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The Socio-Economic Growth Of Ayurvedic Pharmaceutical Industry In India.

Dr. Ritu Sharma^{1*}

^{1*}Asst. professor University of Delhi Email: senoritaritu@yahoo.com

In the world of commerce and trade, supply change management plays a pivotal role in managing logistics, inventory, order, shipment, and logistics of any particular business organization. Nevertheless, plays an important role in return management, which has been a spectacle for all the business organization across the globe. Due to the tremendous increase of innovation in the technological field, there has been an instigation pharma supply management. This software plays an effective role in inventory, logistics, shipment, order management. Nevertheless, these applications have also help to provide the wider solution to a particular organization in the context of Indian Ayurvedic Pharmaceutical Industries, it seems that supply chain management has a tremendous impact in process of business. Indian ayurvedic pharmaceutical industry has been growing at a significant rate over 15% whereby it is expected grow higher by 2020 (TOI). As ayurvedic medicines are considered to be a traditional form of medicines in India and there has been rising demand for these medicines.

Background of the Study:

The science has reached in a pinnacle height in the context of manufacturing medicines in the relevant era. Due to a rapid increase in modern knowledge on the chemicals and technology, the scientist is able to establish different medicines, which are effective in curing diseases in the human body. In this context, this country has an advantage of getting Ayurvedic treatment, which is considered the traditional method treatment. This method actually includes a compilation of different herbs, plants, seeds and so on, after compiling this it acts as a medicine (Christopher 2016). Therefore, these Ayurvedic medicines inherit significance in curing different diseases in the biological body of the human. Not only medicines but there are also some Ayurvedic products that have been launched in India to maintain different body the human physiology such as; skin, digestive system, hair, teeth etc.

There after relevant time in India, an Ayurvedic method of treatment and medicines are gaining importance imbibe valuable demand from the customers. By this context of increasing, developing and bringing Ayurvedic industry in the mainstream, there is an implementation of an effective Supply Chain Management Strategy (Wisner et al. 2014, p. 45). This SCM strategy will have an effective impact on delivering medical services and medicines to the users and help Ayurvedic Pharmaceutical Company to gain standard raw products from time to time. Furthermore, government strategies will have an impact in maintaining the effectivity of goods and services along with a quality of the medicines. Some key producers of Ayurvedic medicines and products are; Dabur, Zandu, and Baidyanath. Dabur is considered to the largest supplier of Ayurvedic medicine and considered a fourth largest manufacturer of FMCG. The Research Rational of the study has been that there has been a tremendous increase in demand of Ayurvedic medicines in India; therefore, growing companies need to boost up their business process to cater the demand from the consumers. Indian people consider this Ayurveda is good for health and safe compared to scientific chemical medicines and there are no side effects regarding these medicines. According to the report, Ayurvedic Industry in India are confronting some issues like; lack international treatment places, a crisis of manpower, lack of approval of health insurance and export of products in an international market that is reducing the sales rate in Ayurvedic industry. This is making it an issue in the industry (Monczka et al. 2015, p.24). Decreasing work force has reduced the employee productivity that has ultimately affected the quality of the products thereby making it an issue now.

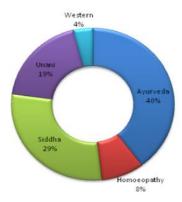


Figure 1: Increase in Ayurvedic Medicine Demand in India (Source: cii.in, 2018)

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The graph indicates that there has been increasing in demand for Ayurvedic medicine in compared to other medicines, but there the Ayurvedic Companies are failing to collate the growing demand. Therefore, following the argument of its demand and supply is considered a strategy, which will have an effective impact on these growing companies as well as the developed Ayurvedic companies in India. It is from this evidence that execution of Chain Management has been effective in Ayurvedic Industry in recent times. The impact of Management in supply is going to shed light on various areas of Ayurvedic Industry, such as; it increases the customer value and customer relationship management. Nevertheless, it has an impact on managing and tracking the availability of materials that are required to yield Ayurvedic products. SCM also has an effective impact on return management, as it inspects and tackles faulty and damaged products (Boonjing et al. 2015, p. 555). It has been mentioned above that there are some leading Ayurvedic Companies in the domestic market of India; therefore, the growing companies need to implement supply chain management for getting effective impact in their organizations.

