduce the idea of sustainable development to the field of supply chain management and demonstrate the relationships between environmental, social, and market strength within the supply chain domain. Layout - A framework and propositions defining a middle theory of sustainable supply chain management are developed via conceptual theory building (SSCM). Findings - The authors introduce the concept of sustainable development to the logistics literature, defining it as "the implementation of environmental, social, and economic criteria that allow an organization to achieve long-term economic viability." They also place sustainability within the broader SSCM framework. They then provide a framework for SSCM and research proposals based on resource dependency theory, transaction cost economics, population ecology, and the firm's resource-based perspective. The authors wrap up by addressing management ramifications and future research possibilities, including the framework's propositions being further developed and tested. Originality/value - This paper presents a review of the mid to long term, introduces sustainability to the field of supply chain management, and broadens the conceptual model of sustainability beyond the triple bottom line to include key supporting facets that are posited as prerequisites to implementing SSCM practices. The application of conceptual theory building to generate theoretically grounded propositions transforms the notion of sustainability from an a-

theoretical approach to a new theory in supply chain. Green Group Publications Ltd is a publishing house based in the United Kingdom(22).

Pérez-Salazar did research on the Purpose: The goal of this article is to look at the current status of supply chain management knowledge management research from three perspectives: approach based, supply chain area, and knowledge management processes. Design/methodology/approach: To do this, a systematic study part of the qualitative text analysis is performed from 2000 to 2014. Findings: Knowledge management may be seen as a lever for: I supply chain integration; (ii) improving intra and inter-relationships throughout the supply chain; (iii) supply chain alignment; and (iv) reinforcing knowledge transfer in product creation, according to the findings. Reverse logistics, inventory management, forecasting/demand planning, outsourcing, and risk management are all aspects of supply chain management that have just been scratched the surface. Furthermore, knowledge transfer is investigated in the majority of papers, mostly via case studies and surveys; mathematical models and simulation methods are only utilized in a few articles. The findings are also discussed in terms of theoretical views and management problems. Limits and implications of the study: Our study's limitations include the search period (2000-2014), search database selection (Web of Science and SCOPUS), and linguistic selection (English). Implications in practice: The display of KM procedures in a SC environment may aid professionals and executives interested in adopting KM efforts in replicating the methods in order to improve the chances of KM adoption success. Originality/value: Because there are no state-of-knowledge studies that describe a systematic literature review method, the systematic review will contribute to a better understanding of the current state of research in knowledge management theory, with an emphasis on the supply chain(23).

Asgari highlighted how, as supply chains grow more global and complicated, companies must better plan, manage, and enhance them. To do so, they must learn from other companies and industries, anticipate issues before they arise, and comprehend future difficulties. Despite the fact that over 40,000 papers and books on supply chain management have been written since the word was established in 1982, a comprehensive grasp of emerging trends, existing knowledge gaps, and possible future development areas is just now developing. According to our bibliometric study of the current literature, we still need to learn more about how to manage supply chain security, insourcing, sustainability, competitiveness, risk and disruption, and human behavior. There is also a scarcity of research in the healthcare, catastrophe, and humanitarian supply chains, as well as in small and medium businesses. Bibliometric; supply chain management; research; surveys(24).

2. DISCUSSION

All activities that convert raw materials into finished products are included in the centralized control of the flow of goods and services. Companies can reduce costs and deliver goods to customers quicker by controlling the supply chain. Plan, Get, Comprise, Ship, and Refund are the 5 phases that make up the top-level of this paradigm, which are also known as Supply Chain Management components. Let's take a closer look at each component: Plan: Controlling inventories and production operations requires meticulous planning. The primary goal of supply chain management is to guarantee that product flow is seamless, efficient, and adaptable across the supply chain. Supply chain management lowers manufacturing costs by ensuring that raw materials are delivered on time to assembly plants. Supply networks are becoming more complicated, which just adds to the problem. It also helps to emphasize the fact that communication has surpassed all others as the most critical component of your supply chain.

3. CONCLUSION

The adoption of supply chain management technology and methods is likely to result in substantial inter - and intra transformation. This will be most visible in the field of process re-design, as well as the creation of completely new processes in many instances. Choosing the appropriate areas of

emphasis and understanding the consequences of the implementation for all trade partners will be critical factors in deciding the success (or failure) of any implementation. Because of the challenges and complexity involved in implementation, frameworks (such as SCOR) have been developed to aid the process. It's worth noting that research indicates that these frameworks' acceptance and applicability are at best limited. As a result, the research indicates that a gradual rather than a "big bang" approach to implementation is preferable. The necessity of adopting a holistic approach and the systemic nature of interactions between participants seems to be a recurring topic in the research in this field. The acknowledgment of all participants in a supply network's interdependence seems to be a necessary precondition for successful integration. In this way, companies using integrated supply chain management systems might be viewed as formalizing methods to better manage this interdependence and exploit it for mutual benefit. Simultaneously, it is clear that the need to adopt such a comprehensive and systemic perspective of the supply chain serves as a barrier to more widespread deployment. On the one hand, the strategic aspect of adopting a supply chain-wide view offers considerable potential value, but it also needs trade partners to think and act strategically.

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