

To study the upcoming trends in Supply Chain Management & How it is shaping the future of SCM

Dissertation Submitted to



for the partial fulfilment for the award of the
degree of Master of Business Administration
(MBA)

in

Pharmaceutical Management

By

YASH GIRISH SHAH

under the Supervision & Guidance of

Dr. Sudhinder Singh Chowhan

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DECLARATION BY STUDENT

I hereby declare that this dissertation **titled to study the upcoming trends in Supply Chain Management & How it is shaping the future of SCM** is the bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.

Name – Yash Girish Shah

Date – 01st July 2022

CERTIFICATE

This is to certify that Yash Girish Shah in partial fulfillment of the requirements for the award of the degree of MBA in Pharmaceutical Management from the IIHMR University, Jaipur has successfully completed his Internship at IIHMR University during March 01, 2022 to June 19, 2022

Dr. Sudhinder Singh Chowhan
IIHMR University

CERTIFICATE

This is to certify that dissertation titled **to study the upcoming trends in Supply Chain Management & How it is shaping the Future of SCM** is a record of the research work undertaken by Yash Girish Shah in partial fulfilment of the requirements for the award of the degree MBA in Pharmaceutical Management from the IIHMR University, Jaipur under my guidance and supervision and his approach to the research study has been sincere, scientific and analytical.

DR. Sudhinder Singh Chowhan
IIHMR University, Jaipur

Dr. Saurabh Banarjee
School Dean
IIHMR University, Jaipur

Date – 01st July 2022

Date – 01st July 2022

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My Sincere efforts have been taken to complete the desired task of accomplishing this dissertation. I would like to convey my heartfelt appreciation & gratitude to all my professors & also my supervisors for helping me throughout the dissertation which also aided me in conducting extensive research study & learning about a bunch of trending topic.

Secondly, I would also like to thank my parents & my friends who helped & supported me throughout the completion of project within the given time frame. It was quite interesting & useful in terms of upgrading & expanding my knowledge & abilities.

Yours truly,

YASH G SHAH

TABLE OF CONTENT

ABSTRACT	8
ABBREVIATIONS	9
INTRODUCTION	10
LITERATURE REVIEW	13
OBJECTIVE	20
RESEARCH QUESTION	20
RESEARCH METHODOLOGY	21
QUESTIONNARIE FOR SCM	23
RESEARCH ANALYSIS	25
RESULT	30
DISCUSSION	30
CONCLUSION	31
REFERENCES	32

ABSTRACT

Supply chain management is the prosperous management of provide chain operations to realize competitive benefits & client satisfaction. It reflects a joint try by supply chain organizations to make & manage provide chains within the most reliable & potential profitable ways. SCM is that handling of service's by producing goods, ranging from the raw elements to providing the finished goods to the client. Business tends to develop chain of distributor who will send the artifact with staple providers to distributors who are connected with to end users.

Core thought of SCM is the involvement of multiple organizations to transfer the merchandise from origination purpose to finish client. Most organizations square measure restricted to their own activities that square measure happening within the organization associated with SCM, whereas few businesses understood the managed activities of provide chain for delivering the merchandise to finish user. SCM is management of goods & it involved processes from starting materials to that of final item. SCM involves process that a commercial enterprise will minimize the cost of purchase with benefit for competitive gain in specific market. The five most important elements of SCM are developing an approach, sourcing raw substances, manufacturing, distribution & returns. SCM are centralized managing which attend the flowing of products procedures which remodel substances to finished items.

By using handling, the SCM, it will reduce charges & send merchandise to the client faster. Exact supply chain control continues corporations out of the headlines & faraway from expensive recollects & proceedings. A supply chain manager is tasked with controlling and decreasing expenses and fending off supply shortages.

ABBREVIATIONS

SCM – Supply Chain Management

SCM – Supply Chain Manager

AI – Artificial Intelligence

NCBI – National Centre for Biotechnology Information

CHAPTER 1 - INTRODUCTION

Supply chain management (SCM) is the management of goods flowing with their data, and cost with the item, from acquired products required to make it finished goods to deliver off to its final destination. Supply chain management is nothing but managing of offer supply chain process to max customer price & win an ambitious advantage. It also talks about the efforts taken by corporations to establish and provide smooth run of supply chains with only & best ways to potential.

Offer chain processes that always tend to see development with sourcing & production & supply, also to that of information systems which are required for coordinating some processes. Supply chain future is of concerning receptiveness & therefore understand the management at intervals of networks instead of a successful model. Each network should will be reconciled & versatile for requirements which patron whereas conjointly able to address factors like sourcing the trade policies and also modes of cargo, & many more.

New upcoming technology can progressively won't be able to upgrade drastically & show proper visible within the available network, likewise on any change property & SCM utilization.

