

# Digitalization in Supply Chain are Changing the Dynamics of Business

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## Abstract:

This research paper provides an indepth study on the field of automation and digitalization in supply chain management (SCM) in the textile industry. The study, which compares traditional methods with digital methods, aims to shed light on the development of technology in this field.

## Methodology/Design:

The researcher conducted interviews using a qualitative method to gather information about the state of supply chain management in the textile industry. Through these interviews, the study aims to identify current challenges and opportunities, using evidence to inform future recommendations.

## Research:

Research shows that the textile industry faces many challenges in achieving its goals in terms of products through the always on process. Research participant highlighted several problems and issues, noting the weaknesses of the traditional SCM model. In this context, this article proposes the use of modern models, techniques and strategies to solve these problems. He believes that the use of new technology is essential to make the SCM process more efficient.

## Value/Value:

This study provides a better understanding of supply chain management by comparing traditional and modern supply chain management practices. Evolution of SCM in the textile industry. It demonstrates continuous digitalization efforts in its field and offers a modern material management model that can improve the quality of the supply chain. Overall, this study leads to a deeper understanding of the benefits of technology in textile supply chain management.

**Introduction:**

Supply chain management (SCM) is a complex network that connects a company to its suppliers and customers, including all the complex processes involved in transforming raw materials into finished products. There are many functions in this network, including sales, sourcing, procurement, delivery, production and customer service. Essentially, SCM requires management, integration, and planning to facilitate the flow of information, data, and resources; Ultimately, it provides the entire process of converting raw materials into products and sending them to the terminal to stakeholder's user. This includes collaboration, demand forecasting, inventory management, information sharing, risk mitigation and continuous improvement of processes for efficiency, cost reduction and compliance based on customer needs. At its core, SCM is the foundation of operations that ensures all aspects of the supply chain work together to deliver value to customers while running business.

**Background:**

The text discusses the key benefits of Supply Chain Management (SCM) and the business impact of digital transformation, especially in the context of the textile industry. It demonstrates the importance of SCM in facilitating faster work and providing a clear process to meet the customer's needs. First of all, SCM enables companies to work faster by integrating all products, manufacturers, suppliers, retailers and customers. Production, purchasing and sales cycle. Good management of the supply chain is important because it is affected by factors such as the environment and oil prices. Effective SCM provides tight control of production, inventory, distribution, warehouse and sales information, saving costs and enabling faster delivery of used goods to customers.

In addition, the text highlights the importance of digital transformation and information and communications technology (ICT) to improve performance, stimulate re-employment and foster better jobs. Digitalization can improve productivity, evidence-based decision-making and re-evaluate customer relationships, enabling sustainable growth and business transformation. Additionally, SCM also plays an important role in business planning and future developments such as international expansion. By building relationships with suppliers, companies can meet the needs of the business and improve customer service. For example, direct delivery from farmers provides better products and faster delivery to customers, ultimately increasing profits and reducing operating costs. Relevant topics listed in the article are related to the issues and challenges faced by the textile industry in adopting new SCM in . It aims to investigate the impact of various technologies, such as the Internet of Things and various distribution methods, on materials. In addition, the study investigates the differences between traditional and digital products and evaluates infrastructure development areas. The study aims to identify shortcomings of existing equipment by analyzing primary and secondary data and recommend better solutions, including digitalization and the use of centralized solutions, to ensure information is accurate and retained throughout the delivery process.

## **Problem Statement**

The presentation highlights the significant impact of digitalization and technology on today's business world, especially in the context of supply chain management (SCM). It highlights the need for businesses to adapt to technological changes to remain competitive in their operations. As companies increasingly integrate digitalization and advanced technology into their logistics operations, those who do not will be excluded from the market and disappear. Furthermore, the report shows that the supply chain does not have the capacity to keep up with rapid changes in the market, while also recognizing the potential of technological integration technology to increase efficiency and effectiveness. Considering the special situation of as a developing country, the process of science and technology has been slow. Therefore, this study focuses on the issues affecting the adoption of Industry 4.0 technology and evaluates how many variables such as technology, Internet of Things (IoT), international trade and distribution affect businesses in in many aspects. In addition, the text emphasizes the importance of transferring traditional processes and digital processes in organizations, especially when they are transformed into digital processes. This includes identifying areas for infrastructure and operational improvement that address current needs or gaps in supply chain management. Key factors for businesses moving towards digital supply chains include supply and demand planning, infrastructure development, risk assessment and process improvement. It was determined to address issues such as forecast errors and uncertainties in the supply chain. Digital devices are also known for their ability to improve access to and capture of information, delivering better, valid paper to employees and customers. The shift to data-driven and digital products is designed to meet customers' needs for choice, convenience and control, ultimately improving the overall customer experience.

In summary, this article highlights the importance of embracing digitalization and advanced supply chain management to remain competitive in today's business world. It highlights the need for organizations to solve digital adoption challenges to close the gap between traditional and digital processes and prioritize activities that improve chain metal quality and customers.

## **Purpose of Study**

This study aims to investigate the differences between modern products and digital products, especially in the textile industry. By conducting this research, the main aim is to identify and understand existing gaps in business processes and digital products. The use of new technologies is becoming more common in today's business environment. This technology has the potential to revolutionize supply chain management by increasing efficiency, improving visibility

and improving overall performance. But it's important to understand how these changes translate into benefits for businesses and consumers. This research involves modeling traditional and digital materials to facilitate in-depth analysis. The analysis will analyze various aspects of the textile industry and examine aspects such as inbound and outbound logistics, inventory management, distribution and customer service.

The purpose of digital development is to realize that digitalization has the ability to improve important functions of the supply chain. By using technology, companies can increase efficiency, reduce costs, shorten delivery time and ultimately achieve better delivery plans.

In addition, this study aims to establish a connection between the purposes of the material and the use of old models compared to digital models. This study focuses on gaining a good understanding of the comparative advantages and limitations of each method, evaluating which is compatible with the overall goal of meeting customer needs and achieving the company's goals.

### **Delimitation**

The current research will specifically focus on comparing the model and digital model of the chain with its application features in the textile industry. By focusing on these two different approaches, the study aims to make a meaningful comparison to clarify why companies may choose to adopt a digital supply chain over a traditional product. To facilitate these comparisons, standards, procedures and performance measurements related to digital standards and products will be carefully examined in the study. By explaining the main differences between the two approaches, the study will try to reveal the principles that direct companies to digitalization. A significant part of this study will measure the difference between current supply and expected conditions. By identifying these gaps, researchers can understand areas where traditional businesses cannot meet the changing needs and expectations of the textile industry. The analysis will also help to see the benefits and advantages that digitalization can provide in closing these gaps and supporting supply chain improvements. Additionally, this study will show how textile companies can achieve their business goals through digitally enhanced products. Research by examining specific initiatives such as cost reduction, lead time optimization, inventory management and customer satisfaction will show that technology Digital output can be most effective in these areas.

In general, this research aims to understand the comparative advantages of digital product models and traditional product models in the textile industry. By explaining the reasons for using the digital supply chain, evaluating existing gaps and discussing improvement possibilities, the study will provide recommendations that can guide good decision-making and efficient supply chain management in the textile industry.

## **Literature Review**

A literature review on the textile industry's digitalization of supply chain management will be presented in this chapter. The textile industry, its role in supply chain management, its traditional and contemporary structure, and the digitization of supply chain management's inbound and outbound supply chain models—all of which are connected to our research questions—will be the focus of this chapter. The supply chain and management define the logistic processes of the in bond and out bond. The supply chain management process is discussed in this literature. The key concepts are then discussed, and the previous study on the digitalization of supply chain management and its components is reviewed. The supply chain model and the supply chain management process will be discussed at the end of this chapter.

## **Supply chain system in the Textile Industry**

Historical supply chain management has been defined by a variety of researchers in a variety of settings. According to Dujak (2019), some researchers are of the opinion that the term also refers to the process of tracking information within and between businesses. The logistics process and information planning and management are also referred to by this term (Wieland, 2021; Saberi et al., 2019). According to Tiwari, Hui-Ming, and Yosef (2018), a few researchers have also identified concepts and issues associated with consumer management. From 1982 to the present, various researchers have defined management supply chain in a variety of ways. Desai and co. 2016) gives the following definition of supply chain management: From suppliers to businesses that provide final goods and services, the integration of key management functions adds value. Product as it stands (Muhamedjanova and A., 2020). According to Christopher and Matthias (2017), "the process of planning, implementing, and managing supply chain operations to be as good as possible in order to meet customer requirements" is the definition of supply chain management. According to Muhamedjanova et al. (2020), supply chain management encompasses the entire flow and storage of raw materials, semi-finished products, and finished goods from production to consumption. The significance of materials management in the textile industry has been discussed by numerous researchers. According to previous research (Oelze N., 2017), supply chain management plays a significant role in the operations of clothing and textile companies. According to Lee, E. (2017), these businesses have implemented numerous strategies to enhance internal and external controls and supply chain management. They employ a variety of approaches, including the management control procedure, reading strategies, investment, performance evaluation, and environment sustainability. According to Shen, Qingying, Ciwei, and Patsy (2017), who looked at 15 relevant articles, these methods all play a significant role in textile industry materials management processes. Marketing and the textile industry both rely heavily on the processes of the supply chain (Tseng, K. Lim, Kuo, and Wong, 2019).

