A Review on Effect of Supply Chain Management Practices on Retailer's Satisfaction

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Abstract

The objective of this paper is to investigate the role of supply chain management in pharmaceutical industry with respect to retailer satisfaction. Retailer satisfaction ultimately attributes to the satisfaction of end users who are termed as customers. Supply chain management has become an inevitable part of the distribution network due to cut throat competition prevalent in the pharmaceutical industry. Keeping this point in view the paper mainly focuses on the factors to improve supply chain management such as innovating new products, reducing inventory hold time for the retailers, ensuring constant supply of high quality medicines, better price negotiation and many such factors which ultimately results in retailer satisfaction. Retailer satisfaction becomes most prominent when it comes to increasing profits for the pharmaceutical company and the middlemen who are ensuring the process of supply chain management. This review study is made to basically understand and improve the factors which ensure a smooth functioning of supply chain management for the retailers.

Introduction

Indian pharmaceutical sector is the largest provider of generic drugs globally. Indian pharmaceutical sector industry supplies over 50 per cent of global demand for

various vaccines, 40 per cent of generic demand in the US and 25 per cent of all medicine in UK.

India enjoys an important position in the global pharmaceuticals sector. The country also has a large pool of scientists and engineers who have the potential to steer the industry ahead to an even higher level. Presently over 80 per cent of the antiretroviral drugs used globally to combat AIDS (Acquired Immune Deficiency Syndrome) are supplied by Indian pharmaceutical firms.

Supply chain management (SCM) is controlling the flow of goods and services and involves the active streamlining of a business's supply-side activities. This is done to gain a competitive advantage in the marketplace and maximize the value to a retailer.

It's based on the idea that nearly every product that ends up in consumer's hands is the result of the efforts of various organizations that make up a supply chain. This covers everything from production to product development to the information systems needed to direct these processes.

Some of the recent developments/investments in the Indian pharmaceutical sector are the significance of pharmaceutical industry With new and improved medicinal drugs hitting the market on a continuous basis, the pharmaceutical_industry is becoming extremely competitive.

Supply chain management, also known as SCM plays a crucial role in the retail cycle. It facilitates companies to maintain a long-term fruitful association with retailers and provide them the right product. An efficient supply chain ensures a smooth transition of a product in the stages ranging from manufacturing to the point-of-sale. Slight distortion in the SCM can impact the retailer's satisfaction level and increase the risk of losses for companies.

An effective supply chain strategy helps companies to reduce operating costs in numerous ways. It reduces time to market and minimizes the inventory holding cost. Improving supply chain management also helps companies to meet their sourcing needs and timely deliver materials to production or assembly plants.

Rising competition in the retail market makes it imperative for companies to improve retailer satisfaction levels more efficiently than their competitors. With effective SCM, companies can deliver the products from the point of production to the point of purchase with minimum cost and time. They can analyze supply chain strategies of their peers to adopt better measures to reach their retailers faster.

Also With numerous options available in the market, retailers expect their demands to be met on time. This creates a challenge for businesses to retain their retailers. Companies having good supply chains can ensure the delivery of products when their retailers need it.

Pharmacists should be more involved in all stages of medicines supply to improve drugs availability because they have the knowledge of the stability parameters of particular drugs and the importance of the supply and distribution of quality medicine.

For example, the pharmacists often assume leadership roles, and so courses in leadership and management should be provided in addition to courses in logistics, Pharma Cold Chain Management, and Serialization as per the Good Storage & Distribution Practice guidelines and Drug Supply Chain Security Act.

Roles in the drugs supply chain in high, middle, and low-income countries is rising due to the implication of Good Storage and Distribution Practices Guidelines due to rise of export of generic drugs, specialty drugs, biologics and biosimilars. At present personnel from other industries have taken on roles in pharmaceutical storage and

distribution at the point of dealing with medicine at the moment, but to comply with the global regulatory norms the responsibility of Pharmacists is rising globally.

The pharmaceutical supply chain is often a hidden element within healthcare systems. There is an elaborate pathway between medicines leaving the manufacturer till being dispensed to the patient. The Middle men playing a vital role in ensuring constant supply of high quality medicines to the medical front line. Inefficient or expensive distribution increases the final price to patient, reducing volume sales and hurting family finances in the largely out-of-pocket private market for medicines.

