



A Research Paper On Study Of Digitalization In International Logistics.

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Abstract: For the development of the country's economy, the logistics sector must be at a level that can compete in the international market. This requires a higher level than the logistics level of the foreign market. This can be achieved by using the latest technologies or by manufacturing new technologies. In particular, logistics with the aim of responding to customer needs as quickly as possible; has become a strong sector with advanced technological structures and growing consumer demands with the influence of globalization. As a result, businesses have had to keep innovation on the agenda to keep profit margins and customer satisfaction high.

In this study, the digital logistics process and digital structures used in the logistics industry in international trade are mentioned. The benefits of digitization are discussed in detail. Information is provided on the future of digital logistics.

Modern foreign and domestic studies mostly consider the digital transformation of the economy to be a combination of effects arising under the influence of a number of introduced digital innovations, which lead to the emergence of new economic structures, new business practices, but also new values. and beliefs in the business environment. The article is dedicated to researching the characteristics of the development of logistics networks in the context of globalization and digitalization of the economy. Issues of increasing the efficiency of the operation of logistics networks using digital technologies through the creation of information logistics platforms were also considered. As a scientific novelty of the study, the highlighted advantages of digitalization of logistics platforms should be noted.

Index Terms - Component, formatting, style, styling, insert.

INTRODUCTION

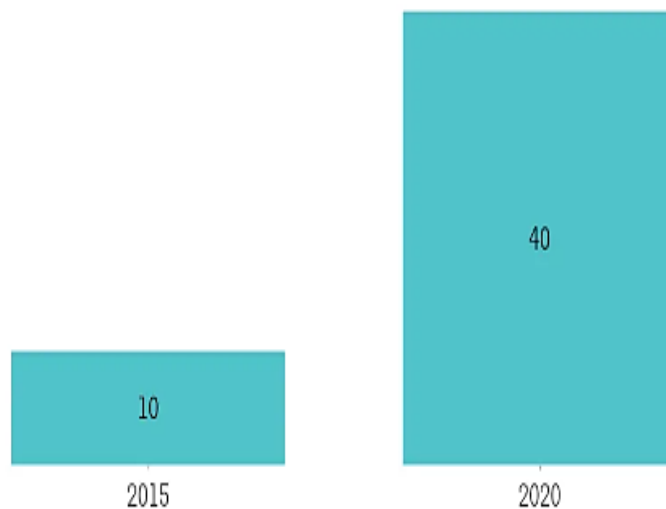
The most basic explanation of digitalization; is the replacement or replacement of existing resources with digital products to provide the highest level of efficiency with the lowest physical effort. In the past, all transactions were handled with documents with invoices. Documents were filed and stored in archives. With the advent of the Internet, all transactions began to be stored in computer memory. Access to information was quick and easy with the use of the Internet. We can define digitalization as a combination of our life and technology.

If we define digitalization as the logistics dimension, it is the use of activities, products, and processes with the technological possibilities to increase profitability, compete in the global market, and increase efficiency. One of the most important factors in the logistics process is digitalization. Digital logistics is created not only in the developing basic industry but also in the development of the modern economy, which plays an increasingly important role in the national economy and social development.

EMERGENCE OF DIGITAL TECHNOLOGY IN LOGISTICS SECTOR

- Technological advancements in the digital market and growing cloud adoption are expected to fuel the demand for digital logistics solutions. For example, in October 2018, Oracle launched the Oracle Blockchain Applications Cloud, a set of services to increase transparency in the supply chain. It is expected to help track products in the supply chain on a distributed ledger, and increase the reliability of business transactions while speeding up the delivery process.
- Growing demand for fleet and warehouse management systems is expected to increase the need for digital solutions in the logistics industry.
- Advances in the sensor and IoT analytics market are expected to attract logistics vendors to invest in digital solutions. Global spending on IoT transportation and logistics is expected to exceed \$38.9 billion by 2020

Spending on IoT in transportation and logistics sector, in USD billion, Global, 2015 and 2020



USING DIGITALIZATION IN LOGISTICS AND SUPPLY CHAIN

Developing digital technology has ensured the removal of borders in world trade, increased competition, and the need to deliver the right product to the customer at the right time, at the best price, and with minimum costs. Companies have discovered logistics as the most effective competitive element in increasingly competitive conditions. Regardless of product quality, logistics must be considered. Digitization attracts businesses like a whirlwind and assists in all areas. Technology is indispensable for businesses to keep up with global markets that are constantly changing and evolving and to achieve success. Businesses must be constantly open to innovation during this process of change.

Businesses are taking advantage of digital opportunities in almost every area. Digitization speeds up the logistics activities of companies and enables them to use this process effectively and efficiently. Thanks to digitization, problems that may arise in the logistics process are minimized and offer immediate solutions.