The textile industry's supply chain serves as a model for the exit and storage of raw materials. In addition, this procedure improves customer satisfaction and creates opportunities for the supply chain. (2018) (Kouhizadeh and Joseph). The textile industry benefits from the new digitalization process because new information and ideas can boost the company's value.

### **Digitalization in Supply chain of textile Industry:**

Digitalization is the process of improving a company's processes by introducing new technologies and procedures. Currently, the delivery process and the textile industry both require frequent consideration and digitalization. Using cutting-edge technologies like sensor networks and social technology, a central control center monitors delivery completion in a digital supply chain. After that, additional analytical data are used to verify this. In contrast to conventional equipment models, which lack visibility and control, digital equipment has a control tower to monitor the entire process. Traditional products only provide a brief supply chain overview; On the other hand, digital chain gives a complete view of the chain. Because of the classical model, information moves between individuals or businesses, information in traditional products often moves slowly. Digital information, on the other hand, is easier to access for all suppliers. In contrast to the traditional product model, the supply chain can work together simultaneously with multiple members of the supply chain. Low visibility throughout the process frequently hinders collaboration in traditional products. The value of the goods in the supply chain can rise as a result of the digital supply chain's ability to facilitate improved information sharing and natural collaboration. Since data flows to the equipment in the traditional equipment model, the process's requirements for the end user are unclear and inaccurate. However, improve the supply chain as a result of management's increased demand. The classic mode may be sluggish and unresponsive in terms of responsiveness. Digital offers can have an immediate impact when planned and carried out properly. All employees are exposed to new concepts and ideas thanks to this model and study. Numerous innovative new concepts have emerged from this situation, which is connected to the textile industry. Customers are pleased because stages 4P to 7P of SMM are still evolving. The model can be used to validate existing research models further. Additionally, this study revealed a variety of consumer behavior types. The study's outcome is the development of a variety of challenges and strategies for the textile industry. to provide employees and businesses with a positive vision (Othman, Amran, Nuno, and Zana, 2020). The textile industry's business procedures served as the basis for this study. Among important products, artificial intelligence can be used in sales and planning. The supply chain makes use of a variety of management strategies and capabilities. There are numerous major issues with businesses' equipment. According to Hofmann, Henrik, Haozhe, Alexander, and Gunter (2019), supply chain design is effective in providing service to all customers. The textile industry's various customers receive the best services from Supply Chain Management. For businesses with a wide range of information, management and operations have taken on greater significance. According to Makkonen and Hanna (2018), numerous nations and textile-related organizations have investigated and tested the limits of machine learning to

enhance performance. Additionally, it provides management of supply chain-related business intelligence. In the textile industry, logistics and management-related sub-problems can be solved by AI and machine learning algorithms. This research can help you make better decisions (Elbegzaya, 2020). Vijayendra Gupta et al. conducted a research study. Its main goal is to keep up with what's happening in the textile industry. The textile industry is also undergoing change over time due to digitalization, which is occurring in every aspect of life. According to Gupta and Gupta (2020), numerous researchers, the textile industry is undergoing transformation. The digitalization process can be physical, spatial, or functional, according to researchers. Changes and enhancements brought about by digitalization that can be controlled physically are referred to as "physical digitization." According to Banga and Banga (2020), the location entails being able to follow product advancements, changes, and improvements.

### **Traditional Structure of the Supply Chain Management System of the Textile Industry**

Mani et al.'s (2020) research focuses on the impact of supply chain management on business performance and explains the role of the supply chain in the growth of both small and large organizations. Khan et al. (2021) conducted research in a similar field. (2021) investigated the textile industry's supply chain management architecture. The textile industry's product management system is the focus of this study. According to Khan, Ishizakab, and Genovese (2002), the traditional textile industry's primary goal is to enhance supply chain management. Shen et al. (2017) conducted a recent investigation into the textile industry's supply chain management security concerns. They were taught traditional materials management techniques. Product management can be improved by positive factors like the company's strategy and performance, according to the author (Shen, Qingying, Ciwei, & Patsy, 2017). The following steps are included in traditional supply chain management strategies: A collection of raw data exists. The initial step of gathering raw materials contributes to the production of the final product. It could have one or more ingredients in it. Raw data can be gathered from a variety of sources. The gathering of raw data from suppliers is the next step. In order to gather data, manufacturers collaborate with vendors or other intermediaries. Production is the third step. Manufacturing is the process of starting and finishing all of the steps that go into making the final product.

### **New Opportunities to Traditional Management**

The digitalization of business presents regulatory management with new options. This article's primary objective is to develop novel control centers (Bhimani, 2020). New information shapes and updates digital marketing. This study relies on descriptive data from a variety of data systems to support its findings. (Anthony and Sobah, 2020) The business displays various products. To comprehend the digitalization-related differences between business and

management, films and videos are used. The company's overall performance will be affected by digital marketing (Sabrina, A. Maspupah, and F.R. Umbara, 2019). The fact that numerous forms of digital transformation in conventional management can boost productivity is one of the easiest conclusions. Based on the whole environment of effective processes and prediction, intelligent tools can meet the needs of organizations (Möller, Utz, and Frank, 2020). All digitalization-related processes are being transformed by mobility. Numerous business types will be impacted by these changes. Adapting to new operational issues or opportunities is made simpler by digitalization. Businesses' resources also suffer as a result of logistical issues like the transportation of goods through ports (Kohtamáki, Vinit, C. Patel, & Heiko, 2020). Businesses that operate digitally rely on technology. According to Bradmar (2017), the creation of digital business aims to improve existing businesses' efficiency.

### **Comparison of the Traditional and Modern Textile Industry**

The traditional and contemporary textile industries have been compared in numerous international studies. The evaluation of the global textile industry and supply chain management system are the primary goals of these studies (Khan, Ishizakab, & Genovese, 2021). Priya and Vishal's (2019) research focused on textile supply chain management. Two main aspects of supply chain management are the focus of this study. Inbound and outbound traffic are these terms. Material handling, the development of a supplier-to-organization and organization-to-customer network, customer service, product planning, and the order in which needs and demands are met are among these aspects. Additionally, this study revealed that technological advancements underpin modern supply chain management (Priya and Vishal, 2019). Another investigation by Kt et al. (2019) talks about how materials play a role in modern materials management. Concerning the risk factors associated with an organization's day-to-day supply chain management, they looked at a framework for incoming supply chain management systems. According to this study (Kt, Sama, and Talay, 2019), the electronic control system is the most significant factor in the textile industry's supply chain control system's production.

### **Application of Digital Technologies**

Technologies like digital printing and 3D printing are becoming more popular and in demand. The textile industry uses computer vision to enhance customer experience and product connectivity. Manufacturers are able to achieve long-term success thanks to these technology differences. To quickly meet business needs, many retailers ship products quickly. There is a dearth of in-depth research on this technology's application to the textile industry and marketing channel. It employs a variety of approaches (Rahman M., 2021). Various forms of digital design and

graphics are utilized. The textile industry's profits have increased as a result of numerous straightforward technologies. Using various types of technology to satisfy customers can open the door to business expansion. Through digital equipment and management systems, fashion designers, textile manufacturers, and suppliers can use 3D printing to create improved clothing designs. Using computer-aided design and manufacturing, designers can create complex and adaptable systems by utilizing 3DP technology. The number of people who approve of 3D printed products will also rise in tandem with the expansion of research. Strings are used to tie soft threads together in this way. Textiles can be 3D printed to make a variety of products. According to Rahman M. (2018), the application of cutting-edge technology in the production of clothing and textiles is now widely used and effective. At Chong, Bessie, researchers carried out the study. The purpose of this study is to track the steps that the global textile industry will take to use digital power to improve its workforce. Workers who are less familiar with digital and contemporary textile products are transformed into dependable and effective users of modern technology in this study. Staffing and digital incentives were compared and contrasted through A/B tests (Chong, 2019). A regression model is used to examine the effect of variables in this study. According to the findings of the research, digital support is a technological capability that will ensure the textile industry's success. Employee and employee engagement can be increased by implementing digital support. Honigsberg stated that organizations using digital services can implement digital standards. According to Hönigsberg, Dinter, and Wache (2020), digital communication technologies should be utilized to enhance the movement of textile materials. Martina looked into how the textile industry was affected by both old and new technologies. The purpose of this study was to identify and examine historical and factual factors that influence expectations regarding technology initiatives and models. The study of German textile production is one of the topics (Fromhold-Eisebith, Marschall, Peters, and Thomes, 2021). In order to keep track of production in the German textile industry, researchers employed a mixed method approach. The partners' meeting also aims to define how to use the most recent textile technologies. The research's findings and conclusions point to a variety of potential technologies for the textile industry. Also mentioned are our future circumstances and textile industry production policies. The textile industry in Germany should adopt Industry 4.0 technology because it has proven to be useful for digitalizing the industry. Dalmarco and others cited digitalization as the reason for changes in the textile industry brought about by 4.0 technology (Dalmarco and Barros, 2018).