Whole SCM designing operate can become additional intelligent to require client demands under consideration. The power to adapt is going to be a mandate. SCM is outlined because the merger of key business process across corporations in the best economical leading model. The members of SCM tycoons have told to provide managing of supply chain as designing & managing of current activities concerned in source of product, acquisition, converting & every one supply processes.

The square measure of ranging through aspects foe evaluation within provide chain, eliminates tailback, equalization to the smallest material value & transporting, optimization of producing proper flow, by maintenance of correct combine & site of warehouses & manufacturing units, vehicle routine check-ups, programming of energetic & economical capacity of usage, inventories, & labor square measure of concerned events will provide improvement of supply chains.

The goal of supply chain management is to seem holistically at the supply chain from provider through to the patron, and review 3 core areas of individuals, method & systems so as to maximize price from all activities.

Supply chain management (SCM) represents an effort through providers to broaden & put into effect supply chains that are as efficient & reasonably-priced as viable. Deliver chains cover the entirely from manufacturing to product development to the facts systems had to direct those undertakings.



FIG 1 – SCM

Normally, SCM tries to centrally manage or hyperlink the manufacturing, cargo & distribution of a product by way of managing the supply chain, organizations can cut extra fees & supply products to the client quicker. This is executed through maintaining tighter manage of inner inventory of products, inner manufacturing, sales, distribution and the inventory of organisation providers.

SCM is totally based upon the idea which will near to each product which comes to marketplace consequences with the efforts taken from the various organizations which makes a delivery chain for said product. Despite the fact that deliver chains have existed for a while, most groups have simplest these days paid interest to them as a price-upload to their operations.

Because of the economic changes, pharmaceutical trade member is attempting to reconstitute their offer chains. The pharmaceutical business may be a multipart enterprise in the midst of conflicting functions & a number of other hard limitations. An extremely balance setting which will be combined to life with dynamic nature that product must describe the pharma trade as a unique difficult process.

Supply chain could be a set of processes, players, data, and assets that will transfer unfinished materials, & elements to final project & deliver it to customers. It includes manufactures, suppliers, wholesalers, retailer & final to the customer. They conjointly include every supply chain processes, producing processes & operations with the sales of the item, product lifestyle, costing with finance and knowledge technique.

SCM within pharmaceutical business have to renovate the firms for creating higher usage of resources, to maximize profits, for spicing up the stockholder price, and to optimistically answer client asked questions of the demand. Competitive provide chain managing will start impact and tend for development nearly all processes linked with business, like information accurate for analysis, operating complexness for reduce process, provider choice, purchase of goods, reposition & distribution.

The topmost priority within the healthcare system is transporting of medication as a tactical product. Within gifted context of any health taking or caring society, managing of pharma provide chain has started becoming a lot of complicated as a result which shows involvement of interest resulting in life saving of individual with need of the participating in numerous shareholders like pharmaceutical manufacturing unit, distributors, wholesalers, customers & data having services suppliers & restrictive agent having data for above process.

CHAPTER 2 - LITERATURE REVIEW

Supply chain which is everywhere in globe are undergoing an enormous amendment. Pressure, technology trends and internal evolution are pushing firms to reevaluate their network, to search out however their future offer chain is to be structured, in terms of capability & responsibilities. From the primary assembly lines, the globe saw to today's advanced robotic solutions, the provision chain method is consistently evolving.

According to Diann Daniel (Tech Target) - Supply chain management (SCM) is that the improvement of a product's creation and result stuff sourcing to production, provision & delivery to the ultimate client. SCM encompasses the integrated coming up with and execution of processes needed to manage the movement of materials, data and monetary capital in activities that broadly speaking embrace demand coming up with, sourcing, production, inventory management and storage, transportation or provision & returning excess or defective merchandise. Offer chain management depends on each business strategy, specialised package & collaboration to figure. According to Diann Daniel (Tech Target).

Christine Evans, Acc. To Fictiv Supply Chain Management, the supply chain continues to evolve chop-chop, keeping pace with the unsafe technological advancements of the trendy era. Although it is often troublesome for provide leading supply managers and business tycoons to remain always on prime of those changes, it's seen crucial for trying and do therefore which will like show to take care of the probity of you provide supply chain and can watch the business succeeding to top. Instead of tramping within the slope of amendment, your organization ought to attempt to get prior to the trends that area unit shaping the longer term of provide chain management.

Christine Evans, Acc. To Fictiv Supply Chain Management- The use of computer science (AI) & automation is are on the increase in several provide chains. Automation permits you to contour repetitive tasks, whereas AI — that makes an attempt to mimic human intelligence and 'learn' — will assist with additional complicated, difficult tasks. From creating enhancements to your production line to powering digital twin technology and everything in between, there are uncounted ways in which to include AI and automation into your organization's advancement. The secret is finding tasks and processes which will assist you save time or energy; usually, the simplest tasks are long, sophisticated, or very rote learning. According to Fictiv by Christine Evans.



