

Impact of Coronavirus on FMCG Supply Chains and a Way Forward

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ABSTRACT

Coronavirus has become a “black swan event” which has forced many firms and entire industries to rethink and realign their global supply chain models. The swelling number of positive cases has put people, ecosystems, and supply chains at risk. Knowing the characteristics of this virus, and the global movement of people, containment is extremely difficult. However, one thing is for certain—it will have global economic and financial consequences that will be felt through global supply chains, from raw materials to finished products. This research paper deals with the impact of coronavirus on the FMCG supply chain. It would provide an initial framework to assess the impact on the business process and suggest some strategies to be more resilient in the future to these pandemic-like situations. In the end, few process automation steps are suggested to counter the gaps from the research.

Keywords

Coronavirus, Supply Chain, FMCG, Sourcing and Procurement, Inventory Management, Sales Distribution Channels

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Introduction

Could Coronavirus be the “black swan event” that would force many firms and entire industries to rethink and realign their global supply chain models?

As a typical “black swan event”, Coronavirus took the world by complete surprise. This newly identified virus was first seen in Wuhan, the capital of central China’s Hubei province, on December 31, 2019. By the mid of July 2020, almost 90,000 people have been infected by the virus, leading to over 3,000 deaths.

Despite significant efforts to contain the spread of the virus, including a travel ban to and from eight cities in Hubei province, COVID-19 has already spread globally. Over 65 countries are now reporting positive cases, with a significantly growing number of positive cases in the United States of America, Brazil, India, and Russia. Till now globally the number of infected people has reached the tally of 21,754,261 with 771,380 deaths and 14,479,584 people recovered. India has now reached globally third in the tally of the number of positive cases with 2,647,316 total infected people, 51,045 number of deaths, and 1,918,076 recoveries. Growing positive cases have put communities, ecosystems, and supply chains at risk. Experiencing the characteristics of this virus, and the global movement of people, containment is exceptionally difficult. However, one thing is for certain—this will have global economic and financial consequences that will be felt through global supply chains, from raw materials to finished products. [Error! Reference source not found.]

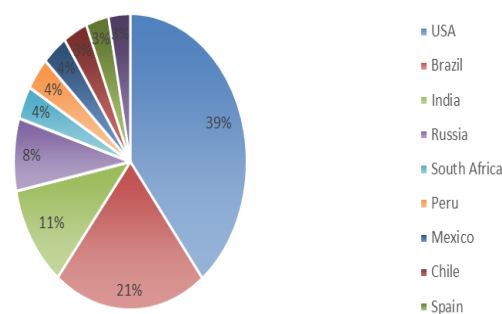


Figure 1: Total Number of Coronavirus cases in top 10 countries

Coronavirus has impacted Fast Moving Consumer Goods firms in many ways

Firms who were prepared than others to mitigate the impact

Few firms had earlier development and implemented supply chain risk management and business continuity strategies. They had included steps like diversification of supply chain across geographies to reduce supply side risks from any one country or region. They had implemented multi sourcing of critical and strategic items to reduce reliance on sole suppliers. Some firms also looked into their inventory buffer strategies against supply chain disruptions

Firms who were better prepared to respond to this event

These firms had earlier established strong supplier relationships with their key strategic suppliers. They had

systems in place which provided them visibility across their supply chain network. This helped them to better understand risk and take timely decisions accordingly. This in turn provided them agility into their production and distribution network. Hence were also able to reconfigure their supply according to global demand.

Firms that scrambled

These firms were the ones who did not have prior worked upon the business contingencies plans and now in present scenario were struggling to ensure business continuity. This research work deals with the analysis part which the firms should run through initially to identify the process gaps in their firm which are vulnerable to events like Coronavirus. This research also provides a framework to analyse the impact of Coronavirus on the process and the recommendations in line of process automation which can be done to ensure business continuity in these uncertain times.[Error! Reference source not found.]

Research Methodology

The purpose of the project is to find the process automation opportunities in FMCG supply chain which can help in business continuity in pandemic like situations. So, we laid out the initial working phase on the project as

- Do a SWOT analysis of FMCG firm under impact of coronavirus.
- Identify the management functions which are responsible, accountable, consulted and informed regarding different supply chain processes by using RACI matrix.

