

The Impact of Mobility Solutions on Logistics & Supply Chain Management

Ayush Kumar Pandey¹, Prof. Neha Bhatia²

¹Student, Galgotias University

²Guide, Galgotias University

Abstract

The emergence of mobility solutions, which include changes in customer expectations and technological advancements, is driving a substantial transformation in the transportation and logistics sector. These technologies, which include blockchain, the Internet of Things (IoT), and artificial intelligence (AI), have the revolutionary potential to update conventional wisdom and improve productivity, sustainability, and creativity all the way up the supply chain. However, there are some obstacles and difficulties in the way of their general acceptance. Seamless integration is impeded by regulatory complications, which are typified by inconsistent regulations and uncertainty surrounding emerging technology. Scalability and efficacy are hindered by infrastructure constraints, which might range from insufficient digital connectivity to differences in urban-rural areas. Adoption attempts are further hampered by technology limitations including cybersecurity threats and interoperability problems.

Policymakers, industry stakeholders, and researchers must work together to develop collaborative solutions in order to overcome these obstacles and enable widespread adoption. Streamlining regulations, establishing standards, investing in infrastructure, promoting open standards, offering financial incentives, interacting with the community, and attending to social and ethical issues are a few of these.

By putting these tactics into practice, the transportation and logistics industry can realize the full potential of mobility solutions and spur expansion, sustainability, and competitiveness. Stakeholders can overcome obstacles, seize opportunities, and clear the path for a transportation ecosystem that is more effective, robust, and inclusive by embracing innovation and teamwork.

Introduction

The COVID-19 pandemic was a significant turning point in the introduction of digital technology. In a matter of months, the world underwent a digital transition that took years to complete. The fourth industrial revolution has been ushered in by the consequent acceleration of technology use, digitization, and the growth of remote work. The study investigates how supply chain management and logistics are affected by mobility solutions. It highlights the thoughtfully crafted smartphone apps that incorporate fleet management features. According to Tarun Nagar, mobility solutions are when staff members use their smartphones and tablets for a range of work-related activities. He says that technology is crucial to business since it allows workers to use a variety of devices and apps to work from anywhere at any time. The transportation and logistics industry plays a critical role in facilitating global trade and commerce by enabling the movement of goods and people from one location to another efficiently and reliably. By making it possible for people and commodities to be moved from one place to another in an effective and dependable manner, the transportation and logistics sector is essential to promoting international trade and

business. It includes a broad range of tasks related to organizing, carrying out, and overseeing the movement of products, services, and information at different phases of the supply chain.

Overview of Transportation

The actual movement of people, products, or information from one location to another is referred to as transportation. It involves a range of transportation options, such as:

Road transportation: It refers to the movement of people and products by road in automobiles, trucks, vans, and buses. Road transportation offers flexibility and door-to-door delivery possibilities, making it a popular choice for short- to medium-distance shipments.

Train Transportation: Train transportation is the conveyance of cargo and people over railroad networks. With its large capacity and comparatively low fuel usage when compared to road transport, it is especially well-suited for long-distance freight transit.

Marine Transportation: Transporting commodities by ships and other vessels across waterways, seas, and oceans is known as maritime transportation. It is crucial for global trade, especially for shipping large quantities of goods across great distances.

Air Transportation: Air transportation refers to the flying of aircraft to carry passengers and goods. It is renowned for its efficiency and speed, which makes it appropriate for long-distance trips and shipments with tight deadlines.

Multimodal Transportation: Using several different modes of transportation during a single supply chain trip is known as multimodal transportation. More efficiency and flexibility are made possible by it.

Overview of Logistics

From the point of origin to the point of consumption, the flow of commodities, services, and information must be planned for, carried out, and controlled. This process is known as logistics. It includes a range of actions, such as:

Warehousing and Inventory Management: Storage, handling, and inventory management are all part of logistics; they take place at warehouses and distribution centers to guarantee timely delivery and effective use of commodities.

Order Processing and Fulfilment: In order to meet consumer demand in a fast and effective manner, logistics involves processing customer orders as well as product selection, packing, and shipping.

Transportation Management: To guarantee the efficient and dependable transfer of commodities from suppliers to consumers, logistics include the optimization of transportation routes, modes, and carriers.

Supply Chain Visibility and Tracking: Logistics uses technologies like barcode scanning, GPS, and RFID to trace the flow of items through the supply chain and give stakeholders real-time visibility.

Reverse logistics: Reverse logistics ensures the effective handling of reverse flows in the supply chain by managing product returns, recycling, and disposal procedures.

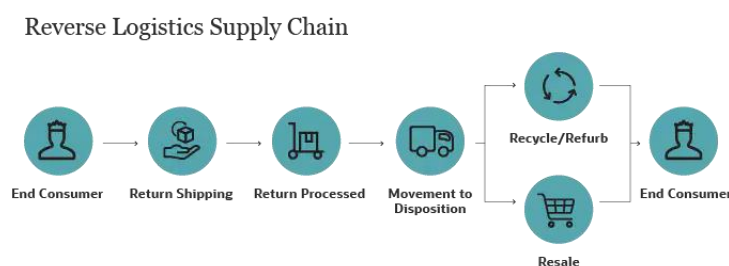


Figure 1

Chapter 1

1.1 About the Industry

According to Abby Jenkins, is concerned with the flow and warehousing of goods along the supply chain. All of the coordination between the parties involved in this network—sourcing, manufacturing, shipping, storing, and selling—is referred to as supply chain management. Finding procedures that guarantee a seamless, effective flow of goods that provide clients with an outstanding experience and advance the organization is the ultimate goal of supply chain management. Supply chain management establishes the plan and controls the day-to-day logistics carried out in local shipping hubs, factories, and warehouses, among other locations. A component of the supply chain known as logistics getting products and services to customers on schedule and at a reasonable cost is the aim of logistics. The movement of commodities from the place of origin to the destination is the main emphasis of logistics and supply chain management. Its disciplines necessitate meticulous labor, facility, and supply chain coordination to ensure that goods can flow through the supply chain as needed. Supply chain management includes logistics as a crucial element, but it is only one part of the puzzle. Supply chain management and logistics are centered on products, services, or data. Additionally, their ultimate goal is to help the business succeed and set it apart from rivals. Additionally, keep in mind that supply chain management and logistics both focus on the same flow of products and services from the provider.

1.2 Growth of Industry

The evolution of supply chain management, according to Dr. Jean-Paul Rodrigue, has been marked by a growing integration of distinct jobs. This tendency was highlighted in the 1960s as a critical area for future productivity increases because the system was excessively fragmented. Even while logistics activities haven't changed all that much, in the 1970s and 1980s they split into two separate roles: physical distribution and materials management. In the 1990s, as globalization encouraged functional convergence and the real-world growth of logistics, this trend advanced. Every component of the supply chain was incorporated into a single management viewpoint. The evolution of both physical distribution and supply networks has recently been dominated by the increasing degree of automation in logistics and supply chains. This digitization is most noticeable in distribution centers where automation has been pushed in areas like packaging, materials handling, and storage. Automation could eventually result in automated delivery trucks.

1.3 Idea of mobility solutions and how they are changing conventional logistics and transportation procedures:

Mobility solutions are a paradigm shift in the planning and implementation of logistics and transportation. These solutions cover a broad spectrum of innovations, services, and technology meant to improve the accessibility, sustainability, and effectiveness of networks for logistics and transportation. They have a significant and varied impact on the transformation of traditional activities. Mobility solutions, first and foremost, optimize transportation and logistics operations through the use of cutting-edge technologies like automation, big data analytics, Internet of Things (IoT), and artificial intelligence. These systems offer dynamic route planning, vehicle scheduling, and asset utilization, which improve efficiency and lower costs by combining real-time data and predictive analytics. Furthermore, mobility solutions encourage the use of electric cars, alternative fuels, and environmentally friendly forms of transportation in order to prioritize sustainability and environmental stewardship.

These solutions support international efforts to mitigate the environmental effect of transportation and logistics activities and support sustainable development by limiting carbon emissions and lowering reliance on fossil fuels. Mobility solutions incorporate innovative business models and service concepts that improve the accessibility and ease of transportation and logistics services, in addition to technical developments. Innovative models such as ride-sharing, car-sharing, bike-sharing, and on-demand delivery platforms utilize digital platforms and mobile applications to provide customers with customized and adaptable mobility options. Mobility solutions also promote cooperation and integration between various transportation modes and logistical networks. These technologies improve connection and reliability by facilitating smooth multimodal journeys and end-to-end supply chain visibility through the dismantling of silos and promotion of interoperability.