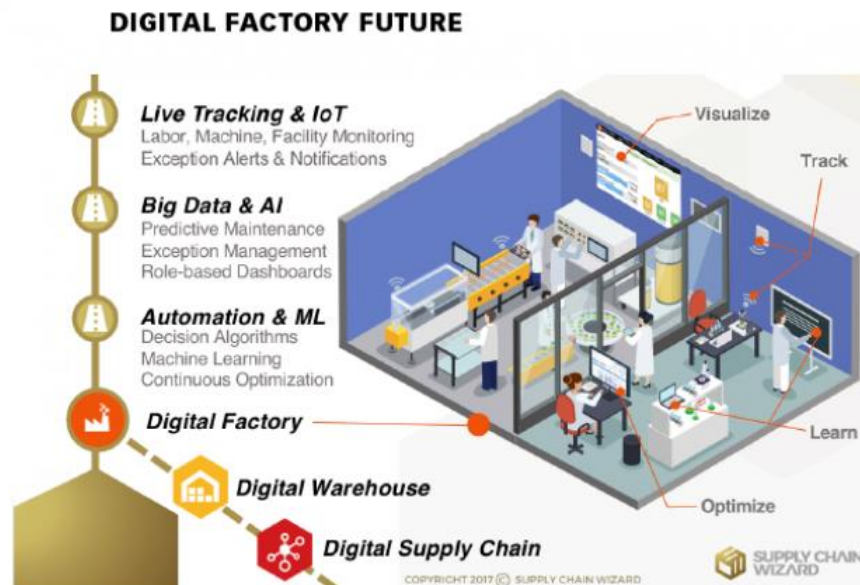
It is obtaining tougher to draw in and retain smart talent. At identical time, the importance of potency is increasing. Hence, automation is that the way forward for offer chain management. Human intervention during this field can cut back. Machine vision and artificial intelligence can enter the availability chain and supply. However, we tend to cannot discount the importance of human ingenuity. The human component can take up higher and a lot of strategic tasks like crafting seamless systems, distinctive and eliminating roadblocks and innovative designing. Partnering with suppliers United Nations agency build automation their sole focus can facilitate corporation's ride the technical school wave to larger potency, improved client satisfaction & ultimately larger gain.

According to Times on Trends in Supply Chain –

Artificial Intelligence solutions have many applications within the provide chain, most notably within the reposition section. Instances of AI use embrace gesture recognition solutions rather than keyboards & mice in acquisition & autonomous vehicles that navigate while not human input. Robots and automation are a giant a part of the availability chain. the latest generation of robots is simple to program, versatile & reasonable. Will assist staff with repetitive & physically debilitating tasks. Acc. To Times.

Christine Evans, Acc. To Fictiv Supply Chain Management, Digitization refers to the observe of golf shot data into a digital format. Once it involves securing the long run of the supply chain, conversion is non-negotiable. Consultants believe that effective conversion will create entire chain additional efficient, mobile, & dynamic – all of that square measure extremely useful for organization's bottom line. Have to realize the correct quite technology to fulfil your organization's wants, implement it properly, and compute any internal difficulties. However, people can't afford to not get modify. It's already the current, & it will solely become additional integral to the provision chain within the future. If you're unwilling or unable to modify your offer chain, you'll probably struggle to succeed going forward. According to Fictiv by Christine Evans.

Christine Evans, Acc. To Fictiv Supply Chain Management, With the evolving digital transformation, corporations can gain increasing access to relevant information and use it to optimize their operational performance and supplying method potency. this may modify the transformation of offer chains into demand-driven supplying & storage chain. Period of time info exchange & process can accelerate data flows within the offer chain, that will be a basic requirement for faster material flows. According to Fictiv by Christine Evans.



According to Emans 2021 - The types of products and their warehouse positions square measure perpetually dynamic over time, typically even throughout one hours reckoning on demand. Period of time processing permits the presently most requested product to be keep nearest to the assembly or by the dispatching purpose. This sort of storage, wherever stocks don't have fastened positions, is also observed as chaotic storage. Similarly, order selecting is often maximized by deploying cluster or wave order selecting, which might be higher answer incoming massive volumes of orders with an occasional range of things.

According to Times on Supply chain - This is the method of mistreatment the latest school solutions in conjunction with alternative physical & digital assets, for redesigning logistical practices. They will then tend to alter higher to the fast, omnichannel & highly-competitive business surroundings. medical care ends up in enhancements in speed, dynamics and resiliency of offer chain operations, that ends up in higher client responsiveness & a lot of revenue. By going digital, corporations will expertise real worth, & higher market valuation & revenues. Corporations got to utterly plan their offer chain strategy, not simply embellish with digital technology. Acc. To times.

