SCM IN FOOD & GROCERY – DIGITAL TRANSFORMATION DURING COVID-19 TIMES

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ABSTRACT

There is a network of supply chain behind every product that starts from planning and managing various activities facilitating the conversion and movement of that product, from its initial stage to the final stage of consumption. After inclusion of Industry 4.0, which is also known as the transition from digital inclusion to digital empowerment, interdependency between companies across the world has amplified. Efficient Supply Chain Management is a must. However, restrictions during COVID-19, made people and companies rethink and realize about how highly interdependent Supply Chains all across the world, have created various risk elements in their process. In this descriptive research, an attempt has been made to present in detail- how companies, operating have followed various strategies, operation management techniques, and risk mitigation techniques, to resolve the issues and concerns emerging due to various qualms due to COVID-19. Cases of companies have been discussed which have successfully adopted strategies like Business Process Re-engineering, Supply Chain Collaboration, C.P.F.R model and S.C.O.R model. This pandemic has made corporates contemplate existing business structures, business processes, organization capabilities; and adapt to the new realities with new reforms. Further, this paper presents that digital transformation has impacted the working of supply chains and turning organisations more robust as well agile in order to adapt and respond to the market dynamism.

Keywords- **Business process re-engineering, CPFR model,** *Digital Transformation, Food & Grocery,* **SCM,** SCOR model, *India.*

INTRODUCTION

The aftermath of 2020 pandemic has caused disturbance in the complete SCM (Supply Chain Management) in different industries which has affected the supply of a lot of products, especially fast food and FMCG brands. McKinsey's healthcare researchers stated that, the effect of COVID-19 on the supply chain could cost up to US $400 billion and can be felt for 2 more years. While, it is difficult to avoid the short-term impact and it even harder to predict the long-term consequences. Interrupted movement of shipments, low labor availability and unavailabilty of international workers are a few major contributing factors responsible for this impact. While having limited suppliers can be concerning, not having enough capacity is also an unsettling point. COVID-19 has caused a lot disruptions in the supply chains of various companies.

Grocery and food retailers are responding to an unprecedented demand that strains the entire ecosystem. Customers from all demographics, but especially those over 50, have shifted to digital and delivery, ushering in a new normal for food retail that may become permanent. This has created an environment poised for innovation, with a need to realign supply chains, redefine what parts of the food workforce are essential, and gain updated understanding of how to connect with loyal customers. The period of panic-buying has curbed as consumers have become accustomed to the "new normal" of grocery shopping. New shopping patterns, with higher reliance on online and delivery options, have become commonplace. With customers' expectations in grocery shopping forever changed, the bar to "thrive" is now set high for all grocery retailers.

Background

Before we move on to understand how businesses develop their strategies for managing supply chains in this pandemic, let us first understand the above-mentioned keywords- SCM, Business process re-engineering, SCOR model, CPFR model. These basic concepts are the founding pillars of all modern-day business strategies that are being implemented today.

What is Supply Chain Management?

Supply chain management, simply put, is how we govern the flow of products (goods and services) and includes all the methods and the techniques that are required to convert raw materials into final products. All the activities that could help us maximize customer value and also assist us in gaining superiority over others through its competitive advantage in the market. Supply chain is a representation of the efforts made to create and implement supply chains that are efficient, effective and as economical as possible. All the stages right from product development to production, the Information system needed to guide these undertakings and finally to the delivery of these products to the end user are covered under supply chains. Now that we understand what supply chains are let us understand further about supply chain management. An SCM is basically an attempt manage and

control the production, storing, transporting, shipment and distribution of a product. By managing supply chains and making them stronger, companies can cut down on excess costs, while delivering the products to the customers much faster, hence also increasing customer satisfaction. This is done by maintaining a tighter control of internal inventories, production, distribution, sales. Supply chains have existed since a long time, most companies have recently emphasized on its management, it as a value-add on to their ops.