Ayurveda and its Importance in India

This traditional country is known to be popular for its indigenous medicines such as naturopathy; homemade medicines made up of kitchen groceries and herbs fond in deep forests. Their histories are as old as pre-vedic to post-vedic times which has clearly mentioned in its scriptures and mythologies. The 'sanjeevani-booti' (life saving drug), happened to be found on the hills, perhaps which was bought by 'Hanuman' saved the brother of Lord Rama. Medical anthropology even traditionally called as Ayurvedic concept appeared and developed between 2500 and 500 BC in India (Subhose, Srinivas & Narayana, 2005). The epistemology of Ayurveda is the balance of all doshas-harmony between the chakras is called as 'science of life', the way it has balanced the diseases much before the advent of modern medicine. The term Ayurveda is a knowledge of life i.e. 'Ayur' and 'Veda'. With its due course and complacency of the human word the apex predators lost its metabolically balance due to restricted physical labour and ready-made food. Thereby the meaning of (dis)balance diluted its interpretations in the modern world. Although, Pandey, Rastogi and Rawat (2013) discusses have Ayurveda as to be also called the 'science of longevity' as its true meaning suggests the knowledge to repair the balance lost in the process. Consequently, results in a long healthy life for a human species on planet earth. The line of treatment offered is the procedural diagnosis of the body as per the combination of its air, water and fire elements present in varying degrees in every human body. Thereby offering a systematic range of diet, exercise, and diluting the excesses present in the body. To illustrate if body is acidic will affect in range of elements and diseases, whereas if it is filled with the tendency of excess water the dehydrating a bit by powders and practices, homemade ingredients available in traditional grocery stores. Nowadays can be found in organized traditional ayurvedic stores across the country. The entire child birth and rituals surrounding babies are managed by ayurvedic practices and oral tradition of the elders. However, Ayurvedic line of treatment is not some steroid or a 'magic bullet' to cure the ailments in a ziffy, rather requires self-discipline and consciousness of a mind and body. It is perhaps a journey to the past where longevity was the end-point from the keys fond in traditional medicines.

Therefore, in the past it was the most soundproof line of treatment provided by the 'vaidyas' trained in the 'gurukuls' or 'ashrams' by the gurus having to attain the knowledge of the sages or Gods themselves over the years by the strict penance and meditation. It is a science of life with a holistic approach to health and personalized medicine (Seemwal, et al 2015). This balances the bad karma with healthy body and mind developing an overall persona of a pure soul residing in a body. According to the World Health Organization, about 70–80% of the world populations rely on nonconventional medicines mainly of herbal sources in their healthcare (Jacqui 2013). The increasing popularity can be observed in Europe and other parts of the world inspired to use their indigenous medicines in Australia to Newzland to U.S.A. Invariably, they also realized that the allopathy medicines are killing their red blood cells alongside their bad cells and has range of side-effects in terms of curing the serios ailments of the body and its diseases.

Ayurveda as a Market:

The manufacturing industry in Ayush has exponentially grown at a CAGR of 17% every year since 2014, approximately at a market variable.(in rupee-equivalent terms). Total Aayush export in India was also a healthy INR 13,000 Cr in 2020 (Times of India).

A study by the Confederation of Indian Industry (CII) stated the ayurveda sector in the country will achieve a gross size of market at \$ 4.4 billion, or roughly Rs 50,000 crore at the end of 2018. The Indian ayurveda industry is happened to record a accumulative sum of a robust 16 % income until 2025. The study centralized on the market size of the Ayurveda industry in India, its strengths and the way forward. It said as much as 75 % of Indian Ayurveda market is accounted for by products and remaining is contributed by services. According to a report by Confederation of Indian Industry (CII) and PricewaterhouseCoopers (PwC) driven by a rise in non-communicable and chronic diseases and increased emphasis on lifestyle and wellness is something that is driving Ayurveda.). The report said 77 per cent is led by domestic household consumption of Ayurvedic products in 2017, up from 69 per cent in 2015 (ET Bureau, 2018).