Few things are as vital a role for SCM as visibility & transparency. Accrued visibility can assist you perceive the state of your provide chain as a full, also as at every link, notwithstanding what reasonably volatility threatens organizations. Thanks to the digitisation of the SCM, for increasing visibility in an extremely possible goal for several organizations. With the proper technological solutions, team will access information on each link at supply chains. With a lot of visibility in your offer chain, you'll be able to forestall minor problems, like order errors or delivery delays, and answer any issues that do arise a lot of quickly. Having the ability to access that sort of knowledge quickly will simplify imperative to spice up the potency, responsibility & resiliency of entire offer chain & organization.

According to TSW on Supply Chain - Cloud-based period of time inventory management that's accessible from anyplace, can build maintenance of best stock levels easier. Will additionally expect accelerated order fulfilment and lesser client complaints because of stock inaccessibility. plenty of warehouse management systems are unit already on the cloud, & leverage the all-time and any place access, similarly as higher security and alternative edges that the cloud brings. By the top of this year, three out of four warehouse management systems are on the cloud, with several corporations adopting a cloud-first or maybe cloud-only approach to produce chain management.

Stronger provider relationships and solid, dependable procurement practices got to be thought-about a priority within the provide chain method. The procurement department will use the business knowledge on suppliers, to extend provide chain selections like provider analysis & suggestions of the most effective business partners. Sensible cooperation will facilitate confirm internal chain risks, supported international political & industrial trends, therefore will be able to forestall or mitigate the impact of stock shortages.

Stamford, Conn., in Gartner April, As provide chain quality and volatility will increase, supply chain organizations will also become more agile. This implies that ancient applications, engineered around aging architectures, aren't fit the duty many longer. a way to future-proof the technological base of the provision chain is to modify to microservices-based & composable application architectures. However, for many organizations, upgrading or implementing a brand-new SCE application could be pricier & long method. Most supply chain leaders perpetually balance the danger of not upgrading against the will to reduce the price. there'll actually be early adoption of standard, composable services within the provide chain – particularly for enterprise-centric applications that may be managed internally. On a multi-enterprise level of totally different business partners & systems concerned, challenges for adoption at scale stay.

Stamford, Conn., April 2020 in Gartner, Edges square measure's physical locations wherever things, individuals & information connect – like operations, machines, sensors & devices that square measure placed across the provision chain network. Edge ecosystems permit deciding to require place on the brink of the first supply of data. Edge ecosystems deliver the infrastructure for machine-controlled network tools, devices & applications to figure in wheel with one another – be it drones, robots or any connected vehicles.

Stamford, Conn., April 2020 in Gartner, Advances in information communications services, like Wi-Fi, Bluetooth & 5G can any support edge ecosystems and complement ancient centralized provide chain solutions. Across several provide chains, edge computing deciding is already occurring, machine- controlled & autonomous networks of edge choices is enabled.

Adam James, Association for Supply Chain Management. Supply chain lightness are essential to making versatile networks which will effectively reply to skilled client demanding and leading to the uncertainty. It will be always necessary for actively determine ways which as need to extend responsiveness by showing variable value structuring units. However, there is no appropriate size which fits all purpose, firms should conjointly foster unceasingly culture of innovation. The agility offers supply chains which are longer term are people who will react quickly to changes, delays & sudden events so as to satisfy client expectations, outmatch the expectations & drive growth. According to ASCM.

According to Zahava Dalin-Kaptzan Manager at Bringg on Customer Centric Supply Chain- Centricity of customer is always on the minds of supply chain members all over, as they have shopper expectation which still expand demand moral, property with business practicing nature. Management of an eminent offer chain would show requirement upskilling talent with longer cross-functionating and with skills having analytics therefore people having the coaching which supports the new levels of centricity of customers. Those offer chains that notice ways in which to fulfil today's escalating and intense client expectations at rock bottom value can prevail.

The Supply Chain needs better cybersecurity & risk management by Tripwire - Cybersecurity is important to protective networks from cyberattacks, that there are still be a threat of dominating to produce supply chains around the world. The transfer of information & firms which are having data-driven by susceptibility. The connectedness suggests that will provide supply partners will unwittingly expose & the customers having privacy for breaches, fraud. Expecting bugger collaborating with only once safeguard networks with devices, individuals & highlighted programs. Additionally, a lot of organizations can like better to invest in redundancy, firewalls, and advanced antihacking technologies & worker coaching.

Astrid Eira B2B Expert Finance Online –

Green chains are simply one among that of numerous offer chain trends moving deposit. Warehouses are going green, for example, feature with advance energy of management process uses the timers to observe the use of heat, electricity, water, and gas everywhere with facilities. This process will facilitate forestall having excessive waste of sustainable resources. Vehicles which are having solar & electrical power are seeing a lot of usage in offer chains; said vehicles facilitate cut back the carbon which is general footprint of supply chains. Similarly, smart climate offer chain coming up with which is predicted that it is having lot of vital roles in chain within the coming year & on that far side. Environmental changes brought by temperature change have an effect on the provision of processes and resources, move showing disruptions to produce supply chains. Corporations can ought by taking into account the factors and appearance with alternative resources. Aside from this they do their share for preserving preserve the atmosphere, businesses that have started adopting property conjointly stand for realizing a lot of in terms of profit & client loyalty (Nielsen, 2018). After all, over hr of shoppers does not mind spending a premium amount for property merchandise. Without experienced consumer tendency on the increase, a lot of corporation's area unit expected for implementing an eco-friendly offer supply chain within the returning years. According to Finance Online (Supply chain trends).