The SWOT Analysis shows the following results:

Strength

- The FMCG firm will have a continuous demand for its goods.
- Generally, a firm number of plants or production facilities to cater the demand in different geographical locations

Weakness

- FMCG firms cater to various product mix. this makes it difficult for the firm to plan and manage inventory raw material, packaging material as well as finished goods for varied product mixes.
- FMCG firms lack end to end visibility in their supply chain. End to end visibility refers to how much the firm is approachable to their tier-n suppliers.

THREATS

- The burden of non-moving finished good inventory piled up on the firms
- Dependability on sole supplier posed as a threat
- Supply Disruptions and logistical challenges daunted firms as a threat of not meeting customer demand.

Opportunity

- Process Gap identification and elimination of redundant processes.
- Making supply chain more resilient by some process automation steps.

Raci Matrix

TASKS	PROCUREMENT	MANUFACTURING	LOGISTICS	FINANCE
PLAN	RA	CA	CA	CA
SOURCE	RA	CA	CA	CA
MAKE	CA	RA	CA	CA
DELIVER	CA	CA	RA	CA
RETURN	CA	CA	RA	CA

R

RESPONSIBLE

A

ACCOUNTABILITY

C

CONSULTED

I

INFORMED

Figure 2: Raci Matrix

RACI Matrix helps us to identify the management functions responsible, accountable, consulted and informed regarding different supply chain processes. The processes were taken from SCOR model. The level 1 processes in SCOR model are:

Plan: According to APICS, “The Plan processes describe the activities associated with developing plans to operate the supply chain. The Plan processes include the gathering of requirements, gathering of information on available resources, balancing requirements and resources to determine planned capabilities and gaps in demand or resources and identify actions to correct these gaps.”

The Procurement function is responsible and accountable for the planning activities. The Manufacturing and Finance are consulted regarding the specification of the material and budget to procure it respectively.

Source: According to APICS, “The Source processes describe the ordering (or scheduling of deliveries) and receipt of goods and services. The Source process embodies the issuance of purchase orders or scheduling deliveries, receiving, validation and storage of goods and accepting the invoice from the supplier.”

The Procurement function is responsible and accountable for sourcing activities. The logistics is consulted in order to get the timely delivery of materials. The Finance is consulted in order to keep the track of logistic cost of the material. The Manufacturing on the other hand is informed when they expect to get the delivery of raw material so that they can plan further production processes.

Make: According to APICS, “The Make processes describe the activities associated with the conversion of materials or creation of the content for services.”

In this the Manufacturing function is responsible and accountable to produce the finished product. The Finance department is consulted in order to keep a track of the manufacturing cost. The Procurement function is only informed regarding to use of raw material and creation of new stock in terms of finished good.

Deliver: According to APICS, “The Deliver processes describe the activities associated with the creation, maintenance and fulfilment of customer orders.”

In this case Logistic function is responsible and accountable for timely deliveries of finished goods to the customer. The Manufacturing is consulted regarding the order availability whereas the Procurement and Finance are informed regarding the movement of finished goods in terms of items and value respectively.

Return: According to APICS, “The Return processes describe the activities associated with the reverse flow of goods. The Return process embodies the identification of the need to return, the disposition decision making, the scheduling of the return and the shipment and receipt of the returned goods.”

In this case Logistic function is responsible and accountable for getting return deliveries of goods from the customer back to the manufacturing firm. The Procurement and

Manufacturing are consulted regarding the defect of the good. The Finance function is informed regarding the loss of value or extra cost attached to mitigate the loss.

This shows if a FMCG firm is being impacted by CORONAVIRUS then

- Activities pertaining to supply side of supply chain i.e. Planning and Sourcing are affected and the function which need to respond to mitigate the impact is Procurement
- Activities pertaining to conversion of raw material into finished good i.e. Make is affected and the function which needs to respond to mitigate the impact is Manufacturing
- Activities pertaining to demand side of supply chain i.e. Deliver and Return are affected and the function which need to respond to mitigate the impact is Logistics