We have tried to explain a few conceptual methods of supply chains management that companies are adopting to limit the aforementioned interruption and impact. Concepts like CPFR (Collaborative planning, forecasting and replenishment), SCOR model (Supply Chain Operations Reference), and, Business Process Re-engineering are being adopted by companies to smoothly operate in this pandemic. As we have already discussed the impacts of COVID-19 on the supply chain industry, we would now elaborate on these concepts-

I. CPFR is an abbreviation for collaborative planning, forecasting and replenishment. The institute of Business Forecasting and Planning suggest, "CPFR strategies allows the alignment of multiple S&OP (sales and operations planning) processes and helps in planning the supply chain activities to ensure that the joint business plans between the organizations are respected, while maximizing the efficiency between two ends of the supply chain and also minimizing the cost." Using these strategies can help organizations get ahead by focusing on collaboration.

II. SCOR (Supply Chain Operations Reference) model is a management tool that is used to address, improve and communicate SCM decisions within an organization and with the customers and suppliers of the company. This model helps describe business processes that is required to satisfy a customer's demands. It also helps in understanding the processes along the supply chain and provides a basis to improve.

III. Business Process Re-engineering involves the radical re-design of core business processes that would help the organization achieve dramatic improvements in productivity, quality and cycle times. In B.P.R, the organizations adopt a new value system that places more emphasis on catering to the needs of the customers. They reduce organizational layers and start by eliminating all of the unproductive activities in two areas. Firstly, they redesign functional organization in to cross-functional teams. Secondly, they use technology (Big Data, Machine Learning, etc.) to improve data dissemination and the decision-making process.

RESEARCH OBJECTIVES

This paper is intenteded to find out how different compnies have adapted to the new realities during COVID-19 to achieve at the position of customer-centric market leader and as agile business organisation.

- To understand the conept of SCM in the context of food & groceries supplies.
- To study the new reforms introduced by major food & grocery retailers in India.
- To analyse specific tools used for digital transformation to limit physical contact.

FOOD AND GROCERY RETAILING SCENARIO IN INDIA

Indian Food and Grocery Retail Market is cosidered to be third largest in the world of almost US dollars 500 billion as per USDA.GOV report of 2019. And is dominated by 98 percent of local kirana strore and rest in the modern forms – super markets and hypermarkets. Online F&G retailing contributed less than 2 percent before 2020.

The year 2018 had seen noteworthy developments in the retail as well as the e-retail space in India. 7-Eleven, the worlds largest convinence store chain had announced its intentions to set up their first stores in India after they had finalised a franchise deal with Indian retailer future group. Reliance, which is India's largest food retailer has been intersted in the area of traditional groceries (Kiranas) through business-to-business ecommerce with a digital wholesale marketplace. The aim of this platform is to serve urban areas to remote villages at various order sizes. The total imports of consumer oriented products were US $5.3 billion. The list of top import growth products in India consists of: Tree nuts (eg. Almonds and walnuts), Apples, pears, grapes, Non-Local/Seasonal Fruits, Leguminous Vegetables and dried pulses, Beverages, spirits and Vinegar.

The major players in the organised Indian food retail sectors are:

- Reliance Retail – Reliance Fresh, Reliance Smart
- Aditya Birla Retail Limited – More HyperMarket
- Avenue Supermarts Limited – Dmart
- Future Value Retail – Big Bazaar, HyperCITY, Easy Day Stores, etc
- Star Bazaar (Tata Group) – HyperMarket, SuperMarket
- Godrej Industries Limited – Godrej Nature's Basket
- Walmart India – Best Price Modern Wholesale, Flipkart

To list a few of the top Indian food E-Retailers:

- Big Basket
- Amazon Pantry
- Grofers

- Zopnow
- Nature's Basket
- Reliance Fresh
- Bazaar Cart

The Indian retail market is still in its early stage and is yet to reach its full potential. The valuation of the Indian organized retail market is at US $60 billion which is about 9 per cent of the total retail sector and the unorganized retail market represents the remaining 91%. It is the same with the food retail market wherein the organized sector is only 3% in contrast to the unorganized sector which is forming the remaining 97% of the food retailing market. The CAGR (Compound Annual Growth Rate) of the organized retail sector in India is at a 20-25% per annum, which is a strong indicator of its growth potential in coming years. General stores, kirana stores, convenience stores and street markets are dominating the unorganized sector of food retailing in India. On the other hand, gourmet stores, department stores, discount stores, hypermarkets and supermarkets form up the major portion of the organized sector of food retail in India. The two most noted and significant trends that are emerging rapidly in the Indian food market are: firstly, the expansion of imported food categories and products. Secondly, the increasing popularity of the gourmet food market amongst Indian consumers.