### **Gaps in Textile Industry Supply Chain Management**

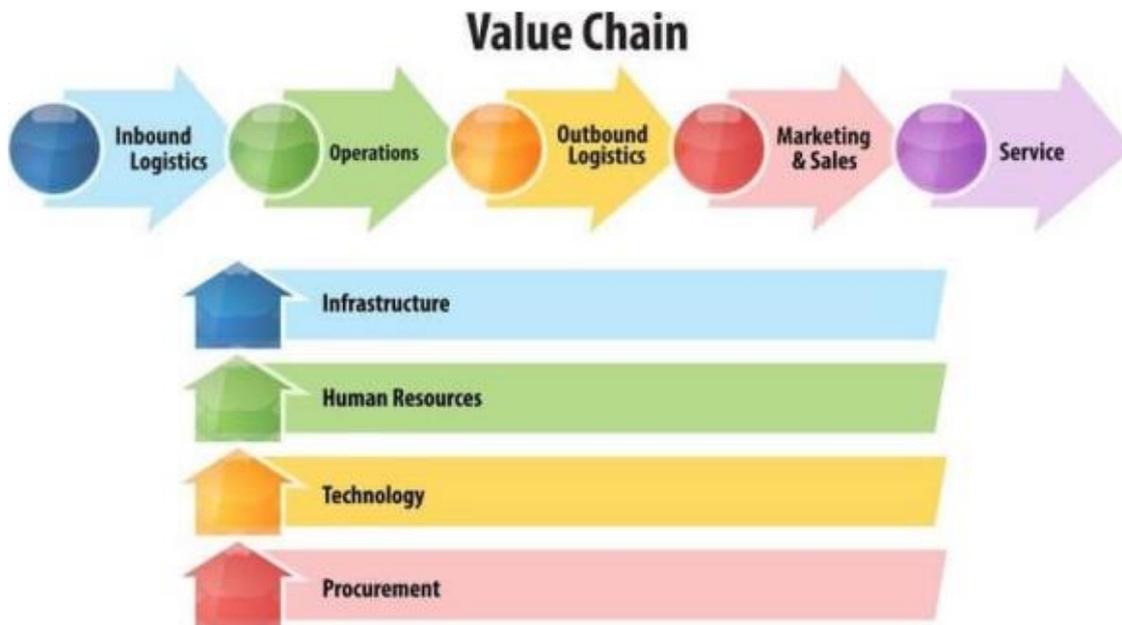
In many manufacturing sectors, technology selection remains a challenge. There were two distinct approaches taken for complex lamination technologies. The top of the company is affected by various approaches. empirical data from various textile industry technologies. AHP and various textile product technologies are among the index's various topics (Toräul, Turan, and Sandra, 2020). Technology is understood by organizations. The market is affected by product management options and technology. There is a possibility that the ideas and assessment strategies in training materials will be specific to the subject at hand and employ various approaches. Different technologies benefit from the decision-making process. Lamination is the purpose for the AHP machine. Different kinds of

technologies are used to create a lot of new products. Methods have been added to this machine by the manufacturer (Mondragon, Ernesto, Jung, & J. Hogg, 2019). In the textile industry, Kapustin et al. (2020) investigated the advantages and disadvantages of digitalization. The logistics units, logistics concepts, and digital center are discussed in this article. a number of centers that are related to technology and international logistics. In order to attract the greatest number of partners and customers, integration has a place in the global logistics system (Cichosz and A. Michael, 2020). Throughout the course of the study, research was conducted on a variety of public administration-related technologies and their potential to benefit from contemporary communication and digital security technologies. In this network, logistics has many advantages. The issue of creating large transportation hubs and logistics hubs. The objective is to streamline operations. According to Kapustina, Vladimir, Sergei, Egor, and Kseniya (2020), digitalization and process changes associated with the IT environment are beneficial to all nations and have tremendous potential. The impact of trade on the textile industry was discussed by BASHA (2017). The textile industry is very good for many developing and emerging economies. The significance of the textile industry to industrialization is explained in this study. Digitalization may result in significant profit losses for emerging and developing economies. Globalization, modernization, and technological advancement are destroying traditional regions worldwide (Ganeshbabu, P. Sundara, G. Paulraj, K. Jeganathan, and Ali, 2020). The digitalization process's logic and digitalization principles are frequently utilized in the textile industry. According to Mahmood and Muhammad (2020), new business models are required in the textile industry due to shifting consumer preferences and technological advancements. The textile industry's supply chain management was the subject of this study. The textile industry, employee compensation procedures, and customer service procedures have all been altered by digitalization. According to Morgan (2017), the manufacturing procedure is also connected to the organizations that make up the textile industry's value chain. The requirements of various kinds of customers are rising in tandem with the development of communication skills and the global business environment. Customers' digital accounts are associated with various forms of authentication. Processes for various textile-related businesses are developed in this study. According to Stjepanoviä, Ion, Paolo, Mirela, Luis, & Andreja (2017), this study develops a brand-new digital representation of various textile-related concepts. For this study, books, magazines, and other sources served as sources of data. The textile industry had an impact on the development of profitable business plans. It uses novel production techniques and provides customers with a variety of options (BASHA, 2017). Authors: JAIN, M. The goal of this study is to find out what challenges digitalization and uncertainty pose to the textile industry. The textile industry has been continuously disrupted by issues and ambiguities (JAIN, 2018). To provide a deeper understanding of the difficulties and issues confronting the textile industry, the article looks at secondary data. The findings point to a variety of issues that the textile industry pursues and faces. Atstaja talked about problems like textile machinery that doesn't change and people who don't know how to use production equipment. Atstāja, Cudeäka-Puria, Vesere, and äbele, 2021). According to the findings (JAIN, 2018), it is necessary to implement novel tools and methods in order to eradicate issues in the textile industry. The uncertainty that results from less data was the subject of another study by EssiKarell et al. The primary objective of this research is to assess how well recycling techniques have been developed and implemented worldwide in the textile industry. The development of technology and the use of

recycling to produce more textile products are two aspects that the authors of this study took into consideration (Karell and Niinimäki, 2019). The researcher used a qualitative methodology in this study and conducted a qualitative interview. The results emphasize the value and significance of proactive discussion, which provides a useful framework and consistent procedure. As a result, the textile industry's entire way of thinking needs to change to accommodate the changes. According to Bartl and colleagues, recycling technologies ought to be used to get rid of waste (Piribauer & Bartl, 2019). The aim of Snöfrid Börjesson Hero's research is to investigate the dynamics and interconnectedness of the textile industry. The primary objective of this article is to identify and track the impact of information on textile industry electronic products. The textile industry in Western Sweden's Västergötaland region is investigated. According to Herou (2018), Herou uses a number of myths to link worker data and research on the workplace. To improve the mobility and effectiveness of textile materials, research indicates that the Swedish textile industry must take into account all phases of the business life cycle. To properly increase the textile company's productivity, it is necessary to implement cutting-edge technology. Kirill emphasized the significance of textile modern technology and pointed out that it also improves productivity (Kirill, Bobir, & Ziedulla, 2018).

### **Variation Inbound Logistic and Outbound Logistic**

The first is used to enhance customer service and management of the supply chain. Through a variety of novel material applications, new concepts were generated. The production network is driving changes in the worldwide climate and economy of the material business (AYANTOYINBO and Adeolu, 2021). The delivery process continues between employees and customers through various channels. Digital marketing is connected to each of these steps in the textile industry. During the textile industry's industrialization, the online procedure was developed. The best customer service management practices are implemented in this manner (Barbosa, Ana, and José, 2020).



This study also examines the organizations involved in the internal and external distribution process. Supply chain is different from organization where all activities are related to the power of management (Nguyen, 2019). Consumers' needs are facilitated by sustainable development in the textile industry and the management of different supply chains (Kouhizadeh and Joseph, Blockchain Practices, Potential and Prospects in Green Supply Chains., 2018). A new idea emerged thanks to modern textile technology. Raw data on connectivity technology can be used in many immortal ways. New technology for the textile industry can be discovered if workers are compared with previous technology. This new approach provides a different approach to the textile industry and creates new plans and delivery methods (Gong, Fu, Steve, and Lenny, 2018). This work is based on the dynamic process of different materials. The textile industry has turned into a profitable business line and has established good social and technological relationships with customers. Various planning and analysis techniques are used in textile production (Watanabe, 2020). Different control methods related to supply chain and information management Digital preparation of 3D textiles. It offers good opportunities for the textile industry by providing the best delivery system to customers. It is quite useful and its approach includes textile machinery in the textile industry and chain management processes for consumers (Barbosa, Ana and José, 2020).