Supply Chain Of A Fmcg Firm

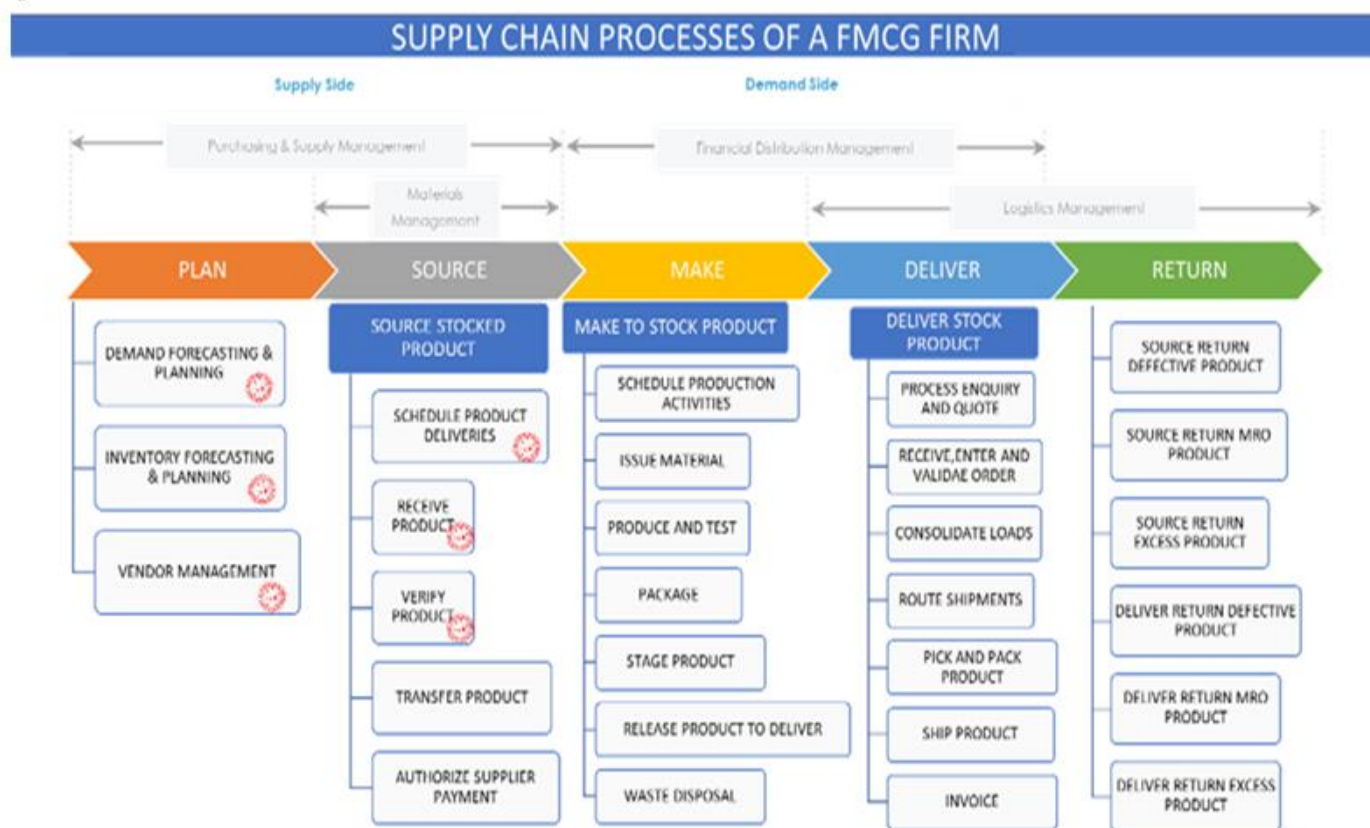


Figure 3: Supply Chain Processes of a FMCG firm

3. Sales and Distribution of Finished Goods

The figure above shows the activities involved under different level 1 processes.

As we are dealing with FMCG industry which makes make stock product under source process activities related sourcing of stocked products are listed. Similarly, under make process activities related to make to stock product and under deliver activities related to deliver stock product are listed. **[Error! Reference source not found.]**

Few activities which we feel according to our research are affected majorly due to coronavirus are:

1. Sourcing and Procurement
2. Inventory Management

In the coming section we will one by one analyse the impact of Coronavirus on these processes and try to mitigate the impact through process automation.

Sourcing And Procurement

Let us consider a FMCG firm operating in crisis like Coronavirus.