Pharmaceutical supply chains are one of the most complicated of logistics processes. Not only do they rely upon infallible temperature control and meeting stringent border regulations across regions, but logistics providers also have to guarantee the integrity and security of the products throughout the process. A single loose link in the chain could mean that costly and essential pharmaceuticals and Biological products are left in an unusable or even potentially dangerous state, with the spin off problems associated with lack of adequate vital medicinal stocks or even legal procedures.

To strengthen supply chain management in delivering quality medicine, the government should establish a structured supply chain management system with responsible Pharmacists, ensuring to monitor the entire distribution system from Manufacturer till the end user.

At the most basic level, there are five-steps in the pharmaceutical supply chain to ensure that drug inventory is readily available for distribution to providers and patients.

Those five steps are:

1. Pharmaceuticals originate in manufacturing sites

2. Are transferred to wholesale distributors

3. Stocked at retails, mail-order, and other types of pharmacies

4. Subject to price negotiations and processed through quality and utilization management screens by pharmacy benefit management companies

5. Dispensed by pharmacies and ultimately delivered to and taken by patients through.

There are many variations on this basic structure of the pharmaceutical supply chain, researchers note, largely due to the constantly evolving players in the supply chain.

The vital players of the pharmaceutical supply chain network allow it to run smoothly and efficiently. Those players include manufacturers, wholesale distributors and retailers.

Pharmacies are the final step before drugs reach the patient, and arguably the most vital step because they serve as the information drug manufacturers, and wholesale distributors.

Pharmacies purchase drugs from wholesalers or directly from manufacturers. After purchasing products, pharmacies must maintain an stock of drug products and provide information to consumers about the safe and effective use of prescription drugs.

The pharmaceutical supply chain greatly affects drug costs. Consumers face higher out-of-pocket expenses and health plans deal with higher drug spends.

The Pharmaceutical Research and Manufacturers of America (PhRMA) found that the complexity and number of players involved in the drug supply chain may one of the main reasons prescription drug costs are making headlines.

Prescription drugs greatly depend on several negotiations between wholesalers, pharmacies, pharmacy benefit managers, and insurers, according to the report. The authors noted that rebates have increased over the past few years, but out-of-pocket costs for patients are soaring.

The pharmaceutical supply chain poses risks and challenges to both providers and consumers. But in the context of a health-conscious society, management of pharmaceutical supply chains presents complexities because it involves life-saving medicines that are vital to patients.

Although the pharmaceutical supply chain demonstrates success, it also faces many challenges as well with top pharmaceutical companies.

All businesses with an efficient supply chain follow a few step process, including demand management, inventory management and distribution, secondary production planning and scheduling, and primary manufacturing.

Literature Review

Betcheva, Erhun, and Jiang [2020] The lessons learned over decades of supply chain management provide an opportunity for stakeholders in complex systems, such as healthcare, to understand, evaluate, and improve their complicated and often inefficient ecosystems. Academic/practical relevance. The complexity in managing healthcare supply chains offers opportunities for important and impactful research avenues in key supply chain management areas such as coordination and integration (e.g., new care models), mass customization (e.g., the rise in precision medicine), and incentives (e.g., emerging reimbursement schemes), which might, in turn, provide insights relevant to traditional supply chains.

We also put forward new perspectives for practice and possible research directions for the supply chain management community. Methodology: We provide a primer

on supply chain thinking in healthcare, with a focus on healthcare delivery, by following a framework that is retailer focused, systems based, and strategically orientated and that simultaneously considers clinical, operational, and financial dimensions. Our goal is to offer an understanding of how concepts and strategies in supply chain management can be applied and tailored to healthcare by considering the sector's unique challenges and opportunities. Results: After identifying key healthcare stakeholders and their interactions, we discuss the main challenges facing healthcare services froma supply chain perspective and provide examples of how various supply chain strategies are being and can be used in healthcare. Managerial implications. By using supply chain thinking, healthcare organizations can decrease costs and improve the quality of care by uncovering, quantifying, and addressing inefficiencies.