### **Conceptual Framework**

Companies of all sizes are now considering how to digitally transform and change their products in response to the demand for "permanent connection" between businesses and their customers. According to Ali and Basha (2019), people believe that businesses will provide the best goods and services in the shortest amount of time. The capacity

to supply raw materials that will take care of the final customer right from the start ought to be the basis for pricing. Product managers must rethink their approaches to product management and the path to digital supply chain management in order to adapt to this change. Change doesn't happen overnight or in a month. However, based on the study's data analysis, four things appear to occur when connected to the same platform (Anthony and Sobah, 2020). Improved uploading, visibility, collaboration, and information sharing are all present. At every stage of the product lifecycle, visibility is created, which, when combined with the power of digital supply chain integration, can speed up the process. Transition and development time are frequently the outcomes of early integration of live products. According to Banga and Banga (2020), integration of intermodal logistics can assist in identifying transportation inefficiencies and lowering transportation costs. Taxes and duties can be reduced and customs inspections reduced when automated data is linked to and updated with existing business data. Eliminating dated and out-of-date processes in the supply chain, particularly in delivery and purchasing, is the only way to achieve a true digital transformation. Whether it's showing all available shipments on a map and knowing where they are, or clearly understanding the downstream and supply chain, creating a larger view of the supply chain is crucial (Bredmar, 2017). To improve their business, discover new prospects and opportunities like new carriers, and cut costs, the purchasing and logistics teams must share information. However, digital product modifications extend beyond shipping boxes (Wang, 2021). Design, price, purchasing, production, order, distribution, transportation, maintenance, and other aspects of digitalization View information in a detailed and complex view tends to connect all of the information that describes the contents of the product or packaging. This kind of data makes it possible to see and track the supply chain, but there are many differences between digital products and modern products that make the gap even wider. The ability to automate, coordinate, and enhance quality analysis is provided to a company's planning, purchasing, and transportation group by digitalization of the global supply chain or the entire supply chain. Digital products let multiple people or processes, both internal and external, work together. The control tower has this as one of its features. Information may be useful in separate boxes or spreadsheets, but collaboration has the potential to reduce or eliminate separation in information sharing. A single platform portal that enables shared partner visibility and integration with relationship rates for a network of more than forty integration points provides an integrated and comprehensive view of the supply chain (Ali and Basha, 2019). SCM becomes more responsive and faster as a result. Both are crucial digital gadgets. An integrated digital platform is automation. eliminates manually repeated errors, improves the accuracy of information, and speeds up the supply chain by automating many manual and labor-intensive tasks. Additionally, digital systems facilitate decision-making throughout many life processes. According to Ayantoyinbo and Adeolu (2002), for instance, ticket prices are set automatically and alerts can be sent out whenever there is a possibility that orders will be lost or delayed. The task of locating goods suitable for free trade will be taken into consideration. Taking into account other aspects like speed, time, and purity, automation continues to determine the best transportation, carrier, and planning methods. The digital delivery procedure is typically based on an automated procedure. A lot of information is provided by the entire chain. Analysis can now identify issues, problem patterns, bottlenecks, and opportunities to save money by creating a digital model of the entire supply chain using historical data, customer performance data, and an overall cost sheet.

Additionally, analysis can identify potential threats and offer solutions (Atstāja, Cudeāka-Puria, Vesere, ābele, & Spivakovskyy, 2021). The supply chain can be improved through business reporting and presentation analysis made possible by analytics. Spreadsheets, phone calls, and emails are still used by businesses to share information. The situation becomes even more complicated when we factor in purchasing and logistics. It is essential to improve communication between internal teams and between suppliers, brands, and suppliers in order to expedite the delivery of products to market. It also aids in cost reduction and quick demand management. As a result, digital products are a good option. Through the digital model of SCM, SCM managers can make the right decisions and use their time to complete other important tasks rather than searching for interesting information when both purchasing and logistics can receive valid information from trustworthy sources (Ali and Basha, 2019). can also be used to plan computer-based travel. The plumbing company's flexibility and value are both increased as a result. Because labor is reduced, digital products will require fewer customers and workers during construction. The supply chain's overall cost and time are reduced as a result. Greater connectivity and product forecasting are another benefit, enabling suppliers to reduce inventory and ensure product security, particularly in the marketplace. To be successful, textile companies need to take a holistic and integrated approach. Product development, quality control, global management, factory or product risk, quality assurance, and international transportation, logistics, cost management, and logistics processes are all part of this expansion into digital product development.

### **Research Methodology**

The methodology was used in this study. In one study, managers of five different textile companies were asked to be interviewed. Selection of search method is discussed in the section. The delimiter is used to distinguish between traditional products and digital products. Research method shows how to collect data from primary and secondary sources. Selected data collection methods are described and traditional and digital materials are described. A brief overview of the company's products and how data is analyzed and analyzed. Research shows that new digital methods are reliable or valid.

### **Research Approach**

The cutting method was used to conduct the research in this study. Lee and A. Fields (2017) also make a distinction between digital and traditional materials in this study. Inferences form the basis of this study. The deductive method was used because the researcher was doing a qualitative study. However, certain guidelines must be adhered to. One method of scientific research is deductive reasoning. In addition, the researchers looked into what other people had learned from primary and secondary literature. There are numerous benefits to using termination. There is an opportunity to explain the connection between ideas and variables when using the deductive method. can accurately measure. (Lui, Yasmin, Breanne, Justice, & Sari, 2021) The findings can also be applied to a larger scale. The

researchers made a straightforward inference. Primary data was used to test research questions. Deduction is used by scientists because it starts with strong enough shared ideas and processes. Additionally, the value and significance of information gathered from primary and secondary sources can be evaluated using this procedure. Shifting from broad to specific concepts. Empirical evidence is related to inferences. Rare is subjective bias. According to Lee and A. Fields (2017), this research is more objective and evidence-based.

### **Research Method**

In research, various methods are utilized. In this study, the qualitative method was used. This is due to the fact that the research is based on interviews with five executives from textile companies. Accuracy can only be confirmed with precise data. According to Abdissa, Worku, and Shekar (2018), cultural and digital inductive methods are the foundations of qualitative research. The study is chosen for its ability to provide answers to the "why" and "how" questions as well as a deeper comprehension of the subject and the outcome. This method can be used to understand actual experiences and ask questions that cannot be quantified. The current study's context can be adapted to qualitative research. Through research, there is a clear path to change that will raise the level of understanding and knowledge production. This study relied on qualitative interviews and took a cross-sectional approach. Five questions about digitalization and textile industry supply chain management will be discussed (Roslan, Izzaty, and Azwady, 2018). According to Hollis (2018), this is advantageous because it aids in recognizing characteristics and patterns. A method of research that explains various aspects of the subject and events being studied is descriptive research. When the goal of the analysis is to identify characteristics, trends, frequencies, and groups, descriptive research is the method of choice. Useful when there isn't a lot of information about the topic. You need to know where and when something happened before you can figure out why it happened. Data collection is an important advantage of descriptive research. The research method enables researchers to carry out descriptive studies (Taweewattanakitborvon, Achara, & Chandrachai, 2018).

### **Research Strategy**

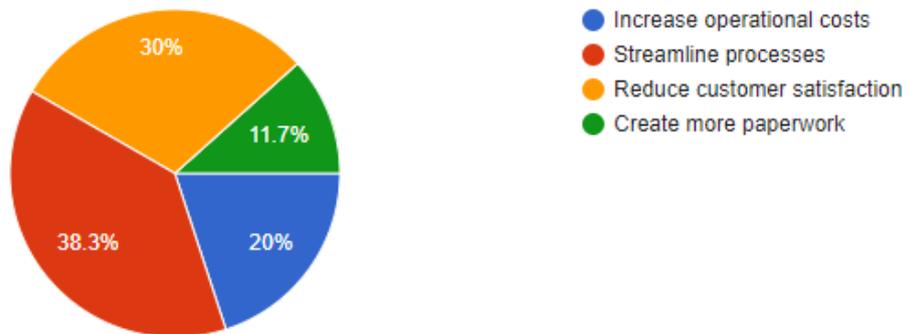
Only the cutting method was used in this study. However, if defined correctly, cutting data will be analyzed and presented more clearly.

(Rahman M.S., 2017). Therefore, for this study, as we all know, it is based on interviews, the good methods and research used will be included. This research study will help to understand the answer better. Science has the concept of doing research to understand problems that cannot be clearly explained. The aim of this study is to better understand and understand the supply chain of textile industry, compare digital products and traditional products and gaps. There are no exact details, just an explanation of what is happening now.

### **Data Collection**

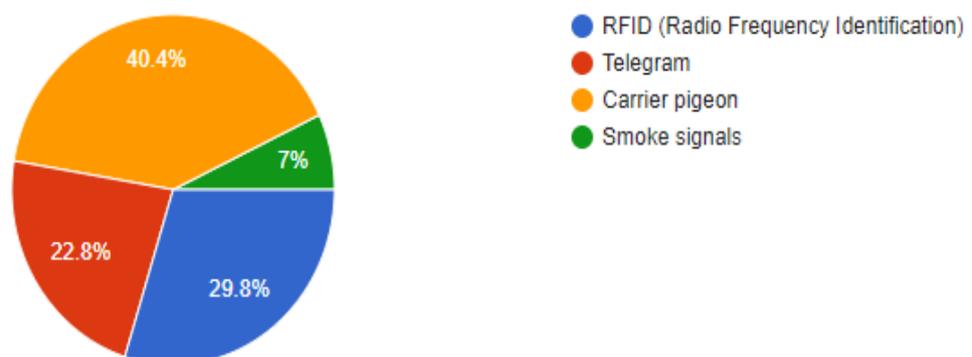
### What is the primary goal of digitalization in the supply chain? Untitled Question

60 responses



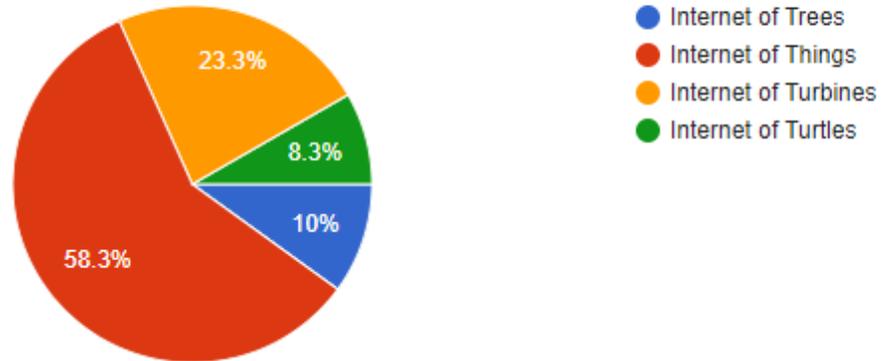
### Which technology is commonly used for real-time tracking of shipments?