The Procurement function is responsible and accountable for the sourcing and procurement related activities in FMCG supply chain. It deals with the direct procurement of class A and class B items. The assumption here is that C class item are less critical than class A and class B items hence the

focus is on procurement of A and B class items. **[Error! Reference source not found.]**

According to Supply Chain Process of FMCG firm

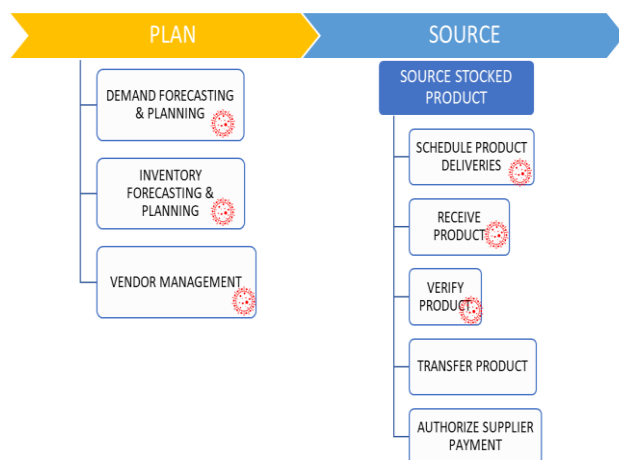
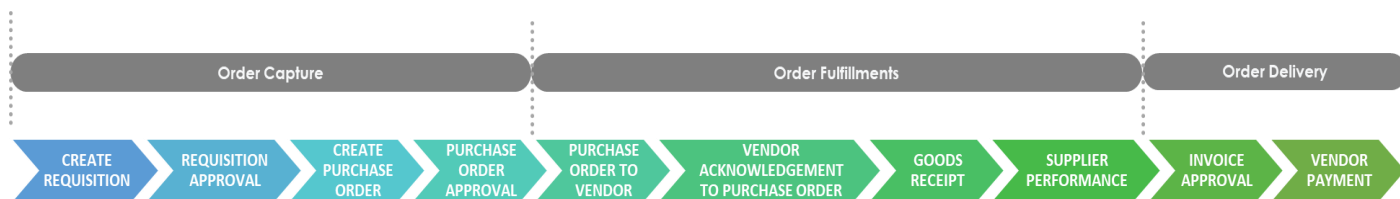


Figure 4: Supply Side Processes of a FMCG firm



The above figure shows the process flow of activities in a procurement function. The order capturing process is ERP based or some type of work flow is already established in most of the firms. Hence it would not have a direct impact due to the pandemic.

But the Order fulfilment Process can be directly be impacted due to Coronavirus. The global impact which are evident due to Coronavirus are

- Multiple countries went into lockdown condition to reduce the spread of virus.
- Transport restrictions were introduced between different geographical locations
- The companies were forced to operate with reduced workforce

Due to the measures taken globally there was an impact on the process of order fulfilment

- Vendors were unable to supply goods
- Some vendors supplied the goods which they had in their inventory. This led to partial fulfilment of orders.
- Due to transport restrictions, the firms used to face delay in order fulfilment.

These factors impact the business of firms. If there is no supply of goods then the manufacture function cannot undertake any production activity. This will lead to no production. No production would mean that customer demand cannot be fulfilled. On a broader scale, the firm would experience loss of revenue and also loss of customer base.

Coronavirus has impacted the above activities in following ways

- Change in demand led to deviations in forecasting and actual production
- Difference in Inventory Level due to sale of essential products only
- Vendor availability issues due to lockdown conditions
- Order fulfilment impacted due to supplier constraints

Let us discuss the impact of Coronavirus on **Order Fulfilment Process**

Impact of Coronavirus on Order Fulfilment Process

The procurement function identifies the requirement and places an order. The firm has dedicated vendors for their critical A class and B class items.

Hence it becomes imperative for the firm to look into the process gaps emerged due to pandemic and devise some framework to assess the impact and strategy to mitigate it using process automation tools.

Assessment of Impact of Coronavirus on Order Fulfilment Process

To assess the impact of Coronavirus on order fulfilment process we analysed number of KPIs and narrowed down to three which can be easily measured and can be applied industry wide.

Percentage Orders Delivered by Vendor in Full

This KPI is a vendor specific metric. It is used to measure what percentage of orders are delivered by a vendor in full quantity as required.

$$\text{Percentage Orders Delivered by Vendor In Full} = \frac{\text{No. of complete orders received}}{\text{Total number of orders placed}} \times 100$$

In times of pandemic when the vendor is under constraints to supply goods to the firm then Percentage Orders Delivered by Vendor in Full will decrease.

This decrease can be shown as compared to the Average Vendor Fulfilment Quantity

Percentage Orders Delivered in Committed Lead Time

This KPI is also a vendor specific metric. It is used to measure what percentage of orders are delivered by the vendor in the committed time frame.

Percentage Orders Delivered In Committed Lead Time

$$= \frac{\text{No. of orders received in particular lead time}}{\text{Total number of orders placed}} \times 100$$

In times of pandemic when the vendor is under constraints to supply goods to the firm then Percentage Orders Delivered in Committed Lead Time will decrease.