Deloitte (2020). COVID-19: Managing supply chain risk and disruption - It's just not enough for said chains for owing lean steps, offer supply chains must be compelled for versatile & attentive for fluctuations seen in markets additionally. Result also shows that, additional business area unit which adopts a great approach for supplying. New supplies enable availability of supply chain for simply expanding in step with the current demands from market. Technology such have computing enable offer chains to regulate PRN with negligible or no disruption in it.

Visibility of supply chain always remain security concern with many firms nowadays, thus it's not stunning those additional businesses are going to be trying to apply blockchain into the leading supply chains. Technology like blockchain will facilitate for building the whole provide additional clear to attenuate having disruption and tend improving client services (Block geeks). Through new technique like blockchain, all that is available for chain will be integrating in the same platform. Carriers with shipping lines, and supplying suppliers will start using same platform for updating of firms and end users of the merchandise desired destination. Invoice with the payments must made of a same process, too. The integrating streamlines will provide chain & will help the managers to search problems even before arising of the problem.

Conjointly the blockchain provides unequal protected information, because of the technology decentralization methods which protects the information from emended. All end users should conform for updating the information before they are being enforced. **According to Finance Online.**

According to Dr. Md. Moniruzzaman from his research paper. Pharmaceutical supply chain goals are always indicated by a source of Chopra and Johann Mendel, that clearly talks about restrictive concession of merchandise, however additionally embrace leverage data to be a lot of attentive needs of shoppers. They have also noted about, distinctive nature of supply chain for prescribing drugs that makes management advancing data effective for supply chains difficult, however they talk clearly about the rewards that are for doing thus shows vitality. They have additionally shown indicating which corporations have surpassed in the said offer chain performing operations higher nearly to each money live of success. offer chain excellence that improves demand-forecast accuracy ends up in five-hitter higher profit margins.

According to IGI Global John Wang (Montclair State University, USA)

The pharmaceutical trade is beneath severe pressure because of complicated provide chains that are underutilized, inefficient, and unequipped to address the kind of product. The drug company provide chain should meet the strain of a fast-evolving marketplace and therefore the shift from patient to associate degree outcome to endure a radical overhaul. analysis and development prices within the drug company trade are volute, development timelines are growing & customers have become more experienced care choices together with medication and treatment. The marketplace is mounted through the event cycle & increasing potency through rationalization or outsourcing of non-core activities. Recently, the drug company trade enraptured from the “one-size-fits-all” approach for the provision chain flexibility, responsiveness, and dependableness. This chapter allows readers to grasp the techniques for fast commission and call back new product and markets and alternate provide models, inventory pursuit tools to eliminate counterfeiting and parallel-importing risks.

According to Kenco - DaVinci AI, Kenco’s proprietary tool that marries ASCII text file AI/ML tools with a myriad of knowledge sources, helps in driving data-driven provision for customers. This technology has provided dynamic & labor predictions, choose path improvement, and a digital tower to extend visibility across commercialism partners, transport modes, product flows & inventory. Customers have seen savings thousands of bucks in single facilities as a result of investing DaVinci AI.

According To Navata Road Transport CMS-

Automation process of robotics helps provide chain managers notice and improve inefficiencies across the network. Mistreatment computer science, RPA makes it doable for managers to control a seamless operation around the clock. SCM encompasses not simply activities however additionally manual chores. In North America have robotic automation received \$850 million in investments within the 1st 2 quarters of 2018. Drones are more and more being used for the delivery of light-weight things in transportation. though self-driving cars aren’t here currently, they’ll be within the close to future. Automation is changing into additional fashionable as businesses attempt to meet the competitive wants of omnichannel provide chains and especially, the necessity for flexibility. Some of the world’s largest provide chain corporations are golf stroke cash into self-driving cars to avoid wasting on labour expenses, eliminate the chance of human damage on the road, and improve fuel economy.

Gartner, Inc., Magic Quadrant for Transportation Management Systems, Brock Johns, Oscar Sanchez Duran, Carly West-

Logistics software package like Transport Management Software is incredibly useful to provide chain management companies. For provide chain managers, TMS also provides a digital platform which helps them to improve fleet operations by observance inventories and provides in real time across the provision chain. Fleet management want to be an effortful manual method with a high likelihood of mistake. repositing & inventory management are each machine-driven victimisation supplying software's. As a result, accuracy will increase, operational expenses are reduced, and there's additional openness between corporations and also the general public.