Karen Moons, Geert Waeyenbergh, Liliane Pintelon [2018] The patient care processes are supported by a range of operational activities including inventory management and distribution of supplies to point-of-care locations. Healthcare logistics encompasses the process of handling physical goods (e.g. pharmaceuticals, surgical medical products, medical equipment, sterile items, etc.) and the associated information flows, from the reception of the goods within a hospital to their delivery at patient care locations. The medical supply costs constitute the second largest expenditure in hospitals or after personnel costs. A high-performing supply chain may realize improved outcomes (e.g. safe and quality patient service) and greater efficiency. Logistics managers need to identify opportunities to improve the logistics processes in order to lower costs and to improve patient care quality. However, in order to improve the logistics processes, you must understand how the healthcare supply chain is currently performing. Measuring the performance of the supply chain is fundamental to identify and address deficiencies in the logistics activities, and it serves as a good input for managerial decision-making. The purpose of this article is to present existing research on performance measurement at the internal

hospital or supply chain (e.g. inventory management, distribution activities ,retailers), and more specifically in the right condition, at the lowest cost possible.

Bhavana Mathur, Sumit Gupta, Makhan Lal Meena, G.S. Dangayach [2017] The purpose of this study is to examine the causal linkages among supply chain practices, effectiveness of supply chain performance (SCP) and organizational performance (OP) in Indian healthcare industries. The organization of this paper is as follows: the next section presents various connotations given by various researchers; about SCM, frameworks of SCM then a literature classification scheme is explained and a research agenda is suggested after identifying the gaps and finally develop a conceptual framework to show the effect of supply chain practices (SC) on pharmaceutical products.

Sasan T. Khorasani, Jennifer Cross, Omid Maghazei [2020] by applying a systematic literature review, this paper aims to identify the major pharmaceutical products problem domains (i.e. target areas) for lean supply chain management (LSCM) and to provide a list of the most common techniques for implementing LSCM in healthcare. Moreover, this study intends to investigate various contingency factors that may have influenced the selection of LSCM target areas or the application of LSCM techniques by healthcare organizations.

As the Operations Management (OM) and Supply Chain Management (SCM) field has evolved, a greater emphasis on services has emerged. The healthcare industry represents an important sector within services, however, little is known about the current state of research into healthcare OM and SCM. The purpose of this research is to conduct a structured analysis of OM and SCM studies conducted in healthcare and inform three key questions: 1) what are the primary topics or themes in the extant healthcare OM and SCM literature, 2) what are the prevalent methodological approaches employed in healthcare OM and SCM, and 3) what does the future of OM and SCM research in healthcare hold?

David Dobrzykowski, Vafa Saboori Deilami, Paul Hong, Seungchul Kim [2013] The questions are informed via a structured analysis of healthcare papers published between 1982 and 2011 in seven esteemed scholarly journal outlets in the OM and SCM field – Decision Sciences Journal, International Journal of Operations and Production Management, International Journal of Production Economics, Journal of Operations Management, Journal of Supply Chain Management; Production and Operations Management, and Supply Chain Management: An International Journal. Through screening 9,979 papers, and carefully analyzing the literature, this study makes at least four important contributions by: 1) using quantitative methods to identify the current investigatory themes, 2) quantifying methodological trends, 3) providing a qualitative narrative description of the top research themes, and 4) qualitatively describing directions for future research.

Joseph Mathew, Joshin John and Dr. Sushil Kumar This paper focuses on the new trends to optimize costs in healthcare supply chain operations that include virtual centralization of supply chains, supply utilization management practices, use of RFID (Radio Frequency Identification) technologies, use of analytics, streamlining workflow etc. The application of these techniques can provide affordable healthcare solutions in developing countries.

Laquanda Leaven, Kamal Ahmmad, Demesha Peebles [2017] Recently, the pharmaceutical industry has started using inventory management applications to achieve efficiency and effectiveness in its supply chains. There is a rapid growth in the demand of drugs and diagnostic systems within the healthcare industry. The biggest challenge for health care supply chains is to manage inventory efficiently and keep up the satisfactory service level at the same time.

In order to meet the increased demand of healthcare products, healthcare supply chain professionals must find efficient and effective ways to improve and optimize inventory. Moreover, perishability and disposability of many medical products have

been major problems in healthcare supply chain management. The current managerial practices and conflicts among different stakeholders in health care supply chains are directly associated with the issue of inventory management.

This literature review will introduce various inventory management applications that are mainly focused on minimizing inventory costs and increasing overall efficiency in healthcare supply chains.