1.4 Logistic and Supply Chain Management Company

1.4.1 Flipkart

Indian e-commerce giant Flipkart was established as a private limited company in Singapore and has its headquarters located in Bangalore. Prior to branching out into other product categories like consumer electronics, fashion, home goods, food, and lifestyle items, the company concentrated on selling books online. The service's main competitors are a domestic competition and Amazon's Indian subsidiary. Snapdeal According to Halzack, Sarah (9 May 2018), Flipkart had a 39.5% market share in India's e-commerce sector as of March 2017. As per Sharma, Nishant (March 23, 2018), Flipkart has established a strong foothold in the clothing industry, reinforced by its acquisition of Myntra. It was also mentioned that the two companies are "neck and neck" in the retail of electronics and smartphones. Additionally, Tandon, Suneera notes that PhonePe is owned by Flipkart. IIT Delhi alums Sachin and Binny Bansal, who had worked for Amazon before (Joseph Tejaswi, Mini 2), started Flipkart in October 2007.



Figure 2

Cash on delivery, credit or debit card transactions, net banking, e-gift vouchers, and card swipe on delivery are among the payment options accepted by Flipkart. According to The Economic Times (9 September 2014), Citron is one of the house brands that Flipkart runs. Appliances for the home as well as Digiflip gadgets and accessories. Flipkart introduced several house brands in 2017, such as Billion cellphones. Digiflip and MarQ have been effectively replaced by Smartbuy, an electronics accessories store. Flipkart's organizational structure may be broadly classified into three areas. The company's core team, product and technology, comes first; business development, which is connected to sales, comes second; and third Operations which deals with the supply chain management of the company.

1.4.2 Amazon

Jeff Bezos established Amazon on July 5, 1994, in Bellevue, Washington. The business was founded as an online book marketplace and over time it added many more product categories to its portfolio. It gained recognition as "The Everything Store" as a result of its diversity. The company has multiple subsidiaries, including Amazon Web Services, providing cloud computing, Zoox, a self-driving car division, Kuiper Systems, a satellite Internet provider, and Amazon Lab126, a computer hardware R&D provider. Other subsidiaries include Ring, Twitch, IMDb, and Whole Foods Market. Its acquisition of Whole Foods in August 2017 for US\$13.4 billion substantially increased its market share and presence as a physical retailer.[8 In 2017, the Whole Foods Market grocery chain was acquired by Amazon. With over US\$178 billion in net sales in 2017, it is the top e-retailer in the US. Globally, it has more than 300 million active customer accounts.



Figure 3

During the COVID-19 epidemic, Amazon had significant growth, employing over 100,000 people in the US and Canada. Due to COVID-19's ease of spread in warehouses, some Amazon employees in the US, France, and Italy questioned the company's decision to "run normal shifts". Regarding its rules, the corporation was the target of legal complaints in Spain, and US Senators expressed their worries about workplace safety in an open letter to Bezos.

1.4.3 DHL



Figure 4

DHL is a German logistics firm that delivers over 1.7 billion goods annually and offers express mail, package delivery, and courier services. DHL Express, an express mail service, is a leading provider of parcel services in Europe and is the primary courier and parcel service in Germany. It is a subsidiary of the German logistics company DHL Group. In 1969, DHL, the firm, was established in San Francisco, California, and by the late 1970s, it had spread throughout the globe. Using two Douglas DC-3 and four DC-6 aircraft, the business began offering an inter-island freight service in the Hawaiian Islands in 1979, operating under the name DHL Air freight. The day-to-day activities were individually overseen by Adrian Dalsey and Larry Hillblom until its final bankruptcy forced the closure of the doors in 1983. The company was primarily interested in offshore and intercontinental deliveries, but the success of FedEx prompted DHL's own domestic (intra-US) expansion starting in 1983. In 1998, Deutsche Post began to acquire

shares in DHL. It reached controlling interest in 2001, and acquired all outstanding shares by December 2002.[9] The company then absorbed DHL into its Express division, while expanding the use of the DHL brand to other Deutsche Post divisions, business units, and subsidiaries. Today, DHL Express.

1.4.4 IndiaMart



Figure 5

IndiaMART is the country's largest online B2B marketplace, linking providers and customers, according to IndiaMART.com. As of FY19, IndiaMart boasted 5.55 million supplier shops spanning 54 industries in India and over 82.7 million registered buyers. But its rivals are lagging far behind. TradeIndia.com, Alibaba India, and ExportersIndia.com are a few of its rivals. IndiaMART hired over 1,000 new staff members for its product, sales, and service teams in addition to making targeted investments in expanding its network of channel sales partners in order to bolster its resources. Flipkart, also known as Ekart. The research further stated that IndiaMART matches businesses with appropriate buyers by using its in-house behavioral data-driven algorithmic matchmaking. In order to improve user experience, it regularly invested in data analytics, machine learning, and artificial intelligence (AI) in a variety of user journey segments. In addition to enhancing its technological capabilities, IndiaMART has introduced an exclusive service for Indian exporters called "IndiaMART Verified Export Services," which enables 50,000 export-focused vendors on its platform to grow their clientele internationally. The company has made investments totaling more than \$100 million in businesses that provide supply chain, accounting, financing, logistics, vertical commerce, and other software-related business enablement solutions.

1.4.5 FedEx

It based in Memphis, Tennessee, FedEx Corporation (previously known as Federal Express Corporation and then FDX Corporation) is an American global conglomerate holding company with an emphasis on business services, e-commerce, and transportation.[3][4] The term "FedEx" is a syllabic contraction of Federal Express, the name of the company's initial aviation branch that was in use from 1973 to 2000. One of the first significant shipping businesses to provide overnight delivery as a flagship service was FedEx Express, which is currently the company's most well-known air delivery service. Since that time, FedEx has launched FedEx Ground, FedEx Office (formerly known as Kinko's), FedEx Supply Chain, FedEx Freight, and a number of other services through a number of companies, frequently in an effort to counter UPS, its primary rival. The business employs the fifth most people worldwide with an American headquarters with 547,000 workers, FedEx is among the major federal contractors in the US and helps with the delivery of some items from the US Postal Service via their Air Cargo Network contract.



Figure 6

Due to its widespread use in both the US and other countries, FedEx is frequently mentioned in popular culture. Examples of this include the movie *Cast Away* and a few of the company's catchphrases, the most well-known of which being "when it absolutely positively has to be there overnight" Furthermore, FedEx had acquired the naming rights to FedExForum, home of the NBA's Memphis Grizzlies, and FedExField, home of the NFL's Washington Commanders, from 1999 to 2024. Memphis International Airport's "Superhub" is now the busiest cargo airport in the world because to FedEx's air shipping services.

1.5 Product Profile

Sourcing: The act of identifying, evaluating, and overseeing vendors who can supply the supplies a business requires to run on a daily basis is known as sourcing. Research, strategy development and implementation, definition of quality and quantity measurements, and selection of suppliers that satisfy these requirements are all under the purview of sourcing. Using items or suppliers as a search parameter, you can find your product on Alibaba. It is up to you to decide which providers or items to choose. Providers provide you with a roster of providers who focus on that particular category of goods.

Manufacturing: It is the process of creating products by hand or by machine that a company then sells to a client. Products can be manufactured from raw materials or as individual parts. IndiaMART is the biggest online marketplace in India, helping suppliers, exporters, and manufacturers conduct business on a reliable and common platform.

Transporting: It is the act of taking or carrying persons or things from one location to another by car, plane, or ship, according to the Oxford Dictionary. One of the most crucial elements of any profitable e-commerce endeavor is logistics. With over 100,000 items shipped every day, Flipkart has a difficult time managing its logistics. Additionally, the delivery's expense is borne by the company itself making logistics a financially complex issue.

Storing: It is the act of stockpiling something for potential use at a later time. to gather and store for later use. to place for storage in a warehouse, storehouse, or other location. Electronic devices. to store information in a memory unit. Amazon's successful storage strategy, which guarantees that products are instantly accessible from virtually everywhere in the world, is largely responsible for its success. To guarantee that supply can keep up with demand, the company's warehouses are all positioned strategically close to major cities and population centers. Inventory is distributed among them. In smaller locations, there are even mini-warehouses to guarantee that orders, regardless of what is being purchased, may be transported and delivered quickly.

Flipkart has 7 major warehouses spread across the country in Mumbai, Kolkata, Delhi, Noida, Pune, Chennai and Bangalore. They have smaller regional distribution centers at over 500 locations spread across Tier I and high volume Tier II cities.

Selling: It is any transaction in which money is exchanged for a good or service, according to Meg Prater. The vendor tries to persuade or "sell" the buyer on the advantages of their offer during a sales negotiation. Flipkart uses digital marketing as a main avenue for expanding its clientele. In addition to digital advertising through websites and apps, the corporation leverages conventional channels including print media and outdoor advertisements to boost sales.