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While reviewing the competitive landscape of Indian Ayurvedic market, key players include Unani health care; Patanjali Limited, Dabur India Ltd., Kerala ayurvigyan; Vicco Laboratories; Shree Baidyanath Ayurved Bhawan Pvt. Ltd.; Kalera from Rajasthan; the Himalaya Drug Company; Hamdard Laboratories; Forest Essentials; Charak Pharma Pvt. Ltd.; Emami Ltd. and Amrutanjan Healthcare Limited etc.

The key concerns is considering the booming population captivating unhealthy lifestyles due to stress and work pressures adds up the statistics of experimenting with medicines. The political economy of the organic products and demand furthermore builds the potential of the pharmaceutical industry in India. The impact of modern medicine and its failure rate already been witnessed in post covid times, natural disasters and unknown variations of the diseases encourage the use of Ayurvedic medicines in this country. The Ayush Ministry and its various subsidized schemes has further facilitated the producers to be successful private players this industry. More so, the economy is catalyzed by post capitalist gains and inflation that cannot be met with people living below poverty line. This further aggravates the political scenario conducive of these gains and a proper channel of connectivity has been build post covid for the supply of these medicines. This has been prevalent in both rural and urban fringes of the geographically stretched Indian sub-continent. Small networks and associations of ayurveda practitioners, now crystallised into associations, have managed to accumulate critical mass for whom the international ayurveda congress is organised by the Indian Ministry of AYUSH every year (Sujatha, V. 2020).

Undobetedly, in comparison to allopathic treatment, Ayurvedic treatment is more effective in most of the chronic diseases. Despite being the safest relative to other medicine, its pioplarity is low owing to lesser scientific research and credibility and its slow responses demanding patience (Semwal, et al 2015). Recently, the awareness and thus fear of toxicity to allopathic drugs and the high cost of healthcare are causing an increasingly large number of people to seek alternatives.

Discussions and Findings: Supply Chain Management

The pattern of the Ayurveda line of treatment varies from chikitsa (treatment) and naadi(pulses) and combination of powders and herbs are used as a reference for global popularity. The different schools vary from Kerala to Uttar Pradesh to the practices in Europe. Practically the yoga and destress methodology and massages are more prevalent in Europe. There are ancient literature available to this day such as sushruta Samhita(pioneer of surgical methods), charaka samhita, and Sharanga, Ashtangahridya(cure of many diseases) analyses and cures diseases.

These are the sources that are also written on the medicines from where this are been referred or made after understanding the body type of an individual. However, experiment clinical trials on recipes or traditional Ayurvedic treatment involve high costs. This makes it unattractive for stake holders to invest in their scientific exploration as they lack deep pockets like the big pharma (Narayana DBA, 2021). In new age ayurveda this has been further classified as part of the cosmetology and spa market as catering to the upper echelons of the society. All the big corporate players are manufacturing and opening overseas counters to be sold on generic counters creams, facial oils and pain eradication oils of ayurveda. Even so, the child products are enchasing their composition of providing aloevera diapers and baby massage creams to further increase the sales.

According to Samson (2010), the concept of this chain management catered by supply is all about transportation, logistics and inventory of the raw materials to finished goods from the point of production to meet the demand of the consumers. Supply chain has been described by Cai et al (2013) as a process where a manufacturer supplies a product using third-party logistics (3PL) channel to distributors or retailers in another market or region who sells the product to end customers. Effective and efficient management has become a key success factor for specially manufacturing organizations to ensures timely receiving of raw material for production process and assure r timely delivery of finished products to end customers.

Impact of Effective Supply Chain on Ayurvedic Industry.