This decrease can be shown as compared to the Average Vendor Fulfilment Rate in particular time frame.

Number of Suppliers per Item

Number of suppliers per item is analysed to identify the sole suppliers who are vulnerable to be affected by the pandemic. As we mentioned that the firm deals with class A and Class B items hence if the sole supplier gets affected due to pandemic and is in constraint to supply the goods to the firm, then the firm will not get any critical raw material. Hence the firm would not be in a position to continue business operations.

These analyses indicate us that vendor is at risk. The plausible reasons can be

- Vendor may be placed at a certain geographical location from where it is not possible to supply material
- Vendor may have maintained inadequate inventory of critical class A and class B items to be supplied.
- Vendor may not have visibility into its own suppliers

These all reasons amount to delay in getting orders to firms. This can be mitigated if alternate new vendors are evaluated and onboarded.

Recommendations to Mitigate Impact of Coronavirus on Sourcing and Procurement

Improving Supplier Collaboration and Visibility

Supplier collaboration is essential in these pandemic times to get greater visibility into the supplier's operations. The visibility towards the suppliers can be in areas like:

- Suppliers Finished Goods Holding
- Supplier Production Rate
- Supplier Raw Material Inventory

Information regarding these areas would help the firm to get greater insights on whether the supplier would be able to supply the goods in the future or not.

Hence the firm has an automation opportunity to make a collaborative dashboard with the suppliers. The dashboard can have different metrics like:

- Geographical location
- Network of supplier to tier-n suppliers
- Inventory in Hand at supplier locations
- Average Production Rate

For example, one such dashboard is shown in the image below

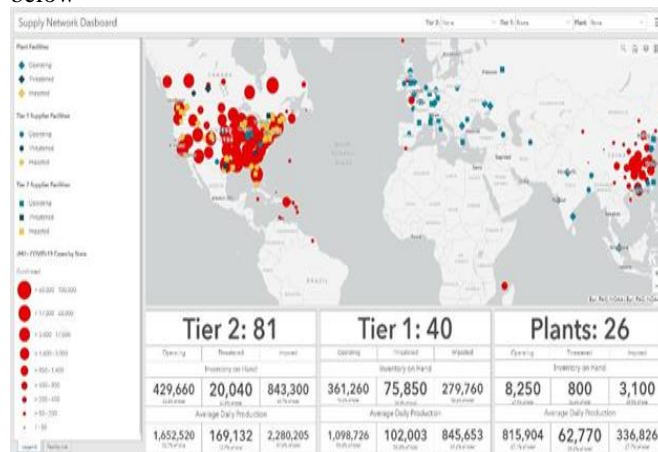


Figure 5: Supplier Collaboration Dashboard

Few such automation tool providers are SAP Ariba, Resilinc and Coupa

Benefits of having supplier collaboration dashboards

- Percentage of Orders delivered will improve
- Swift Purchase Order initiation process
- Better visibility towards capabilities of supplier to supply goods to the firm
- Centralised monitoring of all suppliers
- Supplier Network Mapping can be achieved

Improving Alternate Supplier Onboarding Process

We have seen there is a need of alternate supplier if the sole supplier is not able to provide the goods to the firm. But a normal supplier onboarding process takes 3 to 6 months to complete. As we are dealing with FMCG industry it also has to look into the quality conformity and compliances before onboarding any vendor.

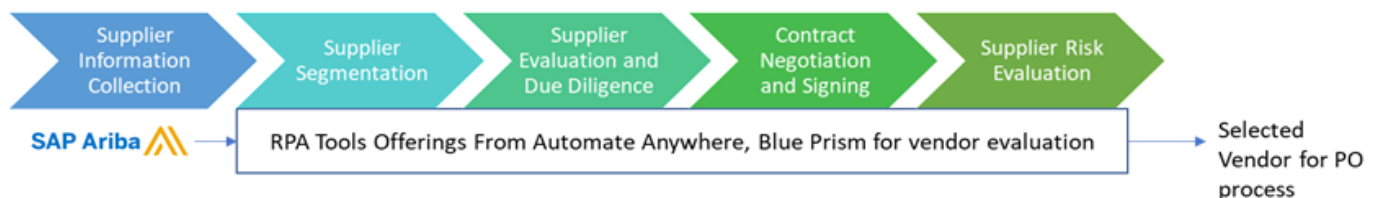
These constraints can be eliminated by reduction of inefficiencies in the supplier evaluation and onboarding process.