OBJECTIVE

- To understand & study the supply chain management trends on going.
- To understand the strategies shaping future of SCM.
- To gain insights about the trends involved in the distribution and supply of pharmaceutical products through studying the steps taken by supply chain leaders.

RESEARCH QUESTIONS

1. How will supply chain create more value
2. What role does social media play in supply chain strategy going forwards?
3. What are supply chain leaders doing about sustainability?

Research Methodology

Type of research: Exploratory & Descriptive Research

Sources of Data Collection: - This research work will be based on both primary as well as secondary data.

Primary data will be gathered through a questionnaire and personal interactions with company employees or supply chain employees.

Secondary data will be collected by: - Journals, Research papers and companies prospective etc

Duration – March 22 to May 22

Sample Size – 100

Data Analysis – The analysis of data in this study will be done by statistical tools which are simple such as percentage, frequencies, average etc will be in use as needed in required data.

The data will be also interpreted and analysed by using Excel too.

QUESTIONNAIRE for SCM

1. Have you heard about Pharmaceutical Supply Chain?
 - Yes
 - No
 - Maybe
2. Have you ever thought that supply chain contributes the bottom line of your company?
 - Yes
 - No
3. Which is the biggest challenge you face in Supply Chains?
 - Transportation
 - Freight Charges
 - Delivery Performance
 - Quality
4. Have you taken any efforts to minimize the challenges you face?
 - Yes
 - No
 - Maybe
5. Are new technologies arriving for supply chain is upgrading your company?
 - Yes
 - No
 - Maybe
6. Which new trending technique is implemented in your supply chain?
 - Digitization
 - AI
 - Automation
 - Customization
7. Have digitization helped to maintain data more accurately?
 - Yes
 - No
 - Maybe
8. Have Internet of Things (IoT) working appropriately to track the shipment?
 - Yes
 - No
 - Maybe

9. Is Artificial Intelligence (AI) incorporated for complex tasks?

- Yes
- No
- Maybe

10. Is Visibility important across the chains?

- Yes
- No
- Maybe

11. Have you thought that agility in supply chains is important?

- Yes
- No
- Maybe

12. Trust build between employees, managers & suppliers is necessary for proper functioning of supply chains?

- Yes
- No
- Maybe

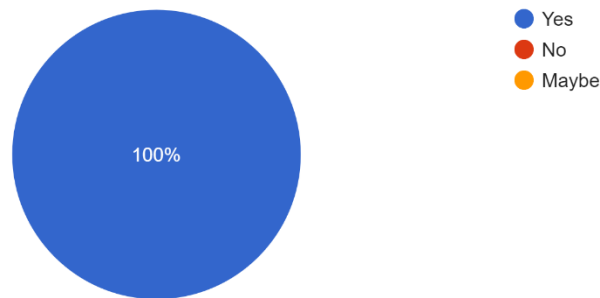
13. After Covid has normal routine started at your supply chain?

- Yes
- No
- Maybe

RESEARCH ANALYSIS

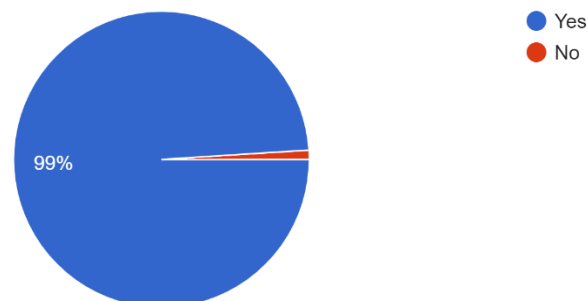
The below responses were taken from some random supply chain employee & also from supply chain managers for better understanding of the future & challenges faced by supply chains and how they are upgrading forward for smooth & easier management of the chains.

Have you heard about Pharmaceutical Supply Chain
99 responses



In this study, 100% respondents know about the pharmaceutical supply chain.

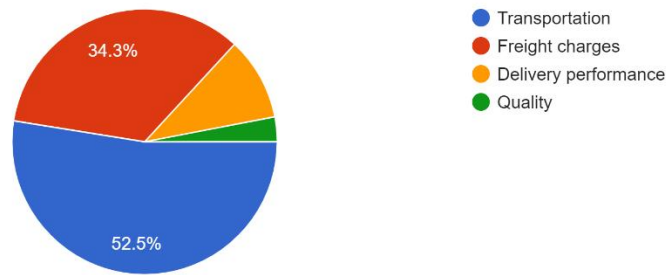
Have you ever think that supply chain contributes the bottom line of your company?
99 responses



Study shows that 99% respondents agrees that supply chain contributes the bottom line of your company.

Which is the biggest challenge you face in Supply Chains?