Setting a Strategy: Business goals are more urgent targets that you must meet in order to reach larger objectives, whereas strategic goals are more concerned with long-term growth or performance. Strategic goals are more broadly based and aspirational in nature, whereas business goals are typically more precise and quantifiable. One of the most crucial touchpoints for a business in terms of establishing trust, attracting new customers, and retaining existing ones is customer support. It is a tactic for e-commerce websites. The Customer Support department of Flipkart is made up of call center representatives who answer both incoming and outgoing calls as well as an email query team. Customer calls with questions about general inquiries, sales assistance, or shipping and/or product inquiries.

Material handling: It is the movement, protection, storage, and control of items and materials during the production, warehousing, distribution, consumption, and disposal processes, according to MHI. Material handling is a process that uses a variety of automated, semi-automated, and manual tools and systems to assist supply chain operations and logistics. The distinct phases of material handling include material collection, manufacture, and product distribution; materials are transferred in individual rather than bulk units.

Packaging: It is the science, art, and technology of enclosing or safeguarding goods for usage, sale, distribution, and storage, according to Soroka. The process of creating, assessing, and designing packages is often referred to as packaging. Various packaging is used by Flipkart, Amazon, Alibaba, and IndiaMart based on the goods, size, and weight. All of them employ branded packaging materials for their sellers, and it's an easy approach to get premium packaging materials at affordable costs.



Figure 7

Chapter 2

Literature Review

As stated in the Logmore Blog on April 2, 2019, supply chain management is the foundation of the majority of modern economies and prosperous global corporations. From modest beginnings to international recognition. He further says that the supply chain finished in US distilleries and began with slaves who were transported from Africa to the Caribbean to harvest sugarcane, which originated in India. During World War II, logistics played a critical role as military organizations required effective supply lines both domestically and in Europe. Supply networks were required both domestically to manufacture military equipment and supplies and overseas to ensure that troops received supplies and support as soon as feasible (blumeglobal.com, April 10, 2019).

Keith Oliver originally used the term "supply chain management" in 1982. According to Aziz Muysinaliyev and Sherzod Aktamov, supply chain management has become increasingly important to a company's performance and has garnered significant study attention in recent years. According to Ganeshan and Harrison, supply chain management is a system of facilities and distribution choices that handles the acquisition of raw materials, their conversion into intermediate and final products, and the final products' delivery to clients.

Mobility solutions comprise a broad spectrum of ideas, services, and technologies aimed at streamlining logistics and transportation processes. Route optimization, vehicle scheduling, environmental programs, and customer-focused services are some of these options. Mobility solutions aim to improve customer satisfaction, sustainability, and efficiency across the supply chain by utilizing cutting-edge technology like blockchain, Internet of Things, and artificial intelligence.

According to Lee & Corey, supply chain management is the integration of operations across a network of establishments that acquire raw materials, convert them into intermediate and final items, and then deliver goods to consumers via a distribution network. Instead of competing, businesses are working to create more efficient business models so they can better serve their consumers' requirements.

In order to formulate an understanding of the framework that companies in the supply chain can learn to leverage their internal resources to build up the value chain, it is necessary to build a process that can design, make, and deliver innovative, high-quality theories concerning supply chain management (Caridi, et al., 2010).

Consumer desire for affordable goods and services (Pettit, Fiksel, & Croxton, 2010). The contingency theory highlights the necessity for managers to employ company resources to effectively respond to changing conditions and to identify the implications of such changes. Stated differently, the contingency theory emphasizes the idea of effectively utilizing firm resources to meet challenges brought about by a changing environment, such as dynamic customer requirements, technological innovation, and changing external environments. Originally the purpose of scheduling was to lower manufacturing costs and increase asset utilization. But according to Christopher Martin, the introduction of IT has created a solid connection between customers and supply chain partners. In order to service the consumer at the appropriate moment, scheduling is done. Prior to the era of using mobility solutions, logistics was more labor-intensive, manual, and the movement of items was invisible. Due to the development of mobile devices and technologies like RFID and GPS, complete visibility in the flow of goods is guaranteed, leading to effective logistic and warehouse management, according to David Simchi Levi, Philip Kamisky, and Edith Simchi Levi.

The influence of mobility solutions on the supply chain and logistics sectors is discussed on stridelysolutions.com. The growth of e-commerce necessitates the establishment of a company that can impact the Omni channel market and devise strategies for meeting requests instantly. Organizations are able to gather, establish, and evaluate data by using industrial tables or software like CAY. Stridelysolutions.com claims that data is essential to modern company. Businesses work to make better use of the data generated by billions of users every day in order to enhance their operations. While manually managed supply chains limit data availability and accessibility, executives may more easily use the data and make decisions by using a mobile app to accomplish the same.

Vehicles equipped with IoT sensors that can track location and notify the merchant are part of a redesigned supply chain management system. Mobile apps that track the vehicle's whereabouts in real time are connected to the devices. The driver will be aware of their precise location, so there's no need to call them. It is crucial to remember that with mobile applications for supply chain and logistics, all parties engaged in the process stay connected and informed all the way through. Vehicles for firms that operate throughout the day are always in motion. Such movement could interfere with the mechanism and block the delivery stream entirely.

Mobility solutions' importance in enhancing operational efficiency and optimization in logistics and transportation has been highlighted by research. Research has indicated that progress in route planning, vehicle tracking, and real-time data analytics can result in notable financial savings, shortened delivery times, and improved resource management. Mobility solutions help create more streamlined and effective transportation networks by cutting down on idle miles, improving delivery routes, and lessening traffic. The potential of mobility solutions to reduce environmental impact and enhance sustainability in logistics and transportation is one of the main drivers driving their adoption. Research has shown how to reduce greenhouse gas emissions, air pollution, and energy consumption with electric vehicles, alternative fuels, and shared mobility services. Mobility solutions strives to establish more ecologically sustainable supply chains and support international efforts to tackle climate change by adopting eco-friendly technologies and methods.

Problem statement:

The industrial industry's peer pressure and increasing rivalry require the supply chain and logistics sector to accelerate. Every link in the local, national, and international supply chains was thrown into disarray by the COVID-19 epidemic, from facility closures to product shortages. It's time to watch the growth spurt for mobile app development companies. There will be an abrupt surge in the mobile app development market since practically every industry is going digital. The supply chain industry's use of mobility technologies will greatly benefit all parties involved. It will not only halve the amount of time spent communicating, but it will also save transportation expenses. Because of this, now is the ideal moment to get a high-quality supply.

The rise of mobility solutions, including changes in consumer behavior, technological advancements, and shifting market dynamics, has caused substantial disruption and upheaval in the transportation and logistics business in recent years. Although these mobility solutions have the potential to significantly improve supply chain efficiency, sustainability, and customer satisfaction, they also come with a number of difficulties and complications for logistics firms, decision-makers, and stakeholders. The objective of this research is to scrutinize the influence of mobility solutions on customary transportation and logistics procedures, pinpoint the principal obstacles and hindrances to their acceptance and execution, and suggest

approaches for surmounting these impediments to unleash their complete capabilities. This study aims to answer this issue statement in order to further our understanding of the opportunity and challenges.

Objective of the study

- In order to evaluate the state of mobility solutions in logistics and transportation today: In order to achieve this goal, a thorough analysis of the current mobility-related business models, operational procedures, and technology in the transportation and logistics sector must be done.
- To assess the ways in which mobility solutions shaped the industry of logistics and supply chain. To examine how mobility solutions affect customary logistics and transportation procedures: This goal entails assessing how mobility solutions are changing last-mile delivery, inventory control, route optimization, vehicle scheduling, and customer service, among other crucial facets of transportation and logistics operations.
- To determine the potential and difficulties involved in implementing mobility solutions: In order to achieve this goal, it will be necessary to evaluate the possible advantages and disadvantages of integrating mobility solutions into logistics and transportation, as well as how they may affect customer satisfaction, cost-effectiveness, efficiency, and sustainability.
- To suggest methods for getting through obstacles that prevent the adoption of mobility solutions: The aim of this objective is to create practical suggestions and optimal methodologies for logistics enterprises, policymakers, and interested parties to proficiently incorporate mobility solutions into their activities and tackle obstacles associated with regulations, infrastructure, technology, and organizational culture.
- In order to further knowledge and comprehension in the area of logistics and transportation: In order to achieve this goal, new knowledge and empirical data regarding the effects of mobility solutions must be produced. Additionally, gaps in the literature must be filled, and future research, practice, and policy in the transportation and logistics sector must be informed.
- To investigate how new technologies are influencing innovation and change in logistics and transportation: This goal entails investigating how emerging technologies like blockchain, Internet of Things (IoT), artificial intelligence (AI), and driverless cars affect the creation and use of mobility solutions. It seeks to comprehend how new business models, increased operational effectiveness, and improved customer service are made possible by modern technologies in the transportation and logistics sector.