PROCESS ACTIVITY	ON GOING PRACTICE	RECOMMENDATION	BENEFIT
Supplier Segmentation	Grouping of suppliers according to critical items (class A and class B)	Addition of parameter of Country Strategic Suppliers	Group Critical & Country Strategic suppliers are considered critical to the overall competitiveness
Supplier Evaluation and Due Diligence	For example, Determination of Quality specification and compliances by the method of sampling Time Consuming	Quality assessment on the basis of Certificate of Conformity (CoC) by independent third-party certifications like NSF certification etc	<ul style="list-style-type: none"> • Reduction in the time consumed in getting the samples and then testing them to determine conformity

		Not possible in lockdown and work from home scenarios		<ul style="list-style-type: none"> Buyer firm can ask the supplier to upload these certificates at the time of registration
Contracts Negotiation and Signing		Series of negotiation meeting take place to define the contract terms, tenure and frequency to review contracts	Contracts with minimum terms can be shared prior to supplier. Digital signing of contract can be done. Minimum Conditions for example <ul style="list-style-type: none"> Tenure of contract can be fixed prior like to 6 months Transportation terms Minimum Orders to be fulfilled Credit Terms 	Reduction in time to negotiate and signing of contract
Supplier Evaluation	Risk	Supplier Risk Rating on certain categories: <ul style="list-style-type: none"> Manufacturing Risk Logistic Risk Financial Risk Quality Risk Relation Risk 	Addition of certain criteria: <ul style="list-style-type: none"> Catastrophic Risk Geographical Risk 	Spike in the Risk Rating of supplier due to any criteria would alarm to look into the risk type and further initiate the process of new vendor selection to ensure continuity of supply

Table 1: Supplier Evaluation and Onboarding Process

The firm has an automation opportunity in reducing the efficiencies in supplier evaluation and onboarding process.



The Supplier Information Collection can be done by using SAP Ariba platform. In this the firm can post their requirements on the network of SAP Ariba. The vendor who is in capacity to respond to the requirement in full would register for onboarding process.

Robotic Process Automation tools from providers like Automate Anywhere, Blue Prism, Coupa etc can be used to streamline the further onboarding process.

Supplier Segmentation should have added fields of country strategic supplier so as to categorize that supplier into a country strategic position who can even supply goods even if the country goes under lockdown condition with the other world.

Supplier Evaluation and Due Diligence generally involves sampling process to ensure the conformity of good to be procured. This is not possible in today's lockdown condition. To counter this problem, quality assessment can be done on the basis of Certificate of Conformity (CoC) by independent third-party certifications like NSF certification etc. The vendor can upload such documents at that time of registration itself. This would reduce the time of getting and testing the samples.

Contract Negotiation is carried out by series of negotiation meeting take place to define the contract terms, tenure and frequency to review contracts. This is not possible in times when the emphasis is on social distancing. To counter this problem, contracts with minimum terms can be shared prior to supplier. Minimum Conditions for example tenure of contract can be fixed prior like to 6 months, transportation terms, minimum orders to be fulfilled and credit terms can be fixed prior at enterprise level. Digital signing of contract can be done after agreement with the supplier.

The RPA tool would take care of all these added recommendations to improve the process. The tool will hence give us the best vendor onboarded and it can be straight away fed back to SAP for purchase order process.

These would reduce the time in procurement process and eliminating any defaults from the vendor side in case the vendor is not able to supply.

Inventory Management

In this pandemic situation, firms faced a surge in demand of certain products and downfall in demand of few products which have become non-essential for consumers.

This situation leads to following effects on inventory management

- a) Inadequate Inventory of Critical Items
 - Lean practices may have restricted the inventory level of class A and class B items
 - Firms did not anticipate to have adequate hedge stock of class A and class B items to counter pandemic situations
 - b) Managing Excess Finished Good Inventory
 - Due to dip in consumer demand, there was a stock piling of non-essential goods
 - Issues with items of shorter shelf life were encountered due to their non-moving nature
 - c) Stock out of Finished Goods Inventory
 - Excess demand of essential item led to stock out of finished goods.
 - Stock outs may happen because production rate less than Inventory Turn as firms experience shortage of raw materials.
 - Production rate may also be less as firms operate at low capacity and reduced workforce.
- Some of the industry in sights regarding the problems faced in inventory management are given below