Supply chain management has been defined as a strategic business approach focused to plan, implement and control raw materials, services, and information streams in a manufacturing process where raw materials are used to produce finished product and then supplied to be used by end users (More and Basu, 2013). SCM is addressed in several literatures as a practice that holds an integral value and scope to ensure operational efficiency of an organization and thus play a crucial role in improving organizational performance as well as gaining competitive benefits. As discussed by Habib (2016), SCM is proposed to minimize inefficiencies and miscommunications within internal and external stakeholders. This view was developed as an extend understanding of lean production concept addressed by Cudney and Elrod (2010); Bhim, Garg and Sharma (2010) who have described supply chain as an interaction between different departments of the firm, vendors, outsourcing resources, firm locations and other stakeholders to ensure efficiency and success to production process. In this perspective, supply chain management has been discussed as an interdisciplinary topic to effectively

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integrate processes of production, marketing, operations, financial, management information system and customer relationship (Jonrinaldi & Zhang, 2013). This view was also supported by Yu et al (2014) in their work describing SCM as a set of methods that makes efficient integration among producers, suppliers, warehouses, and retailers to ensure production and distribution in correct manner so that system costs could be minimized, and maximum need of products could be met. In another work by Kutsikos & Sakas (2014), supply chain practices were identified as managing supply and materials, operations, information, technology and customer service activities. Considering this view into account, Marinagi et al (2015) have provided enough empirical evidence with respect to the significance of information quality in SCM addressing the need of timely, reliable, and relevant information at all levels to enhance monopoly and gain competitive edge. Banerjee & Mishra (2017) consider SCM highly imperative for any industry to make sure that entire SCM operates effectively and thus remain a challenging area for managers.

Basically supplies are from the manufactures although highly influenced by the demand side principle of the classical economics. This eventually becomes or forms a chain like connectivity from the producer to the middleman to the consumer. The principle of supply chain activity is receiving input from firm's suppliers – add value – deliver to customers (Levi at al. 2004). In addition, Patanjali paid INR 4,350 crore (USD 610 million) in December 2019 to acquire the insolvent Ruchi Soya Industries. Mid-cap company Ruchi Soya is listed on the NSE and BSE in India (Market Research).

New product development, marketing, operation, distribution, finance, customer service and other function that related to serving customer request (Chopra and Meindl 2007). According to Sufian (2010) to achieve a competitive advantage and better performance, supply chain management strategy need support the business strategy.

Importance of Supply Chain Management for Organizations

SCM have received increasing attention from Managers, acadmicians, and consultants. Only recently, logistics and supply chain management were firmly established as critical business concerns and thereby as business disciplines (Christopher, 2016). Bagher (2018) has addressed SCM play vital role for organizations not only to increase performance and profitability but to remain competitive in today's highly competitive marketplace. Proper supply chains alignments are very important aspects of any successful business and can often be a downfall for a company that does not take the time to consider how to successfully management them (Carvalho, Cruz-Machado and Tavares 2012). Cutting the unnecessary operations that occur throughout these relationships help in reducing cost, saving time and limit the need for certain resources, allowing an organization to focus their efforts on honing other aspects of the business (Pettersson and Segerstedt 2013). This constant regulation of supply chain operations within an organization can maximize customer value and sustain a competitive advantage over those who supply similar goods and services (Furlan, Grandinetti and Camuffo 2007).

Hajipour and Kord (2011) have identified several factors which may influence financial performance of companies where companies aim to enhance business processes through effective integration of supply and logistic systems. According to Day et al (2015), operational performance and management capabilities are two key two factors of SCM those influence financial performance of companies largely. Operational performance are the results of the organization's processes and activities and is the common assessment for organizational efficiency and organizational effectiveness (Yang, Huang, & Hsu, 2014). This variable can be measured through dimensions such as priority to improve quality of services, emphasis on quality control and total quality management, importance of reduction of errors in service delivery, completion of service delivery process and finally reduction of service time (Wang, Wang & Liang, 2014). Another factor which directly affects the performance of companies is SCM capabilities. Superior performance subject to it are manufacturing firm to integrate completely with its partners throughout the supply chain. Hosseini & Sheikhi (2012) refer SCM capabilities of interaction and collaboration between suppliers, manufacturers, and customers to achieve common goals. In order to increase competitiveness, companies need to increase product quality and have lower prices than their competitors. This means to improve their internal processes, but also to integrate their supply activities satisfy customers.