Hypothesis:

A well-thought-out mobile application that integrates fleet management systems would streamline the entire logistics process, including real-time tracking of shipments, according to Nitin Lahoti in a blog post dated December 16, 2019. Mobile development gives information about the location of the fleet and aids in the detection of fleet movement. Your company will benefit greatly from the supply chain management software in a variety of ways. Real-time traffic analysis makes it easy to identify the best route to a destination with features like GPS navigation for customers.

Chapter 3

3.1 Role of Mobility Solution in Logistic Industry

The logistics industry canters on mobility. Each and every day, the industry gets a massive movement of people and packages from one place to another. A well-organized logistics structure focuses on a

competent administration of packages. For industries on a continuous move, mobility solutions through applications and devices come across as a predictable choice as it has the future to play a pivotal role in ensuring detailed data collection with constant and real-time information flow. In addition, the shift towards a mobility structure marks a complete logistics and fleet administration systems to be faster and reliable.

Automation is replacing the old landscape of manual procedures in the logistics sector as mobility advances, which has an impact on standardized workflows and processes. Every aspect of the logistics industry, including cargo, freight transportation, logistics services, and freight documentation, can benefit greatly from mobility.

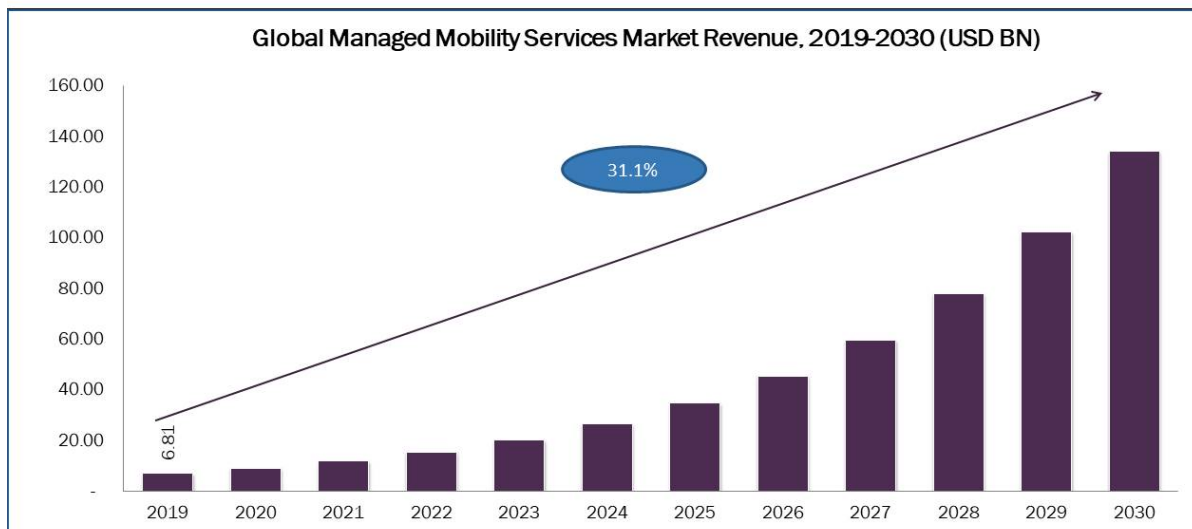


Figure 8

Automation of critical procedures like capacity planning, customer service, and sales, as well as outdated logistical workflows, can greatly increase visibility and facilitate speedier decision-making, improved margins, and increased productivity. The transportation and logistics sector is changing as mobility takes on a new role as the face of customer experience and engagement.

Mobility solutions enable employees to make well-informed decisions while on the road by displaying, processing, and distributing essential data in real time at the source. Companies that have implemented mobility solutions have reported significant increases in profitability and efficiency. These technologies make workforce performance management more simpler by providing increased field worker visibility. Giving employees mobile or customized devices, sustaining real-time information flow, and granting them continuous access to data can increase worker productivity, decrease manual labor, and improve time management. By using less paper, mobility solutions also have a positive environmental impact. The effects of moving to paperless operations on businesses usually show up as enhanced environmental awareness and efficiency gains.

3.2 Fleet Management

Fleet management is expected to change and become more convenient for businesses with the advent of mobility solutions. These solutions will impact all aspects of fleet maintenance, load management, dispatch and scheduling, driver productivity, and vehicle tracking. The ability to track and manage a fleet of cars has greatly increased with the use of logistics software and GPS-equipped vehicles. Applications

provide answers for a variety of problems, including load management, driver efficiency, liability and vehicle maintenance costs, intelligent geographic routing, route optimization, fuel monitoring, vehicle performance analysis, accident reporting, and much more.



Figure 9

For logistics providers, mobility solutions can accomplish a number of tasks, such as managing and monitoring all logistical factors, such as verifying hub capacity use and the arrival and departure timings of transport orders. The control tower visualizes any deviations in the logistic chain, allowing all parties involved to respond quickly. Mobility solutions not only make it easier to concentrate on issues, but they also provide a chance to assess and make adjustments to future route planning.

The mobility solutions also give businesses the chance to process data to get insights that will sound the alarm before any harm is done and accomplish better outcomes more quickly. This gives businesses the chance to take preventive action and enhance operations and commercial performance.

Chapter – 4

4.1 Future Trends and Implications

Autonomous Vehicles (AVs):

Trend: As sensor technology, machine learning, and vehicle-to-vehicle communication evolve, it is anticipated that the development and implementation of autonomous vehicles will quicken.

Implications: By eliminating the need for human drivers and boosting efficiency and safety, autonomous vehicles (AVs) have the potential to completely transform logistics and transportation. AVs can be used by logistics organizations for long-haul and last-mile delivery, which can save money and speed up delivery.



Figure 10

Electric and Alternative Fuel Vehicles:

Trend: As a result of worries about air pollution and climate change, it is anticipated that the use of electric vehicles (EVs) and alternative fuel vehicles (such hydrogen fuel cell vehicles) would rise.

Implication: Compared to conventional gasoline-powered vehicles, electric vehicles (EVs) and alternative fuel vehicles have reduced running costs and are better for the environment. Logistics firms may choose to electrify their fleets in order to satisfy environmental goals and adhere to emission-reduction laws.



Figure 11

Mobility as a Service (Maas):

Trend: It is anticipated that Mobility as a Service (Maas) platforms which include many kinds of mobility, like bike sharing, public transportation, and ride-sharing—will continue to grow.

Implication: Maas platforms lessen the necessity for private vehicle ownership by providing consumers with practical and affordable transportation options. By influencing consumer expectations for on-demand delivery and flexible transportation options, this trend may have an effect on logistics companies.



Figure 12

Drone Delivery and Urban Air Mobility (UAM):

Trend: It is anticipated that the usage of drones for delivery and urban air mobility (UAM) services would increase as a result of advances in drone technology, legal clearances, and the construction of infrastructure.

Implications: By facilitating quicker and more effective delivery of goods in metropolitan areas, drone delivery and UAM have the potential to completely transform last-mile logistics. To improve their delivery capabilities, logistics businesses can look into joint ventures with drone makers and UAM service providers.



Figure 13

Data-driven Decision Making and Predictive Analytics:

Trend: It is anticipated that more data analytics, AI, and machine learning would be used in logistics and transportation for predictive analytics and decision-making.

Implications: Supply chain visibility may be enhanced, demand trends can be predicted, and route planning can be optimized with data-driven insights. To obtain a competitive edge and boost operational effectiveness, logistics organizations could invest in personnel and data analytics solutions.

Regulatory Changes and Policy Initiatives:

Trend: To address new concerns including cybersecurity, safety, privacy, and environmental sustainability in logistics and transportation, governments are expected to enact laws and policies.