Assessment of Impact of Coronavirus on Inventory Levels

Coca-Cola, Mondelez trim SKUs as CPGs tackle pandemic stresses Source: supplychaindrive.com

FMCG firms say consumers downtrading, turning to value packs Source: livemint.com

Lockdown: Soft drink makers face worst quarter ever, large scale write-off on the cards Source: theeconomictimes.com

KPI USED TO ASSESS THE IMPACT	IMPACT ON MOVING SKU	IMPACT ON NON-MOVING SKU	INSIGHT FROM ASSESSMENT
Inventory Days of Supply of Finished Goods	Vary	Constant	Difference in Finished Stock Levels
Percentage Contribution of SKU in Sales	Increase	Decrease	Identification of Non-Moving SKUs
Total Stock Value of Finished Goods	Vary	Constant	Risk to Non-Moving SKU due to limited shelf life

Table 2: Impact on Inventory Levels

To assess the impact of Coronavirus on inventory level we analysed number of KPIs and narrowed down to the following KPI:

Inventory Days of Supply of Finished Good

Inventory days of supply of finished good tells about how much days of finished goods inventory is a firm holding. In this pandemic situation this would vary if the finished good is moving in nature where as it will remain constant if the finished good is non-moving in nature. This indicates that there would be different stock levels managed by the firm. [Error! Reference source not found.]

Percentage Contribution of SKU in Sales

Percentage Contribution of SKU in Sales tells us about the amount of revenue is a SKU generating.

In this pandemic situation the percentage contribution of moving SKU in sales would increase whereas the percentage contribution of non-moving SKU will decrease. This would help us the indicate the long tail SKU specifically not performing in these pandemic situation

Total Stock Value of Finished Goods

Total Stock Value of Finished Goods gives value of stock the firm is holding at a time.

The total stock value for the moving finished goods would vary whereas for the non-moving ones it will remain constant. This indicates the risk to the cost of product due to non-moving nature of the goods and also due to perishable nature of product.

Recommendations to Mitigate Impact of Coronavirus on Inventory Levels

The recommendations according to our analysis regarding mitigating the impact of Coronavirus are

- a) SKU Rationalisation: Identifying and planning for those SKU only which have a major contribution in sales in particular time frame
 - b) Focus on Core Product: Elimination of long tail non-moving product mix and focussing on core products. Placing replenishment orders for raw material and packaging material according to
 - Current inventory level
 - Open orders
 - Lead time to replenish the inventory
 - c) Avoid write off due to expired shelf life: Elimination of non-moving products would help the firm to avoid and reduce write off due to expired shelf life
- These recommendations can be achieved by creating interactive inventory dashboards

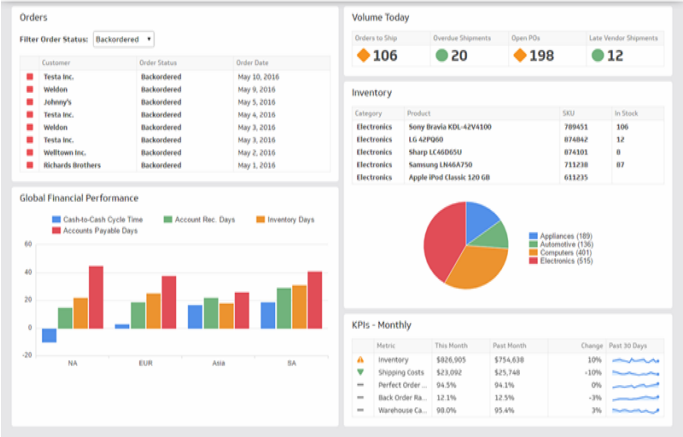


Figure 6: Inventory Monitoring Dashboard

The above image is an example of a shipping status dashboard which gives information regarding the

- Visibility of inventory levels of moving SKU
- Track of inventory days of supply vs shelf life
- Total Stock Value
- Contribution of SKU in sales

These types of solutions are provided by many companies like Klipfolio, SAP Ariba, Coupa and Resilinc. The benefits of applying these solution firms will achieve are:

- Reduction of Long Tail of Inefficient SKU
- Proper Identification of Replenishment Items
- Visibility about Non-Moving SKU and Risk to its shelf life

Now that we have discussed about the challenges and recommendation strategies regarding sourcing and inventory management of goods, the business operation is not complete if the goods are not accessible to the customers or market. In this pandemic scenario we have seen that there have been nearly zero footfall in retail stores and the firms are struggling to sell the goods in the market. This pandemic has also impacted the **Sales and Distribution Channels**.