RESEARCH METHODOLOGY

In this research paper, to meet the research objectives of describing the situation in the specific context of SCM of Food and grocery retailing in India, secondary sources- publicly available published sources have been utilized which included- newspaper articles, reports and company websites.

In this research paper, we have illustrated a real-life, modern-day example so that it is easier to understand these three concepts in depth. So, here is an example of an e-commerce giant, Big Basket, which was suffering due to COVID-19, and with the help of the three aforementioned concepts, managed to see a 900% spike in order.

RESPONSE OF INDIAN FOOD RETAILERS TO COVID-19 IN THE CONTEXT OF SCM

Major food & grocery retail players in India responded quickly to the challenges posed by COVID-19.

Reliance Industries: Started its retail operations in 2007, reliance retail clocked revenues of abour US $22 billion in the FY ending 31st March 2020. These revenues include revenue from ist telecom operation; the 'core retail' revenue was around $US 13 billion in that period. Reliance was piloting a business intially named New Commerce since early 2019. Its purpose was to enlist a large number of independent retail outlets to install its purpose-built 'point-of-sale' system that would link those

outlets own inventory management process with a reloance retail back-end. This system allowed the shop owners not only to replenish select SKUs through reliance retail but also carry out analytics based merchandise planning and facilitate access to reloance supported digital payment platforms. The pilot has now been completed leading to the launch of a platform named JioMart. JioMart handles over 250,000 orders per day and has been rolled out in 200 Indian cities so far.

Future Group's flagship retail chain, Big Bazaar, has recieved a new lease of life from RIL (Reliance Industries) between its ongoing battle with the American e-commerce giant 'Amazon', which has challenged Future Group's deal with RIL to sell its retail and wholesale assets to Reliance Retail Ventures for around INR 24,700 Crores.

Aditya Birla Group In some cases the hyper market is sending trucks to pick up goods and are working with two-thirds of what the company would normally carry as inventory. Labour is one of the biggest challenges for the company. The workforce is scared too because of the various actions that have been taken by the local authorities in different parts of the country. This issue is also affecting the suppliers and their factories. While within the company there are around 13,000 permanent employees, currently because of challenges around Logistics, they have only around 9,000 employees at work.

RESPONSE OF INDIAN FOOD E-RETAILERS TO COVID-19 IN THE CONTEXT OF SCM

The pandemic has been a boon for the e-grocery sector which has seen a 1.7x rise in gross merchandise value in June 2020 vis-a-vis January 2020. Big baskets annual gross sales run-rate has crossed US $1billion fort he first time in May. Overall there has been a 144% growth in the online sales of fresh vegetables and fruits and 150% of growth in the online sales of FMCG products. COVID-19 has made the idea of shopping for groceries online more mainstream. It is a major event especially for a country like India, where the consumers used to purchase the products from the omnipresent Kirana shops.

Amazon India had annouced that it would be launching its online gocery store, Amazon Fresh in four more cities; Kolkata, Ahmedabad, Pune and Chennai. Amazon has launched the services in these cities through the expansion of ist specialised network enabling ultra-fast delivery services of grocery and daily essentials under Amazon Fresh Store on Amazon.in. The company has more than 5,000 products, ranging from fresh fruits and vegetables, dairy, ice-creams and dry groceries like packaged food, etc. In, September, Inc 42 reportes that the online grocery market in India could grow to US $3 billion GMV (Gross Merchandise Value) by the end of 2020. One of the major factors for growth in online grocery retailing is COVID-19.

Burger King, a popular fast food chain, responded innovatively, in response to the ongoing pandemic. Their tweet had a long note along with the caption "We know, we never thought we would be saying this either." The note in this tweet encouraged people to order from McDonald's, KFC, Domino's Pizza, Taco Bell, and other fast food chains. This tweet had surprised and impressed people. This got customers full respect and admiration for the fast food chain.

Big basket is a privately-owned retail e-commerce, online grocery retailing company which was founded in the year 2011. During the COVID-19 pandemic, big basket had suffered a loss in the initial days but is making a comeback now. Even though essential goods were exempted, the delivery executives were initially "harassed by the authorities", which triggered a reduction in their workforce. Due to this, all the operations at Big Basket freezed. The Tech-savvy company quickly optimized its resources and leveraged its enormous infrastructure investment to restart operations. In the early days of the pandemic, the orders had fallen below a few thousand. Even after this, the e-grocer company, managed to scale up its operations even though they were short of the manpower.