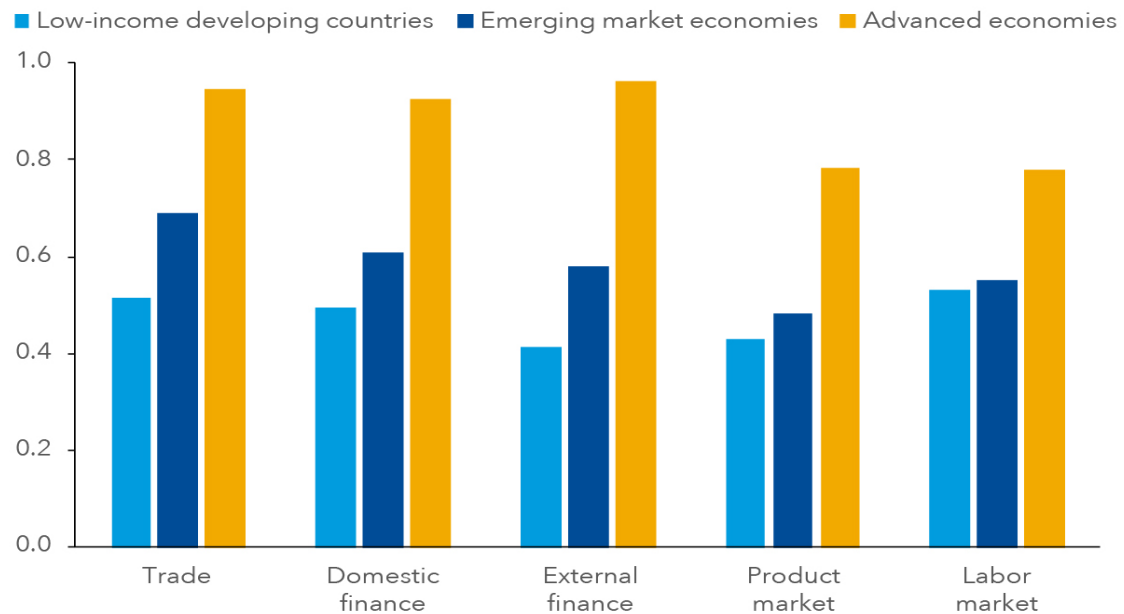
Implications: Adoption and implementation of mobility solutions may be impacted by regulatory changes, necessitating that logistics firms engage in compliance measures and conform to new norms. Regulations that support sustainability and innovation, however, may also provide doors for expansion and distinction.

Structural policy gaps

The market orientation of emerging markets and developing economies is substantially lower compared to advanced economies.

Regulatory stance index

(index from 0 to 1, PPP GDP-weighted average)



Source: IMF Structural Reform Database 2020.

Note: Latest data as of 2014. Database tracks degree of regulation for five structural policies in 90 economies from 1973 to 2014. Higher values represent a lower degree of market intervention.



Figure 14

4.2 Challenges and Barriers

Regulatory Obstacles:

Complicated Regulatory Environment: There are many different laws governing different areas and forms of transportation, which makes the transportation and logistics sector vulnerable to a complicated regulatory environment. Adherence to safety, privacy, data protection, and liability rules can provide noteworthy obstacles for enterprises creating and implementing mobility solutions.

Lack of Regulatory Clarity: Investment and innovation may be discouraged by unclear or imprecise legislation governing cutting-edge technologies like shared mobility services, drones, and driverless cars. Without explicit norms and recommendations from regulatory bodies, companies would be reluctant to invest in mobility solutions.

Infrastructure Restraints:

Inadequate Infrastructure: Adequate infrastructure, such as road networks, electric vehicle charging stations, and digital connectivity for Internet of Things devices, is frequently necessary for the successful deployment of mobility solutions. Nevertheless, a lot of places don't have the infrastructure needed to encourage the broad use of mobility solutions, which limits their efficacy and scalability.

Urban-Rural Divide: In rural and isolated locations, where access to digital infrastructure and transportation services is constrained, infrastructural constraints are frequently more noticeable. To guarantee fair access to mobility options for all communities, it is imperative to tackle the disparity in infrastructure investment between urban and rural areas.

Technical Restrictions:

Problems with Interoperability: When several systems are integrated into mobility solutions, there may be problems with interoperability, especially if those systems make use of proprietary standards or protocols. Mobility solutions cannot function properly unless there is smooth communication and compatibility between various parts and stakeholders.

Cybersecurity Risks: Data breaches, ransomware attacks, and other cybersecurity threats are becoming more common in the transportation and logistics industries due to the development of linked devices and digital platforms. When creating and implementing mobility solutions, businesses must take into account the security and integrity of digital infrastructure as well as the protection of sensitive data.

Financial Barriers:

High Initial Costs: For many businesses, especially small and medium-sized firms (SMEs), the initial investment needed to create and implement mobility solutions, such as autonomous vehicle fleets, electric vehicle fleets, and digital infrastructure, might be unaffordable. Mobility project funding can be difficult to come by, particularly if there isn't a strong business case or return on investment.

Cost of Compliance: Adopting mobility solutions might come with a higher price tag if regulations and standards, such as safety certifications and licensing costs, are followed. Compliance costs are a component that businesses need to consider when assessing the viability and feasibility of mobility projects.

Aspects of Society and Ethics:

Employment Displacement: The automation and digitization of logistics and transportation systems may result in workforce disruptions and job displacement, especially for drivers and other manual laborers. A seamless transition to mobility solutions depends on addressing the social and economic effects of technology change, including retraining and reskilling initiatives.

Equitable Access: It is crucial to guarantee that everyone in society, especially the most vulnerable groups like the elderly, the poor, and those with disabilities, has fair access to mobility solutions. In order to prevent making already-existing inequities in transportation access and mobility worse, it is imperative that issues of affordability, accessibility, and inclusion be addressed.

4.3 Potential strategies for overcoming these challenges

Collaboration and Regulatory Reform:

Simplify Regulations: In order to ensure uniformity, transparency, and adaptability among various areas and transportation modes, policymakers should endeavor to simplify the regulations controlling mobility solutions. This can ease the burden of compliance and promote the creation and application of cutting-edge technologies.

Establish Standards and rules: To create industry standards and rules for cutting-edge technology like shared mobility services, drones, and autonomous cars, regulatory bodies should work with industry

stakeholders. Unambiguous standards can promote innovation and competition while provide a foundation for responsible and safe deployment.

Infrastructure Investment:

Public-Private Partnerships: In order to finance infrastructure modernization and improvements that facilitate the implementation of mobility solutions, governments and businesses in the private sector should work together. Public-private partnerships have the potential to expedite infrastructure construction and bridge crucial gaps in transportation networks by utilizing resources, knowledge, and finance.

Emphasis on Connectivity: To enable the connectivity and interoperability of mobility solutions, infrastructure expenditures should prioritize digital connectivity, including broadband growth and the deployment of IoT networks. This can enhance stakeholder coordination, infrastructure, and vehicle data gathering and communication.

Collaboration and Innovation in Technology:

Encourage Open Standards: To encourage open standards and interoperable technology in mobility solutions, industry stakeholders should work together. Open standards can promote cooperation, interoperability, and creativity across many stakeholders and systems, allowing for smooth integration and scaling.

Invest in R&D: To advance important technologies like blockchain, IoT, and AI in logistics and transportation, governments, universities, and businesses in the private sector should all contribute to R&D projects. Investments in R&D can solve technical issues, advance performance, and spur technological innovation.

Financial Rewards and Assistance:

Provide Funding Opportunities: Grants, subsidies, and financing possibilities should be made available by governments to encourage the study, creation, and implementation of mobility solutions, especially for startups and small and medium-sized businesses (SMEs). Programs for funding can lower financial obstacles and promote experimentation and innovation.

Provide Tax Incentives: Businesses can be encouraged to invest in mobility solutions and environmentally friendly transportation systems by offering tax credits, exemptions, and incentives. Tax benefits for acquiring electric cars, setting up infrastructure for charging them, and funding research and development can boost demand and hasten acceptance.

Engagement and Education of Stakeholders:

Community Engagement: To get input, answer issues, and increase support for mobility solutions, interact with advocacy groups, stakeholders, and local communities. Open dialogue and community involvement can reduce resistance, build trust, and encourage adoption of new technologies.

Education and Training: Offer educational and training initiatives that will give employees the know-how to adjust to changing technologies and positions in the logistics and transportation sector. Putting money into workforce development can help minimize the possibility of job displacement and guarantee a seamless transition to mobility solutions.

Talk about Social and Ethical Issues:

Encourage Social Safety Nets: To help workers displaced by automation and digitization in transportation and logistics, put in place social safety nets, retraining programs, and income support mechanisms. Putting money into social protection programs can help impacted people and communities while reducing the negative effects of technology change.

Encourage Inclusive Design: When creating mobility solutions, keep accessibility and inclusivity in mind to make sure they satisfy the needs of a range of demographics, such as the elderly, the disabled, and those with limited financial resources. The integration of universal design principles has the potential to improve transportation systems' usability, accessibility, and equity.

Chapter - 5**Research Methodology****Research Design:**

This approach aims to understand and interpret the impacts of mobile devices in supply chain and logistics. When researchers use this approach they want to understand deep or inner understanding of the challenges and opportunities brought by mobility solutions. Mostly used on supply and logistics companies around the world. This study will be focusing of Ekart Logistics, Amazon India, India Mart and Alibaba Group. This is done by naturalistic methods of study, analyzing conversations and interactions that researchers have with subjects.

Exploratory Research: Investigate Current Mobility Situation in Transportation and Logistics Investigate Current Mobility Situation in Transportation and Logistics, including Industry Trends, New Technologies, and Regulatory Environment.

Descriptive Research: Using case studies, industry reports, and previously published literature, describe and analyze the salient features, difficulties, and possibilities related to mobility solutions.

Explanatory Research: Examine the links between technology, policy, and business practices in order to understand the causal relationships and underlying factors driving the acceptance and implementation of mobility solutions.