57 responses



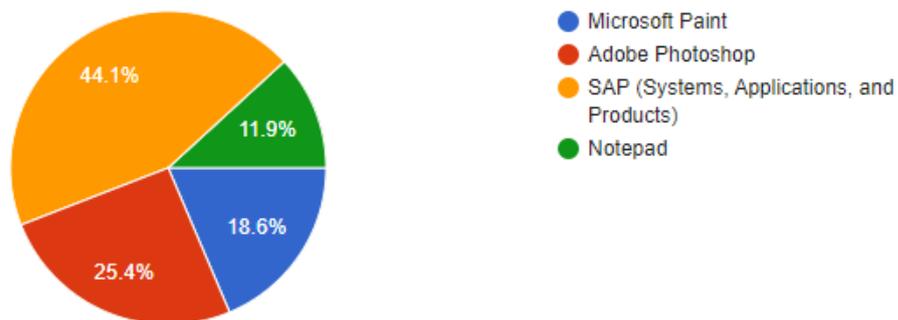
### What does IoT stand for in the context of supply chain digitalization?

60 responses



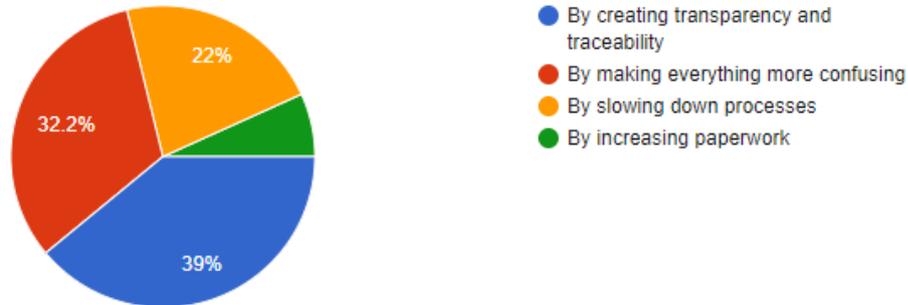
### Which software is often used for supply chain planning and optimization?

59 responses



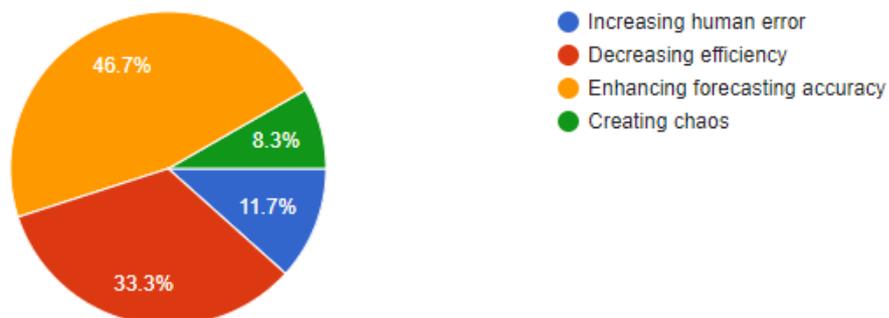
How does blockchain technology contribute to supply chain digitalization?

59 responses



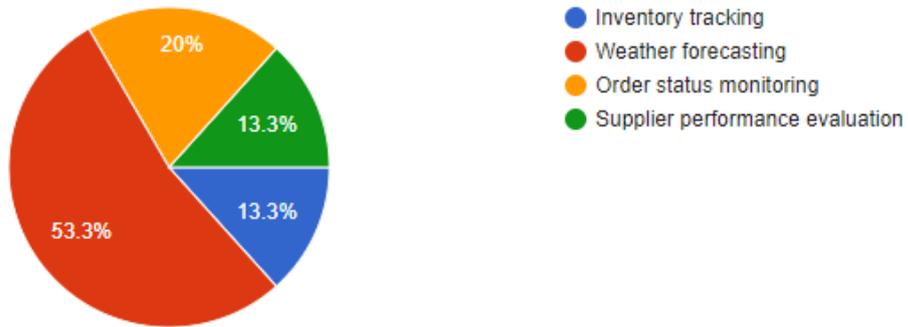
What is a key benefit of using AI in supply chain management?

60 responses



Which of the following is NOT a component of supply chain visibility?

60 responses



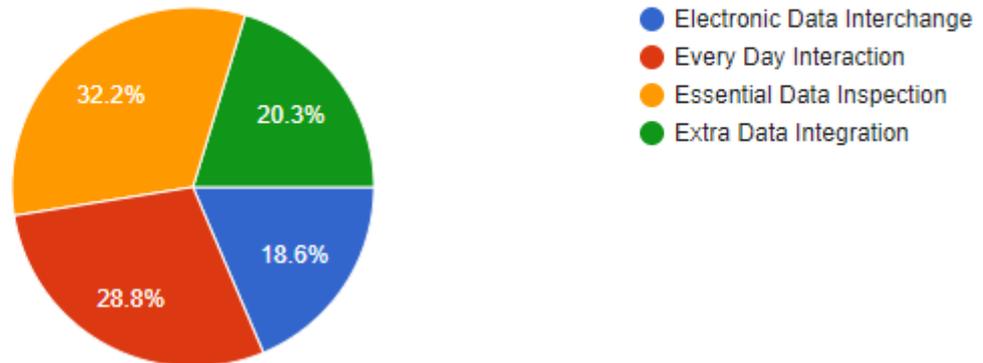
How does digitalization help in demand forecasting?

60 responses



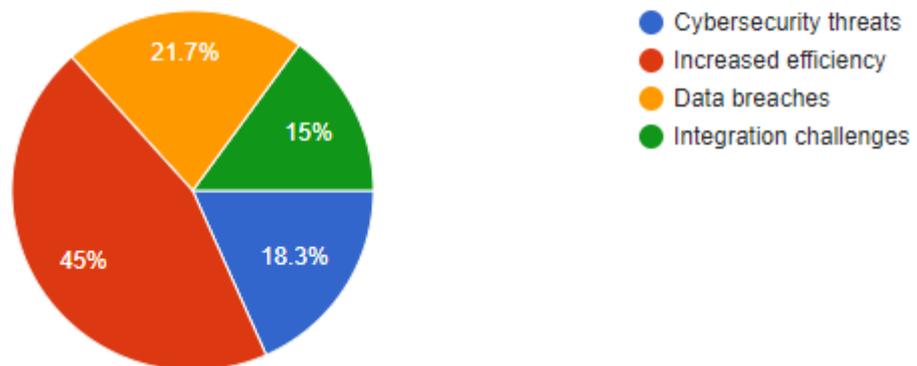
### What is EDI in the context of supply chain digitalization?

59 responses



### Which of the following is NOT a potential risk associated with digitalization in the supply chain?

60 responses



### Operationalization

Explaining the connection between various variables, most questions are generally broad and leave no room for

interpretation. The telephone interview was chosen for this study because it provided the best method for reporting the defendant. A phone call is the best option because many jobs and businesses are listed anonymously on online boards (Khan, Ishizakab, and Genovese, 2021). Companies accept phone interviews to select candidates and narrow benefits, so this type is used. By lowering the cost of interviewing candidates from out of town, they help businesses save money. Skype was used to conduct the interviews. The difference in time is about 8 hours. There are numerous dialects of languages. However, the most significant language is English. (Kt, Sarmah, & Tarei, 2019) English translations of all interviews

### **Sampling**

When using purposeful sampling, the researcher selects the sample based on survey and population data. The purpose of the sample guided the selection of the participants. The requirements of the research influenced the selection of participants. This is a non-conclusive example that was chosen after doing a lot of research. The research can benefit from the results of creating general information from the data, which is why the purposeful sampling method was chosen (Etikan, 2016). Methods for purposeful sampling make it easier to generalize from samples. Time and money can be saved by sampling technology. When collecting data, researchers can save money and time with a simple design. It provides a program that adapts to changing circumstances. Needs and interests are met. It is capable of making as many changes as possible. According to Etikan (2016), the designer wants to provide researchers with the opportunity to generate knowledge everywhere. The error margin for purposive sampling data is relatively small; This is due to the fact that the data are obtained directly from the source. Additionally, samples taken with intent will yield immediate results. using surveys to get information from a small number of people. According to Etikan (2016), many of the people in the sample group already know a lot about the subject under investigation. Models that aren't results are easy for product managers to create. because the people chosen for the interview can be reached and will show up to the interview.