Sales And Distribution Channels

Coronavirus had impacted the sales and distribution channel in two major ways:

- Distribution to Retail Stores Halted**
 - Lockdown Conditions resulted in reduction of offline customer flow
 - According to the The Bizmon Report there were Zero Retail Orders reported in month of May
- Reduction of Sales**
 - For beverage firms, Peak season of April-June under lockdown
 - Out of home consumption is 80% of sales of this quarter but not possible due to closure of soft drink spots like hotels, restaurants, malls, cinemas, pubs etc
 - Focus on smaller out-of-home packs
 - The Sales of Coca Cola Co in Quarter 1 of 2020 plunged around 25%

Recommendations to Mitigate Impact of Coronavirus on Sales Distribution Channels

The firms have two major outlooks to continue their business operations in these pandemic situations:

- Increase in Sales**
 - New Distribution Opportunities**
- This can be achieved by
- Move to online e-commerce platforms to increase sale proportion by online order + offline delivery
 - Focus should be on the core product for in home consumption
 - Out of home sales can be increased by investing in selling avenues like vending machines.
 - Partnering with third party delivery systems (like Dunzo) to home deliver products
- Some of the new avenues to increase sales and distribution opportunities are:
- Firms can partner with Ecommerce platforms like Amazon and Flipkart to get online orders and have offline deliveries straight to the consumers.
 - In US PepsiCo came up with their own ecommerce platform PantryShop to deliver food and beverage to every

corner of US. Similarly, Heinz came up with Heinz To Home platform in UK.

Third Party Delivery Systems like Zomato, Swiggy, Dunzo, Ola and uber can help firms to directly reach to the consumer home. This will eliminate the need to take risk in times of pandemic to go to a retail store to buy goods and increase sales.

The benefits which the firm will achieve are:

- Direct to Customer relationship is established
- There is less reliance on retailers
- Faster insight to product performance
- Online promotions can be used to liquidate non-moving stock

Finding and Suggestions

The research was done to look for opportunities of improvement in FMCG supply chain which may help firms in business continuity in times of pandemics.

The research and analysis provide a framework approach to look into to inefficiencies in supply chain processes, devise metric using KPIs to analyse the impact and then suggest some mitigation strategies.

In Sourcing and Procurement Process, the finding suggested To Increase Supplier Collaboration: This is achieved by having collaborative dashboards with suppliers which helps to monitor and gain visibility into supplier's inventory holding and production rates. This also helps to create a supplier network with tier-n suppliers.

Improving Alternate Supplier Onboarding Process: This is achieved by reducing the inefficiencies in supplier evaluation and onboarding process. The Supplier Information Collection can be done by using SAP Ariba platform. In this the firm can post their requirements on the network of SAP Ariba. The vendor who is in capacity to respond to the requirement in full would register for onboarding process. The RPA tools are then used to include the added recommendations in process activities like supplier segmentation, supplier due diligence and contract negotiation to streamline and improve the process. The tool will hence give us the best vendor onboarded and it can be straight away fed back to SAP for purchase order process.

In Inventory Management, the findings suggested to have an interactive inventory dashboard which would provide real time information about

- Visibility of inventory levels of moving SKU
- Track of inventory days of supply vs shelf life
- Total Stock Value
- Contribution of SKU in sales

In Sales Distribution Channel, our recommendation to the firm to increase their sales and distribution avenues were

- Move to online e-commerce platforms to increase sale proportion
- Focus should be on the core product for in home consumption
- Out of home sales can be increased by investing in selling avenues like vending machines.
- Partnering with third party delivery systems (like Zomato, Swiggy, Dunzo) to home deliver products

Conclusion and Future Scope

This research framework is applicable in the early phases of control i.e. when the firm starts to experience the impact of pandemic. The framework of identification of process inefficiencies, analysis of impact and the mitigation strategies is which companies can adopt to be resilient in the initial phases of pandemic. This would help them to restructure their processes and ensure business continuity.

The research is on a bird's eye view level. The FMCG industry itself is a vast industry consisting of various sectors like food and beverage, healthcare, household and personal care etc. The future scope in this research would involve planning of mitigation strategies specific to a firm of a particular sector. This would help to include more firm specific key performance indicators to analyse the impact better

Supply Chain Management” in Harvard Business Review, March 27, 2020

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