Data Collection Methods:

Literature Review: Conduct a thorough examination of the literature in order to compile the theories, empirical investigations, and research that have already been done on mobility solutions in logistics and transportation.

Surveys and Interviews: Use surveys and interview industry professionals, decision-makers, and interested parties to learn more about their viewpoints, experiences, and difficulties with mobility solutions.

Case Studies: Examine the triumphs, failures, and lessons learned from the analysis of real-world case studies and pilot projects involving the implementation of mobility solutions in logistics and transportation.

Secondary Data Analysis: To enhance primary data and set the study's context, examine secondary data sources such as government reports, trade journals, and statistics databases.

Methods of Data Analysis:

Qualitative Analysis: To find patterns, themes, and trends in the information gathered from literature rev-

views, interviews, and case studies, apply qualitative analysis techniques including thematic coding, content analysis, and narrative synthesis.

Quantitative Analysis: Regression modeling, statistical analysis, and data visualization are examples of quantitative analytic techniques that can be used to quantify correlations, test hypotheses, and validate conclusions drawn from secondary sources and survey data.

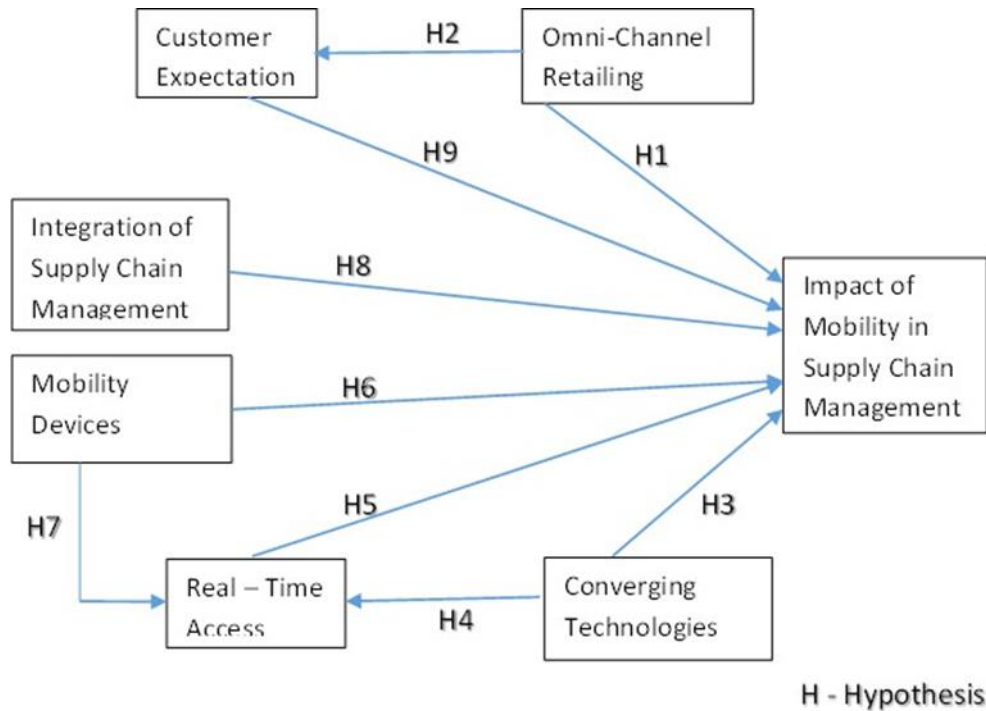


Figure 15

Ethical Considerations:

Informed Consent: Obtain informed consent from study participants, making sure that their participation is voluntary and that their answers are kept private.

Privacy Protection: Comply with ethical standards and data protection laws to preserve the privacy and confidentiality of sensitive information that is gathered during the study process.

Transparency: Throughout the research process, uphold honesty and transparency by honestly reporting findings and disclosing any biases or study constraints.

Verification and Trustworthiness:

Triangulation: To increase the validity and reliability of the research, use triangulation techniques to corroborate findings from diverse data sources and methods.

Peer Review: To guarantee rigor and credibility in the study technique and conclusions, get input and confirmation from peers, advisors, and subject matter experts.

Pilot Testing: Prior to full-scale implementation, carry out pilot testing of data collection tools and analytic methods in order to find and fix any problems or constraints.

Reporting and Spreading:

Research Report: Following academic and professional guidelines, prepare a thorough research report

that details the study's methodology, findings, conclusions, and suggestions.

Publication and Presentation: To spread information and contribute to the larger conversation on mobility solutions in transportation and logistics, present research findings at conferences, seminars, and workshops. You should also look for chances for publishing in academic journals, industry publications, and policy briefs.

Sampling Method: The researcher is going to use Quota sampling, sometimes considered a type of purposive sampling, and is also common. In quota sampling, the researcher decides while designing the study how many people with which characteristics to include as participants. Characteristics might include age and place of residence.

Population: In this research, the researcher will use different group of online app users like students in Gujarat to conduct the research.

Data Analysis:

To model the primary data collected, the ADANCO statistical tool was used. ADANCO (a structural equation modelling tool) is capable of modeling variance based structural equations, postulate hypotheses and in-turn construct a research framework. The analysis was carried out in two stages:

Stage 1 – Structural model was estimated through modelling.

Stage 2 – Reliability and validity were measured to determine the best model fit

Table 1: Overall reliability

Construct	R ²	Jöreskog's rho (ρ_c)	Cronbach's alpha(α)	Average variance extracted (AVE)
Impact of Mobility in SCM	0.7610	0.9468	0.9297	0.7807
Omni-Channel Retailing		0.9112	0.8539	0.7739
Converging Technologies		0.8804	0.7284	0.7864
Integration of Supply Chain		0.9162	0.8171	0.8454
Real-Time Access	0.7314	0.9106	0.8528	0.7725
Mobility Devices		0.9107	0.8692	0.7183
Customer Expectation	0.6214	0.9380	0.9117	0.7909

Convergent Validity

Convergent validity measures the construct validity through conformity scores. The average variance extracted should be equal to or above 0.5 to be acceptable (Chin, 1998). As per Table 2, below, the minimum AVE value is 0.7183. This satisfies the measurement requirements of the research model.

Table 2: Convergent validity

Construct	Average variance extracted (AVE)
Impact of Mobility in SCM	0.7807
Omni-Channel Retailing	0.7739
Converging Technologies	0.7864
Integration of Supply Chain	0.8454
Real-Time Access	0.7725
Mobility Devices	0.7183
Customer Expectation	0.7909

Discriminant Validity

The Discriminant Validity gives detail of the degree of differentiation between the variables and comparison with the other constructs of the research. The Average Variance Extracted (AVE) of the other construct should be less than the square root of the AVE from a particular construct (Fornell & Larcker, 1981). Table 3, below, establishes that the model has discriminant validity.

Table 3: Discriminant validity

Construct	Impact of Mobility in SCM	Omni-Channel Retailing	Converging Technologies	Integration of Supply Chain	Real-Time Access	Mobility Devices	Customer Expectation
Impact of Mobility in SCM	0.7807						
Omni-Channel Retailing	0.7055	0.7739					
Converging Technologies	0.5913	0.6555	0.7864				
Integration of Supply Chain	0.5564	0.5655	0.5909	0.8454			
Real-Time Access	0.6099	0.6447	0.6557	0.6306	0.7725		
Mobility Devices	0.6428	0.6838	0.6447	0.6161	0.6629	0.7183	
Customer Expectation	0.5809	0.6214	0.5893	0.5846	0.6062	0.6304	0.7909

Squared correlations; AVE in the diagonal.

Table 4: Significance level

	Significance level	t-value
Level of Significance	P < 0.1	1.65
	P < 0.05	1.96
	P < 0.01	2.59

In this research nine hypotheses were postulated and their reliability was tested. Table 5, below, shows the recorded t-values of the independent variables on the dependent variables.