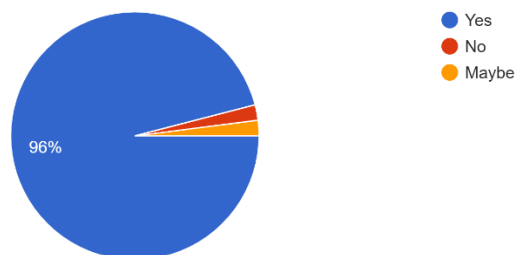
99 responses



Study tells that 52.5% respondents faces issue on transportation, 34.3% respondents say freight charges is major issue, 10.1% respondent say that delivery performance lacks in supply chain, and only 3.1% says quality is a challenge.

Have you taken any efforts to minimize the challenges you face?

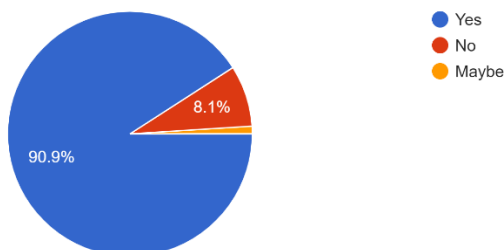
99 responses



Study shows that 96% respondents have taken majors to reduce the challenges that are faced in supply chain.

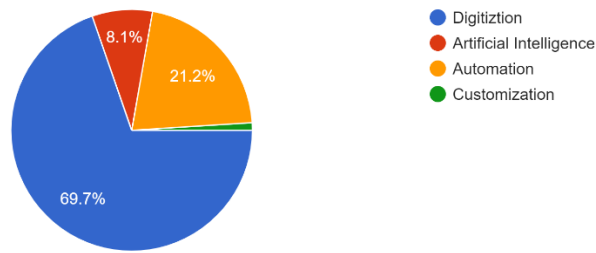
Is new technologies arriving for supply chain is upgrading your company?

99 responses



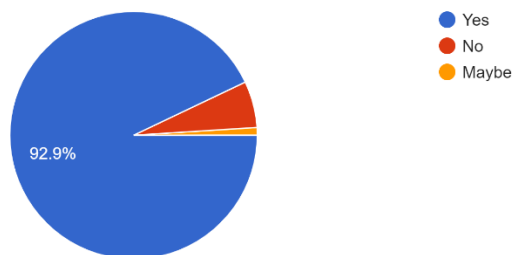
Study tells that 90.9% are applying new techniques whereas 8.1% says still there is no progress in upgradation.

Which new trending technique is implemented in your supply chain?
99 responses



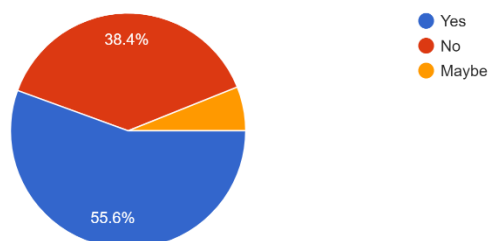
Study says 69.7% told Digitization is being applied, 21.2% says automation is step by step implemented, 8.1% told that Artificial Intelligence is being applied, remaining 1% uses custom techniques.

Have digitization helped to maintain data more accurately?
99 responses



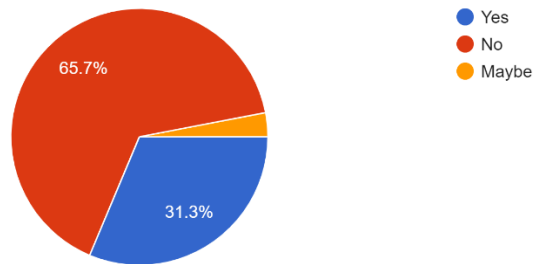
Study shows 92.9% respondents said that digitization has helped them to maintain the company data more precisely & accurately.

Have Internet of Things (IoT) working appropriately to track the shipment?
99 responses



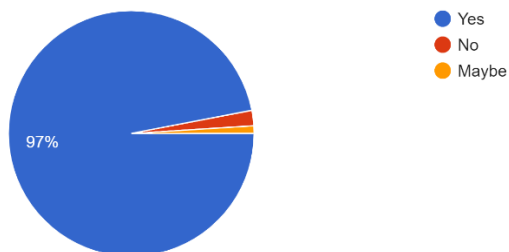
Study tells that 55.6% respondents said tracking is useful through internet, whereas 38.4% respondents say there is no proper tracking through logistics system.

Is Artificial Intelligence (AI) incorporated for complex tasks?
99 responses



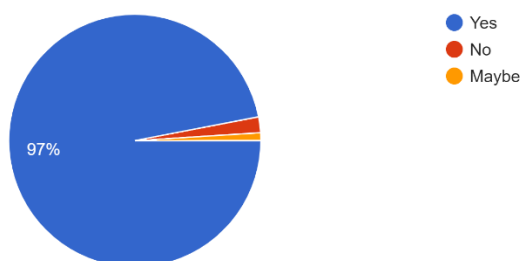
In this study, 65.7% respondents said that AI is being implemented for make task easier, 31.3% respondents say that still there is no incorporation of the AI in their supply chain units.