Impacts of SCM in Ayurveda Industry

Supply Chain is the backbone of a growing economy, and the Indian industry is rapidly evolving through the interplay of technology, infrastructure development, entry of new service providers and regulatory advances. For any consumer company, supply chain and distribution are possibly the most important, yet most difficult, aspect to set up to not just scale but also compete with bigger, more established peers. But the Ayurveda startup sector still doesn't have a well-established supply chain or logistics (network). There has been increasing focus on multipronged strategy through identifying a niche, doubling down on their supply chain and distribution networks, and building on the Ayurveda

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brand. It requires adding the other complexities of claim validation, building trust, and creating the right sources and manufacturing processes.

As per the stats, the customer demands lower costs with improved quality assurance (Srinivasan, 2012). In particular to the rising demands of the products they all needed to be competitive in several dimensions, such as cost efficiency, quality, delivery time and process flexibility (Olhager, 2013). There are three different competitive strategies for manufacturing companies to choose from (Porter 1980). One of the strategies to achieve the above (Lysons & Farrington 2012). The manfactred unit defend and attract customers it has competitive advantage (Miltenburg 2005), which today is crucial for manufacturing companies' survival (Mescon & Thill, 2006).

At a given point of time, to have a proper marketing strategy is to have absolte control over the resources, technology and the transportation, marketing to hospitals, leveraging stakes at a minimum price to combat the inflated markets. The combination of inventory, resource material manages all the materials (Kumar and Anas 2013). Inventories in this regard, are the appropriated stocks a company appropriates for its annal sales (Pandy 2003). They can stock in various forms and raw goods for sale (Levis, 2009).

With this the inventory management refers to a scientific appropriation of goods and services intact to facilitate the sales of an organisation (Jay & Barry, 2006). Especially to handle and mange this level of sales requires human resource and trained professionals alongside technology intervention and material Requirement Planning (MRP).

Take Away: A Case of Patanjali Ayurveda:

The New Age ayurveda is for those seeking Eastern spirituality and holism in the healing experience, while advocates of mind-body medicine could be doctors who are engaging with the non-dualism of mind and body in ayurveda and see it as 'adaptogenic' medicine (V.Sujata 2020). Patanjali has initiated its operations from Hardiwar, Uttarakhand and established as the largest yoga institutes in the country. Initially they started as a yoga institute and eventually entered full-fledged in groceries; ayurvedic oils, herbs and healthcare. They had a three level SCM of products to be extracted from the sources of farming: farmers to the factory to the finished products of medicines. They expanded their operations from India to their chains in AE; U.S.A and some outlets in Europe.



Continued expansion and outlets across Indian markets has influenced supply chain system of Patanjali which resulted as rising sales in the last five years' timeline. The estimated turnover crosses 20 billion of Indian Rupee as the estimates of economic times. They are a case study as had a meteoric rise in short span of time. They also have foothold in healthcare and FMCG and cosmetic industry.

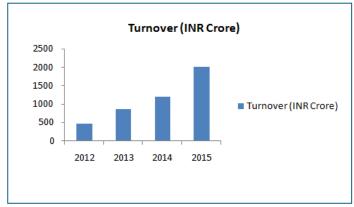


Figure 1: Turnover of Patanjali Ayurveda

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Patanjali had reported revenue of Rs 10,561 crore for the year ended 31 March 2017, more than double the Rs 5,000 crore in the previous year (ET, 2018). The growth slide from more than 100% to nearly zero can mean the slowing down of Patanjali which at this point of its rise wold not be accepted. But Acharya Balkrishna attributed it to lingering effects of the demonetization and the implementation of the Goods and Services Tax (GST). He said the company invested its energy in developing infrastructure and supply chain during the year. It focused on system development, and not just revenue growth.

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