Throughout this literature review, the uses of simulation, new technologies to track healthcare products, new managerial practices, optimization, and information sharing techniques have been discussed extensively. This review of literature contributes to the research field through providing one of the first comprehensive studies to address effectively managing inventory items in healthcare supply chains.

Anthony D. Ross, Vaidyanathan Jayaraman [2009] Articles in the *Wall Street Journal* summarize the state of business practice in American hospitals by shedding light on the state of supply chain management practices and foci in today's health care supply chains. In health care, the single largest cost after labor is materials, and it has been documented that health care facilities can reduce the environmental impacts of the products and services they consume before regulatory problems arise or waste disposal costs increase by focusing on their upstream activities.

Health care systems around the country consume significant quantities and varieties of products within the health delivery processes.

Solving these environmental problems requires a much broader view involving collaborative efforts of professionals from different areas of health care to meet these challenges. The purchasing function bridges the gaps by providing a healthy dialogue on key environmental attributes within the health care supply chain. The concept of bundling new with refurbished products is gaining a lot of attention in the health care supply chain. This research describes a health care purchasing

problem for bundling new and refurbished products of the type facing a growing number of large health care providers, and then proposes a methodology for evaluating the complex tradeoffs involved in bundling decisions for refurbished health care products.

By exploiting some useful properties of the problem structure, our results provide buyers with useful insights for examining and selecting suppliers who are willing to offer bundles of new and refurbished products.

Gabriela Aline Borges and Guilherme Tortorella, Matteo Rossini and Alberto Portioli-Staudacher [2019] The purpose of this paper is to identify the lean production (LP) practices applied in healthcare supply chain and the existing barriers related to their implementation. Healthcare organizations are under constant pressure to reduce costs and wastes, while improving services and patient safety. Further, its supply chain usually presents great opportunities for improvement, both in terms of cost reduction and quality of care increase.

In this sense, the adaptation of LP practices and principles has been widely accepted in healthcare. However, studies show that most implementations fall far short from their goals because they are done in a fragmented way, and not from a system-wide perspective.

The findings show that there is a consensus on the potential of LP practices implementation in healthcare supply chain, but most studies still report such implementation restricted to specific unit or value stream within a hospital or .

Adem Goleç, Gulnara Karadeniz [2020] The performance analysis of healthcare supply chain management (SCM) has become extremely important as healthcare systems have begun to struggle to enhance operational efficiency and diminish costs. The aim of this study was to measure healthcare SCM in accordance with

Competency based operation evaluation. The study was organized as a hierarchical structure based on the main processes, sub-processes, and their operations of healthcare SCM. It is considerably difficult to quantify the competency of an operation.

Therefore, a fuzzy model was developed to measure healthcare SCM performance according to competency-based operation evaluation. The classic healthcare SCM performance measurement system uses investigational and statistical approaches. Investigational approaches focus on understanding the process specifications, which are comprised of talent requirements, efforts, dependability and work environments, and operations that are effective in the preliminary evaluation. Statistical approaches, on the other hand, use the data belonging to patients and medical products. That physical flow throughout SCM processes.

The contemporary healthcare SCM performance measurement system is a compound decision-making procedure that assigns the correct operations to the correct processes. In this system, a multi-hierarchical structure is used to solve the problems encountered in the decision-making process. Most of the studies in the literature have used systems involving investigational and statistical approaches.

E. Manavalan, K. Jayakrishna [2018] Supply Chain organizations in the present global environment operate in market that is increasingly complex and dynamic in nature. Sustainable supply chain becomes inevitable to meet the aggressive change in the retailer requirements.

Based on the reviews, it is revealed that manufacturing companies need to speed up in shifting the focus towards sustainability and make use of technology like 'Internet of Things' (IoT) to meet the organization's goal. The objective of this research paper is to review the various aspects of SCM, - Enterprise Resource Planning, IoT and Industry 4.0 and explore the potential opportunities available in IoT embedded

sustainable supply chain for Industry 4.0 transformation. In this review, a comprehensive study on various factors, that affects the sustainable supply chain were analyzed and the results recorded.

Based on the review, a framework for assessing the readiness of supply chain organization from various perspectives has been proposed to meet the requirements of the fourth Industrial Revolution. The conceptual framework model has been formulated from five important perspectives of supply chain management namely Business, Technology, Sustainable Development, Collaboration and Management Strategy. This study furnishes the criteria that can be assessed by companies to realize the readiness for industry 4.0 transformation.