### **Data Analysis**

All recorded data will be converted into the following formats following the collection of the interview data. The analysis of the data is the next step. To keep with the research plan, a basic method of data analysis was used. Begin the open coding process for each question by first identifying the various questions. Model of open-ended coding questions like "Why should I hire you?" What's your goal? Why do you want to design textiles? All questions have been written down as a result of this analysis (Köksal, Jochen, and Marthias, 2017). After interviewing the data, the next step was to move on to axial coding. In the interview, both the lower and upper categories are important, and the one that is most important is chosen. In both codings, a different question concept is used. It is possible to develop biases regarding the connection that exists between categories like "event ideas" and "causes." It is possible to explain the concept of the reasons for the particular behavior of textile managers and business owner managers

thanks to this procedure. Through a variety of levels of questions, the interview data were analyzed.

### **Validity and Reliability**

The validity and reliability of qualitative research utilized in supply chain and management discussion articles are affected by various contexts. Interview performance is influenced by numerous factors. Costs are reduced and call security is enhanced when phone calls are effective. When multiple researchers apply the same measurements to different groups of participants, the probability of obtaining the same results is referred to as reliability. Information gathered from interviews is not classified in qualitative research. Performance can reveal the true and singular character of textile leaders. The best way to test various abilities and skills is through phone skills. The ability to answer the questions correctly ought to have a good one-to-one correlation. Some of the questions asked over the phone are straightforward. As a result, staying for a short amount of time is the best way to gain trust. Because they permit personal interaction without the need for a face-to-face meeting, phone interviews are an excellent trusting alternative to face-to-face meetings. Conservatives disapprove of phone interviews since there is no apparent contact between the questioner and the interviewee.

### **Research Ethics**

They have implications for how companies in the industry approach innovation in supply chain management. All researchers accept the rules and responsibilities of the interview. Job interviews were conducted by conducting research (Sabrina, A.Maspupah and F.R.Umbara, 2019). During the interview all participants are fully supervised to the best of their ability for intellectual disabilities and mental retardation. Ethical research has also revealed the concepts of humanity and justice because people find comfort in the use of phones. To complete the interview, everyone is treated with full respect. The interview text should be as follows (Mondragon, Ernesto, Jung and J. Hogg, 2019).

### **Results and Analysis**

By asking questions and comparing modern and contemporary products, it demonstrates the need to innovate and alter the conventional method. As an individual response, the response reveals: There is an issue Conventional outbound and inbound Store network model solution to the inquiry is "the need to utilize new innovation issues to deliver items to satisfy need" Purchasers - (IP-1). The textile industry was never prepared for this situation. The most recent computer technology is unavailable, as is delivery and planning. The majority of business planning involves the human element, and the target is not a good manager. Traditional products do not meet the goals of supply chain

management. fulfill the requirements of the supply chain. Demand and Supply—(IP-2). As a result, the company develops a transportation system with solutions that can accommodate both current and potential future requirements. Logistics and mobile supply chain solutions aim to make transportation safer and more environmentally sustainable at the same time. Models and supply chain models always show multiple levels of the process at which many stakeholders are equally important to the business. According to Barbosa, Ana, and Jose (2020), a problem for the entire SCM process can arise from an incorrect commitment or issue in one part of the process. A method is proposed for revealing the problem and the traditional model in the textile industry, where the traditional model is more difficult and participants believe traditional products are less than usual due to the complexity of the problem. In order to avoid issues for the business, outdated models must be updated and replaced in, where the majority of consumers are interested in clothing and textile products. Coordinating stakeholders is always difficult, resulting in delays or even obstacles to the process as a whole. According to the previous model, customers would suffer if their needs were not adequately met (Othman, Amran, Nuno, & Zana, 2020). The same response was provided by IP-4 and IP-5, two additional executives from various businesses. "We have problems with communication and information sharing with traditional methods that do not use technology and digitalization, i.e., etc." was the third interviewee's response to this question. There is no limit to this list - (IP 3). As a result, we can draw the conclusion from these suggestions that conventional approaches to product management are ineffective and require new ideas. Utilizing important R&D data can be made easier for businesses by product management applications. Businesses are able to track and manage vital company data because of the extensive market for connected products and logistics services. Your company's productivity relies heavily on connected devices, which make use of the data generated to make informed and data-driven decisions. The traditional equipment model failed to alert managers to issues, and numerous findings can provide an explanation for the issues that existed before digitalization entered the textile industry. The business won't be able to adapt to technology if it doesn't know how to use the tools (JAIN, 2018). This will slow the growth of the business. Another important factor is launching digitalization through supply chain and business development. The responses of survey participants effectively and succinctly explain this: The development of computerized change can lessen the expense of conveying; better and faster service™ (IP-4). As B2B and B2C companies differ, e-commerce has a direct impact on customer satisfaction and retention." Because, after all, online stores are the primary driver of the company's growth, this indicates that operations and products require greater speed, flexibility, and dependability to improve the quality of service for merchants and retailers. One interviewee suggested that digitalization could address the following issues: higher costs of accessibility, interactions with people, payment issues, etc. digitalization can solve" (IP-3). Digital transformation and additional ICT can support better business models, improve efficiency, and streamline knowledge management thanks to their inventiveness. Additionally, one of the most promising short-term strategies for people's sustainable development is digitalization. Digital foundations that boost performance and success underpin these concepts: productivity, making decisions based on information, and altering customers' and businesses' mentalities. Because the traditional SCM model responds more slowly and has more flaws than the digitally used model, the classical model is relevant to the attacks mentioned above. According to one participant, "relationships between

suppliers and companies can improve thanks to digitalization" (IP-5), despite the fact that, in the new world of customer needs and market, the new system should be adopted to limit the uncertainty caused by the old system (Hönigsberg, Dinter, and Wache, 2020). As a result, opinions regarding the introduction of digitalization in textile businesses vary widely. Throughout the interview, there are numerous examples that represent the current topic; Suppliers are also in need of more as businesses embrace digitalization and better business practices. When delivering and managing various programs, poor relationships and limited communication can occur, just as they do with design. Utilizing new technologies to enhance long-distance communication is advantageous as a result of digitalization, and previously problematic areas will be addressed or enhanced in novel ways. According to the statement, "Intermediaries manage key activities from farmers to the end-user process," intermediaries in the traditional supply chain play an important role in managing the relationship between customers and suppliers (IP-1). Other leaders provided the same response: "(IP - 3) AND - The role of the intermediary: Intermediaries are especially important in important operations like sales and purchasing, transportation of products from farmers to final consumers." to move, move. (IP-4) Normally excluded (or poorly managed) supply chains are characterized by relationships between consumer product transactions, including business negotiations. As a bridge between farmers and businesses little sharing of the benefits and risks; focusing on the immediate aspects of the relationship but not content in the long run; limited data exchange, lower value-added analysis, and primary costs. However, it is stated that "intermediaries cause loss to the farmer" because there is uncertainty regarding the losses or damages caused by these intermediaries. This is due to the farmer's lack of comprehension of actual business practices (IP-5); consequently, this conventional method will result in issues for farmers and businesses alike. If enough suppliers and customers appreciate the delivery procedures, the textile industry can thrive. Customer satisfaction is essential to the growth and success of any business, so delays in traditional processes can occasionally cause issues for customers. The intermediary acts as a link between the issues that will arise if modern processes are used to achieve digitalization. The customer and the business benefit from digital preparation and delivery process enhancement (Barbosa, Ana, and José, 2020). The responses also demonstrate that this strategy requires modification due to the numerous questions regarding the inbound supply chain mechanism; I Believe in Inbound Supply Chain™ (IP-1) as evidenced by the response. The supply chain is the same, even if different businesses manage it individually. This assumes that when businesses hire intermediaries, they always increase the product's value or contribute to the business chain in some way. When using these intermediates, businesses can therefore control the significance of capacity in the supply chain. Due to the presence of intermediaries, businesses may experience product losses and suffer damage from these individuals. The company, one of the interviewees, responded that intermediaries' after-sales service is frequently subpar and unable to meet the requirements of businesses (IP-3). These responses demonstrate that in order for businesses to expand and develop, new and creative strategies must take the place of inbound logistics. The supply chain is more accountable and is in charge of managing the supply chain to achieve the efficiency and value that will ensure the company's success at the ports and vice versa. Because the company requires raw materials for its production, its business is connected to transportation. It is possible to argue that based on this theory and the data that is available, the job in the textile industry is more difficult and requires a focus on

customer satisfaction. This is because intermodal logistics explains the inefficiency and slowness in the logistics sector. Both Banga and Banga 2020). So far, leaders in the textile industry have responded by asking them about the challenges that the industry faces. "In both outbound and inbound logistics, there are problems with reducing traffic, improving business processes, customers, etc.," stated one interviewee. IP-1: Production and distribution involve a large number of stakeholders.