Table 5: Outcomes of the hypothesis testing

Hypothesis	Effect	Path Coefficient (Beta)	Mean value	Standard error	t-value	Supported
H1	Omni-Channel Retailing -> Impact of Mobility in SCM	0.4159	0.4128	0.0701	5.9356	Yes
H2	Omni-Channel Retailing -> Customer Expectation	0.7883	0.7805	0.0520	15.1679	Yes
H3	Converging Technologies -> Impact of Mobility in SCM	0.0626	0.0612	0.0639	0.9793	No
H4	Converging Technologies -> Real-Time Access	0.4392	0.4303	0.0611	7.1896	Yes
H5	Real-Time Access -> Impact of Mobility in SCM	0.1131	0.1125	0.0670	1.6872	Yes
H6	Mobility Devices -> Impact of Mobility in SCM	0.1701	0.1707	0.0751	2.2660	Yes
H7	Mobility Devices -> Real-Time Access	0.4615	0.4655	0.0602	7.6721	Yes
H8	Integration of Supply Chain -> Impact of Mobility in SCM	0.0891	0.0905	0.0588	1.5154	No
H9	Customer Expectation -> Impact of Mobility in SCM	0.0950	0.0961	0.0543	1.7496	Yes

Theoretical support

This research provides a new description for the SCOR model incorporating mobility and supply chain management. The original SCOR (Supply-chain operations reference model) is given in Figure 16 below:

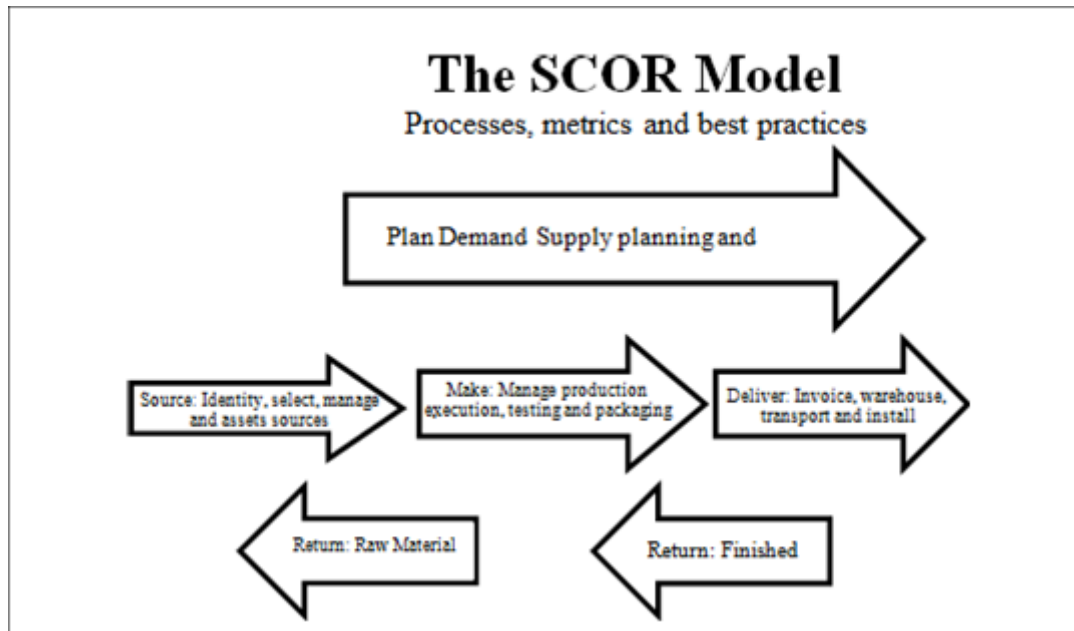


Figure 16: The SCOR Model

Findings

Technological Facilitators:

Emerging Technologies: With potential for more efficiency, transparency, and innovation, blockchain, IoT, AI, and other cutting-edge technologies are enabling revolutionary advances in logistics and transportation.

Interconnectivity: Real-time monitoring, decision-making, and optimization are made possible by the seamless communication and data interchange that these technologies' integration allows between vehicles, infrastructure, and stakeholders.

Obstacles and Difficulties:

Regulatory Complexity: Adoption and execution of mobility solutions are hampered by complicated and inconsistent rules, which call for a defined set of norms and guidelines to be followed.

Infrastructure Restraints: Particularly in rural and isolated places, inadequate infrastructure—including digital connectivity and charging infrastructure—presents problems for scalability and efficacy.

Technological Constraints: Adoption efforts are hampered by interoperability problems, cybersecurity threats, and high upfront costs, which call for cooperative solutions and expenditures in research and development.

Possibilities for Working Together:

Public-Private Partnerships: Working together, governments, business leaders, and academic institutions may stimulate investment and innovation in infrastructure, research, and policymaking.

Cross-Sector Collaboration: By working together, industries like telecommunications, energy, and transportation may develop integrated solutions that tackle several problems at once and create synergies.

Effect on Resilience and Sustainability:

Environmental Benefits: Mobility options that promote environmental sustainability in transportation, such as shared mobility services and electric automobiles, help cut carbon emissions.

Resilience: By enabling adaptive responses to disruptions like natural disasters, supply chain interruptions, and pandemics, mobility solutions improve the resilience of transportation and logistics networks.

Economic and Social Repercussions:

Job Creation and Displacement: Mobility solutions have the ability to disrupt old roles and generate new job possibilities in areas like technology development and maintenance, but they also require workforce adaptation and reskilling.

Equitable Access: Addressing social equality and fostering inclusive economic development require ensuring equitable access to mobility solutions for all communities, particularly marginalized and vulnerable people.

Future Trends and Scenarios:

Rapid Innovation: The pace of innovation in mobility solutions is accelerating, driven by advances in technology, changing consumer preferences, and evolving regulatory frameworks.

Future Scenarios: Scenarios such as autonomous vehicles, mobility as a service (MaaS), and smart cities present exciting possibilities for the future of transportation and logistics, requiring proactive planning and adaptation to realize their potential benefits.

Convenience and the customer experience:

Enhanced Mobility Services: Mobility solutions improve accessibility for customers of all ages and abilities, cut down on travel times, and offer convenient, on-demand transportation services. All of these factors contribute to a better customer experience.

Personalization: Ride-sharing and micro-mobility services are examples of personalized mobility services that give flexibility and choice in terms of modes of transportation while also catering to the tastes and needs of individual users.

Competitiveness and Economic Growth:

Innovation Ecosystem: The uptake of mobility solutions creates an innovation ecosystem that boosts employment, entrepreneurship, and economic expansion, increasing the industry's competitiveness and drawing in capital for the logistics and transportation sector.

Global connection: By enabling smooth cross-border logistics, supply chain integration, and transportation, mobility solutions improve global connection and trade while opening up new markets and business prospects.

Conclusion

In summary, research on mobility solutions in logistics and transportation shows a world full of chances

for creativity, productivity increases, and sustainable growth. We have investigated the revolutionary potential of cutting-edge technologies like blockchain, the Internet of Things (IoT), and artificial intelligence (AI) and its implications for the future of logistics and transportation throughout our study trip.

To enable the general adoption and deployment of mobility solutions, a number of obstacles and problems have also been revealed by our analysis. Policymakers, industry stakeholders, and researchers must work together to overcome major challenges such as regulatory restrictions, infrastructure limitations, technology constraints, financial barriers, and societal issues.

Proactive actions and cooperative methods are necessary to overcome these obstacles. Encouraging open standards, investing in infrastructure upgrades, streamlining laws, offering financial incentives, and interacting with communities are just a few strategies that can help facilitate the effective implementation and integration of mobility solutions.

Flipkart has a very strong and well-rounded marketing plan; of course, it also helps that companies with the financial wherewithal to support such campaigns are well-funded. The finest part about Flipkart is their excellent cross-platform messaging transmission. These are the key lessons I learned from Flipkart as a marketer:

Flipkart recognizes the importance of influencer marketing and star power in India and doesn't hesitate to leverage these channels to drive traffic and views. The company also places a lot of emphasis on visual commercials, including creatives, videos, and reality television. • Multichannel advertisements are fantastic; as a fashion business, this is fantastic and demonstrates that they understand both their audience and their goods. As Flipkart operates

In addition, our data analysis work has yielded insightful information on the future directions, impact factors, and adoption patterns of mobility solutions in logistics and transportation. We have a thorough grasp of the potential and difficulties the industry faces thanks to the application of both qualitative and quantitative approaches.

In conclusion, the promise of revolutionary transformation illuminates the path ahead, despite the fact that it may be paved with hurdles. Through the utilization of mobility solutions and the promotion of cooperation, creativity, and flexibility, we can establish a transportation and logistics network that is more effective, long-lasting, and inclusive for all. The journey towards mobility excellence has only just begun, and together, we can navigate towards a brighter future.