Is Visibility important across the chains?
99 responses



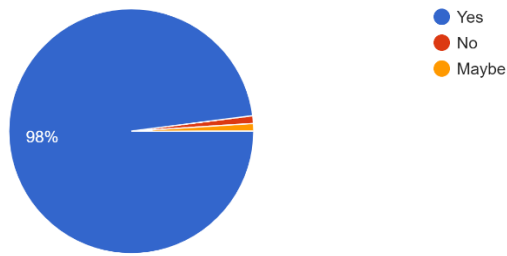
Study tells that almost 97% respondents say Visibility is utmost important to maintain proper supply chain functioning.

Have you thought that agility in supply chains are important?
99 responses



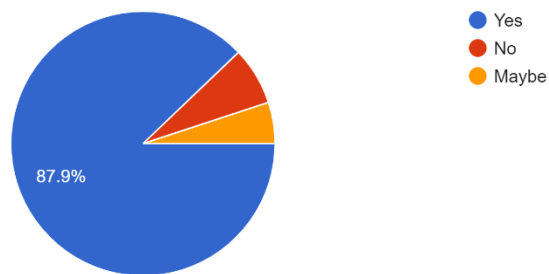
Study shows that 97% of respondents say Agility is more important in supply chains.

Trust build between employees , managers & suppliers is necessary for proper functioning of supply chains?
99 responses



Study shows 98% of respondents say that building trust between employees, managers & suppliers is always necessary for smooth functioning of supply chains.

After Covid has normal routine started at your supply chain ?
99 responses



Study shows that 87.9% of respondents have seen normal functioning of supply chain, whereas remaining say that still they are struggling for normal routine.

RESULT & DISCUSSION

The study included a total of 99 respondents which were being asked questions related to the pharmaceutical supply chain. The respondents which reacted to the questionnaire were from supply chain background, some supply chain managers & staff which work in provide chains.

The above data is collected using the Google forms to check the responses & evaluated under the questions provided for the supply chain staffs. Surprisingly, the study revealed that 100% of the respondents knew what is pharmaceutical supply chain. The study also shows that 99% respondents agrees that supply chain contributes the bottom line of your company remaining must not be knowing what contributes the bottom line. The study also told us that 52.5% feels transportation is the key concern faced in any supply chain, whereas 34.3% say that huge freight seems to be major in chains & 10.1% told that delivery performance through road lines is an issue. Simultaneously, 96% said that managers have taken efforts to minimize the challenge faces in supply chain.

The study also revealed that about 90.9% are upgrading to new technologies that are arriving the market, whereas 8.1% say that still they are working on traditional form as they are used to it. The study shows about 69.7% have started using digitization for upgrading the chain whereas, 21.2% respondent say that automation has being in use by their supply units & only 8.1% say that Artificial Intelligence which is not much in done. The study revealed that by using digitization it has help by folds to maintain the data more precisely & accurately.

The study also revealed that 55.6% say internet is beneficial to track the shipment which is being sent, whereas 38.4% say that all things are not working properly because the tracking the not done on exact location it shows some lag between distance. The study shows about 65.7% say AI is been incorporated for complex task in supply chain but, 31.3% say that still AI is not used for making easier the tasks. The study also revealed that 97% respondents say Visibility is important throughout the supply chain.

The study also show that 96% respondent say Agility is important in supply chain for smooth functioning whereas, 4% say that it's not important. The main part of questionnaire in any company for functioning is Trust between employees who work, managers who manage the chain & suppliers or manufactures who send the goods all this people about 98% believed on the Trust factor. The study also told that 87.9% say after covid it has started operating & functioning to normal routine whereas, remaining chains are working to set the supply chain to new normal.

Finally, after getting the responses we got to know that how supply chain is working & adopting new technologies to make easier & fastest process to send the goods with reasonable freight with live tracking location. Techniques like Digitization is mostly used by the chains & also some processes are being made automated for fast work, AI is very useful but very less supply chain managers are using as it needs time to understand but it is must to incorporated to make complex task more easier & hassle free.

CONCLUSION

Through the above conducted study we can conclude that most of the provide chain employees know about pharmaceutical supply chain & has proper knowledge about challenges faced by individual supply chain & has also taken major to reduce or work upon the issues about transportation, freight charges & delivery performance. New technologies like digitization, automation & Artificial Intelligence has been incorporated in supply chain for time saving & making the task easier.

Digitalization has made keeping the data more precisely & accurately & automation has made process easier for fastest delivery. Also, Internet of Things (IoT) has made more specific live tracking of shipment sent to the location but some say that tracking is having lag for some parts the reason is still unknow. Only 30% people say that Artificial Intelligence are being in trials at their supply chain as its new technique & still not used by many supply chains.

By study we got to know that Visibility & Agility are seem to be most important an integral part for supply chain for proper functioning. Almost all working employees, managers say that Trust is important for making good relations with company for maintaining the business.

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