From the initial product to the final customer, they play a role. Starting with the original product (the manufacturer), the design process moves on to suppliers, retailers, and finally the end user. To remain productive, the aforementioned employees face numerous challenges related to their work and resources. The middle class is also trying to create value in the same way that the economy is trying to become more profitable, effective, and efficient. Intermediaries need to be able to work in the market and have other skills and abilities in order to add value. Other instances of intervention are: Emergency notification, outage, and absence of notification There are operational issues, insufficient planning, and numerous other issues (IP-2): "But you can, I will explain the basic risk problem" (IP-3). One participant explained that supply chain issues are extremely challenging for textile companies. The conclusion that can be drawn from these effects is that the traditional supply model has an effect on the supply chain.

The supply chain also has an impact on the company's performance and delivery. Inbound logistics and supply chain mechanics also affect the company's logistics and performance. The last option for textile companies to overcome these obstacles is digitalization. By providing better information, digital systems can enhance the supply chain and give individuals more control over their supply chains. The findings emphasize the significance of digitalization in boosting employee performance during traditional organizations' capacity-building processes. Digitalization has been utilized in the field of outbound logistics to effectively comprehend and address customer requirements. Digitalization has the potential to enhance products and processes. According to Banga and Banga (2020), this is what the textile industry needs most to develop and address supply chain management issues. For textile businesses, digitalization is their last hope of resolving these issues. The significance of digitalization in supply chain management, as the interviewees requested. The ultimate requirement of the modern world is increased passenger traffic and a change in the current system, as well as increased business competition in the same and other sectors. The majority of interviewees' responses regarding the significance of digitalization were innovative and positive; "Digital process can improve and give good results in product understanding, give more information to the people who manage the supply chain," as one of the interviewees stated (IP-5). The results emphasize the significance of involving young "digital people" in the process of constructing traditional organizations' capacity to boost employee performance. Senior consultants on the need to balance external and university staff's involvement in digital transformation. During the interview, candidates were advised to establish digital management teams, procedures, and business strategies in order to overcome the obstacles associated with developing internal models. For instance, participants demonstrated leadership by utilizing a brand-new digital mentoring program to rethink the management structure and provide feedback that could enhance the business. Digitalization has a significant impact on the textile industry because "for outsourcing, they can use digitalization to understand customer needs and work efficiently"

(IP-4), as well as "Digitalization will improve processes and products" (IP-2). One could say that digitalization is the solution and development of the industry's most challenging and important aspect. SCM and other aspects of business.

The numerous business channels make the supply chain extremely complex. Products are purchased by customers in a variety of ways, and as a company expands, the supply chain must adapt. To manage entire pipelines, managers must transform the supply chain. It is evident that customer requirements result in a demand for additional service, quality, and when receiving products (Kouhizadeh and Joseph, 2018). Products that satisfy the requirements of the customer regarding availability, quality, and price are the most valuable. To meet these requirements, supply chain management is essential. Supply disruptions have been caused by global pressures, ecological shifts, and economic disruptions. This pressure results in risks and issues that escalate into more serious issues. In order to meet requirements and resolve issues, the supply chain must adopt digitalization. According to Djulius, Juanim, and Ratnamiasih (2018), the use of digitalization in the supply chain has the potential to both cut costs and increase visibility into the entire supply chain mechanism. The evaluation of new technologies in the SCM and Business 4.0 revolutions is the primary focus of this research paper. Unlimited investigation into time, place, politics, population, climate, data analysis, supply chain management automation, and digitalization, among other topics. It demonstrates that it provides opportunities for The digital products sector continues to develop globally as part of the larger global economy. Automation, wearable devices, logistics visibility, smart factories, and a variety of digitally advanced tools, among other things in different areas. was viewed. The textile industry's digitalization process is the main focus of this study. Because of this, managers who looked at the results think that the supply chain needs more innovation to be better managed. "Digitalization can be used in production, quality control, maintenance, and management, etc." is one participant's response to the question. IP -1). "Digitalization is much needed in's textile industry because it is the sector with the highest employment after agriculture," some individuals responded. IP-3). Even though the textile industry has access to cutting-edge technology and resources, it has been forced to produce and export coarse, non-seasonal, and inexpensive textile goods that cost a lot of money to make. at a low price Deposit has higher production costs. As a result, overall competitiveness in the nation is declining. An official stated that the textile industry already uses technology in its supply chain. Businesses are utilizing new technologies. Digital media are being used by some businesses to better manage and integrate processes (IP-4), but SCM has not yet been developed. This participant cited the fact that farmers and other illiterate individuals, who are not familiar with the most recent technologies and procedures, are primarily in charge of operating the system and controlling transportation. They must be taught or a system must be developed that they can accept. In fact, SCM is not as focused as other industries. One participant responded, "The textile industry does not use the concept of digitalization in" (IP-5), "that does not have new technology in this field." Both developing and developed nations produce clothing and fashion in equal measure. However, the significance of keeping an eye on industrial production is demonstrated by the fact that developing nations confront the most significant social, environmental, and economic issues.

## Discussion

Based on the responses of the participants and the findings of the study, it appears that the textile industry's requirements for digitalization are crucial to its success and prosperity. The need for cutting-edge technology drives global competition today. Textile companies need to come up with important marketing strategies to find new needs and modern customers in order to increase the value of their products. Supply chain managers need to know how digital technologies are used and can be used because they have a lot of potential in supply chain management (Holmstrom, Jan., Matthias Holweg, Benn Lawson, Frits K. Pil, and Wagner). 2019). The findings of this study are supported by the 2018 study by Zimon and Domingues, which provides an explanation of the issues that arise in supply chain management as well as the issues that can be addressed in a variety of ways. Additionally, the author expressed concern that traditional approaches would make it challenging for businesses and the textile sector to utilize the supply chain. According to Zimon and Domingues (2018), the current study's objective is to demonstrate that food industry management issues exist and to offer a sustainable recommendation. Researchers also liked this new approach, which is recommended to businesses to help them find and update their businesses more effectively. Marmolejo and Hartmann (2018) looked at how supply chain management is affected by technological advancement. Logistics and supply chains must be completely digitalized as a result of the Fourth Industrial Revolution. The most recent business conditions can only be overcome by businesses that are prepared and open to change. The product market will pass through businesses in business segments that do not develop into true gaming sectors. The logistics industry's shift from analog to digital models necessitates meticulous planning. According to Marmolejo and Hartmann (2018), this is the most important thing in humans when only the lower functions are required. The textile industry's inbound and outbound logistics processes are the most important processes in every minute of its business, so the information in this article also discusses the significance of digitalization. need for innovation (Kouhizadeh and Joseph, 2018). Flexibility for international businesses and opportunities to advance and expand with the team's resources are the rewards of completing this change. Digital products and global logistics are now built on big data as their foundation. Services and software must always be updated to meet the needs of businesses in the current environment. In general, this does not imply that technological advancement will occur immediately. However, progress is the objective, and development refers to the new. According to Marmolejo and Hartmann (2018), this study demonstrates the supply chain's operational progress in the digital environment. This study's findings are in line with previous research. One respondent, for instance, stated that "there is a problem with the external and internal model of the equipment," and the following was the response to this question:

"New difficulties must be addressed. Managers must have plans in place to ensure that everything runs smoothly because products are made to satisfy the requirements of more discerning customers. the combination of various business opportunities, customer expectations, international competition, and other factors. creates significant issues for connected devices. Price increases and other issues exist. Profitability is being impacted by the rising cost of connected devices. The obligation to reduce these debts will result in an increase in operating expenses because of a

variety of factors, including a lack of visibility (Kouhizadeh and Joseph, 2018). Menon and Shah (2019) investigate the digital-centric world and rapidly evolving technology that have heralded the new era of automation. According to Menon and Shas (2019), Industry 4.0 is a crucial component of supply chain management that necessitates ongoing research and development in order to keep up with fierce global competition. According to Hönigsberg, Dinter, and Wache (2020), in order for SCM to increase its financial return and market competitiveness, it must integrate the most recent technology through automation and digitalization. This study's findings are in line with previous data. Digital transformation and additional information communication technologies can improve business models, improve information management, and increase efficiency thanks to their inventiveness. Additionally, one of the best health and longevity promises is digitalization. Digitalization has the potential to alter informed decision-making, business and user demands, and increase production and business efficiency (Dalmarco and Barros, 2018). Attaran (2020) looked at some of the technologies that are driving supply chain management and digital trends in new ways. The Internet of Things, advanced analytics, artificial intelligence, 3D printing, cloud computing, blockchain, and The industry as a whole is being transformed by this technology; It drastically alters services, products, supply chains, and business models. According to Attaran (2020), the study includes a literature review that identifies existing research as well as recommendations for areas in which technology can support or enhance digital products. This study examines the strategic and management issues in the development of new supply chains, as well as the challenges and trends they face in promoting digital supply chain performance. It also highlights the significance of these technologies for logistics and distribution. digital microcontroller channels The issues and solutions to them that are associated with digital purchases and products are the subject of this research. 5G is regarded as a significant engine that will accelerate the sector's digitalization. As a means of reducing operating expenses, increasing profits, controlling and expanding business, and increasing customer responsiveness, international businesses are considering ways to increase the efficiency of the supply chain. In order to meet customer requirements and enhance the performance of their existing products, businesses must rely on technology. The traditional way products are presented has changed as a result of numerous technological advancements over the past few years (Rahman M., 2018).