References

1. Abby Jenkins, Supply Chain Management vs. Logistics: Differences, Similarities and Roles, Oracle NetSuite, July 25, 2022
2. Dr. Jean-Paul Rodrigue (1998-2022), the Evolution of Supply Chain Management, Hofstra University, New York, USA,
3. Halzack, Sarah (9 May 2018). "Walmart Is Right on Flipkart Despite Investor Qualms".
4. Sharma, Nishant (23 March 2018). "This Is Why Amazon Hasn't Beaten Flipkart In India Yet". Bloomberg Quint.
5. Tandon, Suneera. "Why Walmart bought Flipkart, according to Walmart". Quartz.
6. The Economic Times. 9 September 2014.
7. <https://www.indiamart.com>
8. <https://corporate.indiamart.com/latest-updates/page/2/>

9. Kissflow Procurement Cloud 14.09.2022
10. <https://www.shopify.com/in/encyclopedia/manufacturing>
11. Meg Prater, Definition of selling, <https://blog.hubspot.com/sales/definition-of-selling>
12. <https://nulab.com/learn/collaboration/how-to-set-strategic-goals-with-73-examples-you-can-steal/>
13. MHI the Industry that Makes Supply Chains Work <https://www.mhi.org/fundamentals/material-handling>
14. Soroka (2002) Fundamentals of Packaging Technology, Institute of Packaging Professionals
15. <https://www.bbc.com/news/business-22780571> 5 June 2013
16. Chirstopher Martin, Logistics and Supply Chain Management, Pitman Publishing Co London, 2000.
17. David Simchi Levi, Philip Kamisky and Edith Simchi Levi (2000), Designing and Managing the Supply Chain, Irwin Mc Graw Hill, New York.
18. Logmore Blog, a Short History of Supply Chain Management, 2 April 2019
19. Blumeglobal.com, 10 April 2019 <https://www.blumeglobal.com/%2Flearning%2Fhistory-of-supplychain%2F> HYPERLINK
20. "https://www.blumeglobal.com/learning/history-of-supplychain/%26psig=aovvaw2uwk4gekduqn3ay9qkvtgm%26ust=1664569831215146/" HYPERLINK
21. "https://www.blumeglobal.com/learning/history-of-supply-chain/ HYPERLINK
22. Handfield, R., and Nichols, E. (1999). Introduction to Supply Chain Management. Upper Saddle River, NJ: Prentice Hall.
23. NASSCOM Industry Partnership Program (NIPP) Mobility Challenge, supported by 10,000 Startups 06-Jun2022).
24. Aziz and Sherzod, IOSR Journal of Business and Management (2014)
25. Ganeshan, R., Harrison, T. P. (1995). Department of Management Science and Information Systems, Penn State University.
26. Lee Hau L., and Corey Billington, "The Evolution of Supply-Chain-Management Models and Practice at Hewlett-Packard.
27. Interfaces", (25), 5 September-October, 1995.
28. Caridi, et al., (2010). Do virtuality and complexity affect supply chain visibility? International Journal of Production Economics 127(2):372-383.
29. Timothy J. Pettit, J. Fiksel, Keely L. Croxton, (2010), Ensuring Supply Chain Resilience: Development of A Conceptual Framework, Journal of Business Logistics.
30. Fawcett, S. E., Ellram, L. M., & Ogden, J. A. (2007). Supply chain management: From vision to implementation. Upper Saddle River, NJ: Pearson Prentice Hall.
31. Kayakutlu & Buyukozkan, (2010); assessing performance factors for a 3PL in a value chain, International Journal of Production Economics 131(2).
32. Stonebraker, P. W., & Afifi, R. (2004). Toward a contingency theory of supply chains. Management Decision, 42 (9).
33. Fawcett, S.E., Osterhaus, P., Magnan, G.M., Brau, J.C., & McCarter, M.W. (2007). Information sharing and supply chain performance: The role of connectivity and willingness. Supply Chain Management: An International Journal 12(5).
34. Ketchen Jr., D.J. and Hult, G.T.M. (2007) Toward Greater Integration of Insights from Organization Theory and Supply Chain Management. Journal of Operations Management, 25.

35. Barratt, M. and Oke, A. (2007) Antecedents of Supply Chain Visibility in Retail Supply Chains: A ResourceBased Theory Perspective. *Journal of Operations Management*, 25.
36. Simchi-Levi, David, Kaminsky, Philip, Simchi-Levi, Edith (2004), *Managing the Supply Chain: The Definitive Guide for the Business Professional*, McGraw-Hill Education.
37. Nitin Lahoti in Blog Posted December 16, 2019.

Bibliography

1. Aziz and Sherzod, *IOSR Journal of Business and Management* (2014)
2. Barratt, M. and Oke, A. (2007) Antecedents of Supply Chain Visibility in Retail Supply Chains: A ResourceBased Theory Perspective. *Journal of Operations Management*, 25.
3. Blumeglobal.com, 10 April 2019 <https://www.blumeglobal.com%2Flearning%2Fhistory-of-supplychain%2F&psig=AOvVaw2uWk4GEkDuqN3AY9qkvTgM&ust=1664569831215146>
4. Caridi, et al., (2010). Do virtuality and complexity affect supply chain visibility? *International Journal of Production Economics* 127(2).
5. Fawcett, S.E., Osterhaus, P., Magnan, G.M., Brau, J.C., & McCarter, M.W. (2007). Information sharing and supply chain performance: The role of connectivity and willingness. *Supply Chain Management: An International Journal* 12(5).
6. Fawcett, S. E., Ellram, L. M., & Ogden, J. A. (2007). *Supply chain management: From vision to implementation*. Upper Saddle River, NJ: Pearson Prentice Hall.
7. Form F-1 REGISTRATION STATEMENT Alibaba Group Holding Limited". Archived from the original on 4 January 2021. Retrieved 25 December 2020.
8. Ganeshan, R., Harrison, T. P. (1995). Department of Management Science and Information Systems, Penn State University.
9. Halzack, Sarah (9 May 2018). "Walmart Is Right on Flipkart Despite Investor Qualms".
10. Handfield, R., and Nichols, E. (1999). *Introduction to Supply Chain Management*. Upper Saddle River, NJ: Prentice Hall.
11. <https://www.shopify.com/in/encyclopedia/manufacturing>
12. <https://www.indiamart.com>
13. https://en.wikipedia.org/wiki/Alibaba_Group
14. <https://nulab.com/learn/collaboration/how-to-set-strategic-goals-with-73-examples-you-can-steal/>
15. <https://corporate.indiamart.com/latest-updates/page/2/>
16. *Interfaces*", (25), 5 September-October, 1995.
17. Jenkins Abby, Supply Chain Management vs. Logistics: Differences, Similarities and Roles, Oracle NetSuite, July 25, 2022
18. Kayakutlu & Buyukozkan, (2010); Assessing performance factors for a 3PL in a value chain, *International Journal of Production Economics* 131(2).
19. Ketchen Jr., D.J. and Hult, G.T.M. (2007) Toward Greater Integration of Insights from Organization Theory and Supply Chain Management. *Journal of Operations Management*, 25.
20. Kissflow Procurement Cloud 14.09.2022.
21. Lahoti Nitin in Blog Posted December 16, 2019
22. Lee Hau L., and Corey Billington, "The Evolution of Supply-Chain-Management Models and Practice at Hewlett-Packard.

23. Levi David Simchi, Philip Kamisky and Edith Simchi Levi (2000), Designing and Managing the Supply Chain, Irwin Mc Graw Hill, New York.
24. Logmore Blog, a Short History of Supply Chain Management, 2 April 2019
25. Martin Chirstopher, Logistics and Supply Chain Management, Pitman Publishing Co London, 2000.
26. McClay, Rebecca (25 July 2017). "10 Companies Owned by Alibaba". Investopedia. Archived from the original on 30 March 2019. Retrieved 3 December 2017.
27. MHI the Industry that Makes Supply Chains Work <https://www.mhi.org/fundamentals/material-handling>
28. NASSCOM Industry Partnership Program (NIPP) Mobility Challenge, supported by 10,000 Startups 06-Jun2022).
29. Nishant Pettit Timothy J., J. Fiksel, Keely L. Croxton, (2010), Ensuring Supply Chain Resilience: Development Of A Conceptual Framework, Journal of Business Logistics.
30. Prater Meg, Definition of selling, <https://blog.hubspot.com/sales/definition-of-selling>
31. Rodrigue Simchi-Levi, David, Kaminsky, Philip, Simchi-Levi, Edith (2004), Managing the Supply Chain: The Definitive Guide for the Business Professional, McGraw-Hill Education,
32. Soroka (2002) Fundamentals of Packaging Technology, Institute of Packaging Professionals
33. <https://www.bbc.com/news/business-22780571> 5 June 2013
34. Stonebraker, P. W., & Afifi, R. (2004). Toward a contingency theory of supply chains. Management Decision, 42 (9).
35. The Economic Times. 9 September 2014.
36. Jean-Paul (1998-2022), the Evolution of Supply Chain Management, Hofstra University, New York, USA,
37. Sharma, (23 March 2018). "This Is Why Amazon Hasn't Beaten Flipkart In India Yet". Bloomberg Quint.
38. Suneera Tandon. "Why Walmart bought Flipkart, according to Walmart". Quartz.

Plagiarism report



Date: Fri, Apr 12, 2024 Word Count: 1062

Exclude Url:	No	Records Found	26
--------------	----	---------------	----

97%	3%	0%
Unique Content	Plagiarized Content	Paraphrase

Content Checked For Plagiarism:

The Impact of Mobility Solutions on Logistics & Supply Chain Management For the partial fulfilment of the requirement For the award