On 22nd March, a Janta curfew (one-day lockdown) was announced in India and Big Basket had all local permissions to operate one day before only, however due to confusion and miscommunication, the local authorities asked Big Basket to shut down warehouses, etc. This had created panic and confusion amongst the workforce too. Most of the migrant workers started leaving for their hometowns resulting that the company's operational capacity was reduced to half. This was not the single-biggest issue Big-Basket faced, according to Mr. Menon. From its 32,000 Listed stock keeping units (SKU's), Big Baskets SKU's had dropped down to just 3,500 SKU's. After the commencement of the of the lockdown, the orders were dropped from 1,50,000 to just 30,000 orders in the normal business days.

In the past 2-3 years, they had invested in developing 'infrastructure capabilities' and worked on building and improving their supply chain and warehouse network. This was one less thing to worry about during the lockdown as the company faced no issues on the supply-side with their farmer partners, mills and FMCG companies. The company collaborated with various different companies and had up to 57 partnerships at one time, which scaled the operations up from 30,000 order to 300,000 orders. Big Basket had partnered with the National Restaurant Association of India, Uber, etc. so that they could ramp up the operations with more people. Every morning they set capacity (delivery targets) based on the number of people reporting to work, hence running operations was that dynamic.

Even with limited workforce, the companies carried out a lot of tweaks and automation and all the changes proved to be beneficial as the productivity went up by 23%. This was a point of realization for the company that even with lesser number of people, they could manage a lot of orders. Since the

slots were shutting in 15 minutes due to a demand surge of more than 5-6 times of regular orders, the company tried to devise a plan that could get more people to utilize one slot. Big Basket then started getting people to buy together by encouraging neighbors to accumulate orders and placing the same on either WhatsApp, or by calling them. The team had then quickly introduced community selling and asked various apartment, societies and complexes to put orders together for their residents. This helped them is the "last-mile delivery optimization."

Earlier the delivery executives would go to the same apartment complexes at least 3-4 times a day and now they would go for deliveries only 3 times a week. Big Basket has optimized their resources smartly and further rationalized their SKU's in cities with acute shortage of manpower. Soon after the government supported in scaling up their operations and it manage to overcome obstacles such as easy movement of delivery executives, etc. Mr. Menon then stated, that Business Process Re-engineering had been the key to increasing productivity and optimizing sales.

CONCLUSIONS AND MANAGERIAL IMPLICATIONS

In this paper, brief discussion about supply chain is presented and how various food & grocery retailing and e-retailing companies have responded to the on-going pandemic. From Burger King, promoting its competitors and eventually itself to the shortage of workforce and how companies have overcome those obstacles by various models of Supply Chain Management. We can safely say that during a pandemic like this, companies need to have a thorough understanding of how their supply chain operates and should also have clarity in the process of various operations. We have seen as in the case of Big Basket and how they used Business process re-engineering to get a 900% spike in their order volume. Another thing that we can conclude the biggest issue plaguing the major grocery e-retailers and retailers in this pandemic is the shortage of workforce. As we had seen in the case of Big Basket, the workforce had been dropped down by 50% and how using the Collborative planning, forecasting and replenishment model they partnered with various other companies like uber, etc to resume the operations smoothly.

LIMIATIONS AND FUTURE SCOPE OF STUDY

Among the most important limitation of this secondary data based research is the reliability of the information available online on various news sites and reports available online. This research focuses on the specific context of food and grocery retailing in India only as these fall under essentials and are unescapable to survive, even in the complete lock down scenarios. Likewise the consequences of Omni-channel behavior needs to be studied in the long run. With the changing and gradually reducing impact of pandamic how consumers are likely to go back to the traditional formed local Kirana strores or continue with the omni channel and online ordering needs to be explored with the product and

specific environmental context- rural and urban India. Future research can also address how the temporary SCM arrangements by the companies have been institutionalized. Consumer acceptability of online ordering and related issues can further be explored in the specific context of different product categories and specific environmental and demographic context.

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