Physical management, asset movement, monitoring, and other aspects of this study We talk about a lot of the digital solutions that are already available and can be used for. exploring the role technology plays in the creation of conventional goods. According to the findings, businesses benefit from increased clarity, improved delivery decision-making, and other benefits as a result of digitizing their purchasing and supply chains. It demonstrates that it can provide numerous advantages, such as. Digitalization and other supply chain technologies can reduce product delivery costs, improve product delivery to customers, improve asset utilization, simplify supply chain management, and reduce inventory and construction materials (Attaran, 2020).

Primary data gathered from study participants are in line with this study's findings. There were no outages, warnings, or emergency alerts. There are numerous issues with traditional equipment, including work-related issues, lack of planning, and others. One participant in the interview emphasized that supply chain issues are the primary challenges that textile businesses face. We can conclude from this response that the traditional supply model's influence is

threatening the supply chain. The current state of Bangladesh's textile industry was the subject of an investigation by Ali and Habib (2012). The state of supply chain management in Bangladesh is the subject of this study. One of Bangladesh's most important industries is the textile industry, which contributes significantly to economic growth. In Bangladesh, the textile industry serves both a larger foreign market for clothing and ready-made garments and all domestic requirements. The textile industry is made up of numerous products, supporting items, and more. has. All manufacturers can employ the supply chain concept as a conventional management tool. Product quality must be improved, service and product costs must be reduced, and response and delivery times must be reduced in order to compete in the market. Journals, literature reviews, and other online sources are included in the study. from a variety of sources, such as. Good supply chain management results in lower production, increased productivity, lower costs, faster sales, improved margins, increased profits, and increased customer loyalty in the textile industry. According to research, the Bangladeshi textile industry is plagued by issues like lengthy delivery times and a lack of supply chain management. It demonstrates that it encounters difficulties as a result of conventional and inefficient materials like Even with the most recent computer technology, there is still no delivery or planning. From a human factors perspective, most business planning is done by bad managers who have clear goals and are usually motivated by saving money. Poor relationships between suppliers and customers, including business negotiations, characterize supply chains that have traditionally been excluded (or poorly managed); little thought given to the ratio of benefits to risks; lack of interest in working together in the short and long term; low data exchange, significantly lower costs, and high prices The goals of the research problem were met by the researchers. utilizing secondary data from reputable journal research articles. There is a difference between routine and daily products, as revealed by secondary data analysis. Due to cost savings and improved visibility, digital electronics are more effective and efficient. Digital devices have become more mobile. Journals are used by researchers to contrast and contrast academic results. Digital tools can be used to enhance both outbound and inbound logistics, as the background reveals. The supply chain's expansion and improvement concern the second-ranked researchers. The growth of the materials utilized in the textile industry is related to one of the second most significant factors. Better information sharing should be possible utilizing 5G innovation, yet this isn't made sense of in the first.

### **LIMITATIONS AND FUTURE RESEARCH DIRECTIONS**

In this section of the conclusion, some significant findings from the will be discussed along with some recommendations for future research. We will concentrate more on digital products and the issues they face in this study. Based on data analysis, it offers insight (Figure 2). Digitalization will continue to permeate every aspect of the business sector, particularly equipment, thanks to technological advancement. In general, parent companies are under pressure to develop the necessary collaboration, integration, digitalization, and technology strategies in order to quickly respond to customer needs due to pressure from customers and the competitive environment. Additionally, real-time inventory tracking, resource allocation, customer interaction, and overall performance can all be affected by supply chain digitization; DSC and its applications need to be better understood by businesses. increase profitability and efficiency.

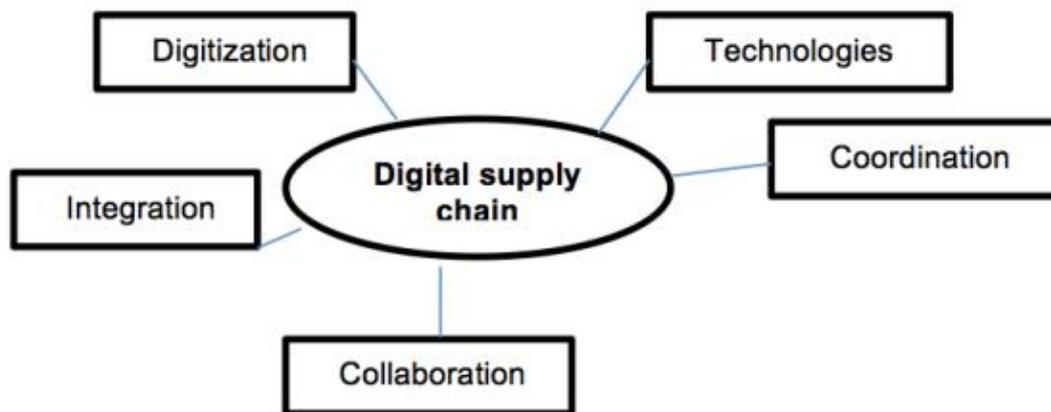


FIGURE 2: Drivers of digital supply chain.

### **Theoretical Background is Often Missing**

The analysis revealed that more than 73.3% of the data could not be discussed in terms of principles. There may be two reasons for using rare theories: first, because DSC is a new field, authors are unsure which theory to use or would be appropriate; Second, the supply chain as a whole lacks “consistency” [38, 39]. Therefore, the author may not be sure which one to use. Therefore, this article recommends that researchers adopt a good inductive research method to help develop ideas, design, and DSC theory.

### **Digital Supply Chain Studies Mainly Used Survey Approach**

As a result of the analysis, it was revealed that 44.9% of the participants used the research method, 32.7% used the strategic analysis method and 14.3% used the research method. More research is needed as DSC is a developing field, [28, p.4179] shows that rigorous research has been collected in DSC through ground investigation and in-depth discussion based on data. Therefore, there should be an inductive approach to data exploration; This is necessary for regions without sensation [40]. In general, research studies are more effective in theory and/or evaluation. At the same time, this review showed that almost half (49%) of the review articles used survey-type research, while 14.3% used research articles. Therefore, this article recommends that researchers use qualitative research data to analyze the development of DSC, as this will lead to further research and theoretical development in DSC.

As mentioned above, some precautions were taken to ensure the quality of this work. However, in the analysis of data of this nature, the knowledge and experience of the researcher has an impact on the findings. Future research could build on this framework by exploring other types of media; this may allow further details to be clarified. Although we analyzed the articles using broadly indexed data, we think a more detailed analysis is needed using other terms such as supply chain automation, supply chain >>Publishing, digital networks, demand management and Digital logistics and others.

## **Conclusion**

With evidence-based evidence, the researchers met their research questions and goals. The chasms that separate traditional, contemporary, and brand-new product models are precisely defined and effectively implemented. The purpose of this study is to compare and contrast contemporary and conceptual material models by looking at information from a variety of texts. The main points show how the textile industry's supply chain grows as a result of inbound and outbound logistics. The background focuses on supply chain growth and enhancement. The new magazine's technology and traditional product model were compared to each other in the analysis. In order to gather opinions, the researchers also spoke with experts in the textile industry and supply chain. The article discusses the shortcomings of the conventional product model and the difficulties the textile industry faces as a result of the use of unconventional production techniques. Not only does this study provide an answer to the research questions, but it also offers a model to follow and suggests long-term solutions to the issues that were encountered. In a nutshell, it is asserted that the utilization of cutting-edge technology and modern equipment contributes to the accomplishment of the equipment's objectives. Based on the researcher's conversation, the research's findings and conclusions contain the ultimate truth. In addition to being useful for education, technology centers can make use of this infrastructure to resolve textile industry issues. The digitalization and modern supply chain management movement in the textile industry are explored in depth and usefully in this case study.

## **Managerial Implication**

Controlling and monitoring the entire supply chain for a business is simple for supply chain managers. An organization's supply chain manager is responsible for the entire supply chain, which is why it's critical that the manager manage it. Managers of the supply chain are responsible for keeping an eye on the entire production process and any necessary adjustments.

The manager of the chain identifies issues that the organization, company, and chain of companies face, takes the necessary actions, and creates the necessary solutions to these issues.

The material controller purchases all materials required for the production to finished product process. In this instance, managers of the supply chain need to take strategic actions that will make the production process easier for stakeholders and more sustainable. In order to carry out their duties with accuracy and efficiency, equipment inspectors must be able to maintain their skills. Product managers must embrace the new technologies needed to improve the delivery process in the context of digitalization. The manager is responsible for providing the necessary education and familiarity with the most recent textile chain technology practices.

Material pioneers should have the option to follow and dispense with representative issues to accomplish objectives and goals. Material item supervisors ought to have the option to assess the innovative turns of events and enhancements that should be made to build the creation and nature of material items. The company's entire supply chain needs to adhere to cutting-edge standards based on cutting-edge techniques in order to boost production and product quality.

### **Future Direction**

How modern technology will be used in the future requires investigation. The proper application of both new and contemporary technologies as well as supply chain models is fraught with difficulties. Today's issues can be identified by examining the challenges posed by technology adaptation and use. During the transition to modern technology, it is essential to follow the textile industry's fundamental issues and eliminate them. Analytical research will enable us to solve the issues that exist today and guarantee the appropriate application and efficient utilization of textile technologies, including 4.0 technology. The global digitalization process will also benefit from research on textile industry digitalization issues.

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