Nomahaza Mahadi, Faiq Aziz, Zailin Zainal Ariffin, Siti Sarah Omar, Azizul Yadi Yaakob [2017] The focus of this study is to examine the importance and effectiveness of lean management and employee satisfaction towards retailer satisfaction. The simplified and standardization of processes lean management able to eliminate unnecessary workload and increases employee satisfaction that lead to resulting positive retailer satisfaction for organization. This study also designed to fulfill the previous research gap by analyze the capability of lean management and employee satisfaction towards establishing retailer satisfaction in healthcare industry. Based on previous literature review, this study derived two proposition which are lean management is positively related to retailer satisfaction and employee satisfaction is positively related to retailer's satisfaction.

Panchapakesan Padma, Chandrasekharan Rajendran and Prakash Sai Lokachari [2010] The purpose of this paper is to conceptualize hospital service quality into its component dimensions from the perspectives of patients and their attendants; and to analyze the relationship between service quality and retailer satisfaction in government and private hospitals in India. Patients and attendants treat the interpersonal aspect of care as the most important one, as they cannot fully evaluate

the technical quality of healthcare services. The study also revealed that the hospital and s service providers have to understand the needs of both patients and attendants in order to gather a holistic view of their services. The present study allows the hospital and administrators to benchmark their Hospitals and s with those of their competitors by comparing the mean values of the dimensions of service.

Factors affecting retailer satisfaction

Following are the important factors that could affect retailer satisfaction:

- ✓ Department wise capability of the supplier.
- ✓ Technological and engineering or re-engineering aspects of products and services.
- ✓ Type and quality of response provided by the supplier.
- ✓ Supplier's capability to commit on deadlines and how efficiently they are met.
- ✓ Retailer service provided by the supplier.
- ✓ Complaint management.
- ✓ Cost, quality, performance and efficiency of the product.
- ✓ Supplier's personal facets like etiquettes and friendliness.
- ✓ Supplier's ability to manage whole retailer life cycle.
- ✓ Compatible and hassle free functions and operations.

The above factors could be widely classified under two categories i.e. suppliers behavior and performance of product and services. The supplier's behavior mostly depends on the behavior of its senior subordinates, managers and internal employees. All the functional activities like retailer response, direct product and maintenance services, complaint management etc. are the factors that rely on how skillful and trained the internal and human resources of the supplier are. The second category is regarding all the products and services. This depends on the capability of supplier to how to nurture the products and service efficiently and how skilled the

employees are. It's all about how the skills are implemented to demonstrate engineering, re-engineering and technological aspects of the products and services. The quality and efficaciousness of the products is also an important factor that enables compatible and hassle free functions and operations. This bears to lower maintenance and higher life of the product which is highly admired by the retailers.

Conclusion

Retailer satisfaction is defined as a measurement that determines how products or services provided by a company meet retailer expectations. Retailer satisfaction is one of the most important indicators of consumer purchase intentions and loyalty. High-standard retailer service can win your clients' hearts and make you recognizable within your target group. Nowadays when social media play such an important role in making decisions it's crucial to keep an eye on the quality of retailer service you provide. If you don't care about retailers' satisfaction, don't expect them to care about your services or products.

Retailer satisfaction is the overall impression of retailer about the supplier and the products and services delivered by the supplier.

Supply chain analysis is a very useful management tool that helps to identify key activities which yields to the creation of superior product or service that is of high value to the retailer. The analysis helps to maximize profits by creating superior product or service for which the retailers are willing to pay a premium price that exceeds the cost of production. this study created this useful model through which work products are broken down into various activities, which allows the management to focus on the truly useful activities that creates value to the organization. The study chain analysis also adds to the competitive advantage strategy of the company, helping to determine the vision and set direction for future products and services. The analysis also validates the supporting activities, which

are often overlooked but are integral part to the value chain and value proposition of a company. However, as it is the case with most academic frameworks, the high level of complexities in today's business operations and the wide array of stakeholders involved make it difficult for a firm to obtain the right data in order to conduct an effective analysis. Moreover, the process in itself is highly time consuming, limiting its practicality in today's business operations.

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