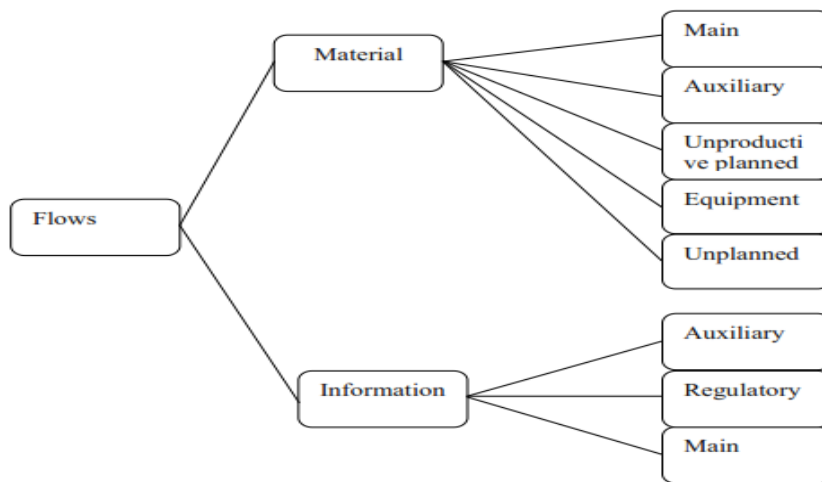
BENEFITS OF DIGITALIZATION FROM THE CONSUMER PERSPECTIVE

It is important to offer a higher level of satisfaction and prosperity for customers. In a new economic system that is open to continuous innovations brought by the digital environment, entrepreneurs with a small amount of capital benefiting from information technology have the chance to succeed by using the features of the new system as speed, efficiency, and customer priority. Moreover, the fact that a consumer is in contact with businesses at all stages, starting from the planning of products and services, is produced as an idea before production, and continuing to deliver products and services leads to maximizing the expectations of customers.

It should not be ignored that establishing healthy and long-term relationships with consumers depends on the timely and timely fulfillment of buyer orders. Accordingly, harmonizing the buyer order data of the enterprises with the physical distribution processes will be a factor providing a competitive advantage between the buyer demand and the enterprises.

The benefits of digitalization for consumers are as follows;

- Provides the use of cheap and fast information technology
- It provides instant and easy access to new products.
- The consumer can easily reach the entire market.
- You can see the product on the web without purchasing it. The customer saves time by seeing the product on the internet.
- Besides shopping places, it provides the opportunity to purchase in the home environment or from where it is located.



Literature review

1. Frankel, (2021) study says Economic globalization means that world employment and financial markets are intertwined. From an economic point of view, there are two macro factors that drive the globalization trend). The first is the reduction of barriers to the flow of goods, services and capital that occurs. The second factor is technological changes, especially the dramatic changes in communication, information and transport technologies in recent years. Müller (2014) claims that the most important article is the creation of a global information system, which is a global network of IT connections using the Internet. The information technology system is supported by both conventional and mobile phone networks.
2. Kersten, Wolfgang Blecker, Thorsten Ringle, Christian M (2017), This volume contains research contributions by an international group of authors addressing innovative and technology-based approaches for logistics and supply chains. They present business models and investment options for enhanced strategic decision making as well as recent approaches for supply chain risk management. This volume, edited by Wolfgang Kersten, Thorsten Blecker and Christian Ringle, provides valuable insights into the digitalization of Supply Chain Management and Logistics with regard to: Innovation and Technology Management, Advanced Manufacturing and Industry 4.0, Risk and Security Management.
3. Lianguang and Hertz (2017), "The logistics industry is constantly growing due to the growth of logistics firms and market integration. Some logistics companies are even among the largest in the world today." It is obvious that the Internet is one of the key factors in the development of digital logistics. Moreover, in the European Scientists Flint, Larsson, Gammelgaard and Mentzer (2016) articles, one of the main reasons why the logistics industry is considered underdeveloped is that "logistics research, innovation, modern concepts are almost neglected".
4. Hofmann and Rüsç (2017) discussed the opportunities of Industry 4.0 in the context of logistics management. The authors highlighted that products and services have to be connected in a flexible manner via the internet or other network applications like the blockchain technology, which allow that value networks are controlled decentral. They present evidence that the digital connectivity has the potential to enable an automated and self-optimized production of goods and services including the delivery without human interventions – i.e., self-adapting production systems based on transparency and predictive analytics.
5. Petticrew and Roberts (2016). In general, the authors focus on examining the current literature on digitization initiatives in the specific field of industrial logistics in manufacturing enterprises. The authors want to understand how this research topic has developed in recent years and how the results can be used as a starting point for new research initiatives. The subject of the research (conceptual boundaries) was defined using the terms "digitalization", "digital transformation" and the more general term "Industry 4.0". The authors used Scopus as the main source for systematic database queries, as it was identified as the most relevant database for scientific publications in the fields of industrial engineering and management sciences from a techno-economic perspective (Woschank et al. 2020a; Zunk 2018). In this context, comparison with similar databases (e.g., Web of Science) did not lead to significant deviations in the resulting research studies (Woschank et al. 2020a). By combining the keywords "digitalization", digital transformation or "industry 4.0" with the Boolean operator "OR" in the fields of "industrial logistics", "smart logistics" or "logistics 4.0"

RESEARCH METHODOLOGY

The data needed for the study is collected from the customers, through questionnaire. Analysis and interpretation have been done by using the statistical tools and data presented through tables and charts.

RESEARCH DESIGN

Random sampling has been adopted and the size of the sample of this study is 89 customers. This sample covers males only . The aim of the study is to find customer experience in digitalization in logistics. our customers are the organizations which require logistics services in their business to earn profit.

DATA COLLECTION METHOD

The data collected for the study consists of both primary and secondary data.

PRIMARY DATA

Any research study for the collection of the primary data uses the methods like Questionnaire, Interview and Observation methods has been used very frequently. Among these methods Questionnaire Technique being used as the most versatile of all and capable of interacting opinion and interventions was used for the purpose of data collection. The customers are the primary data.

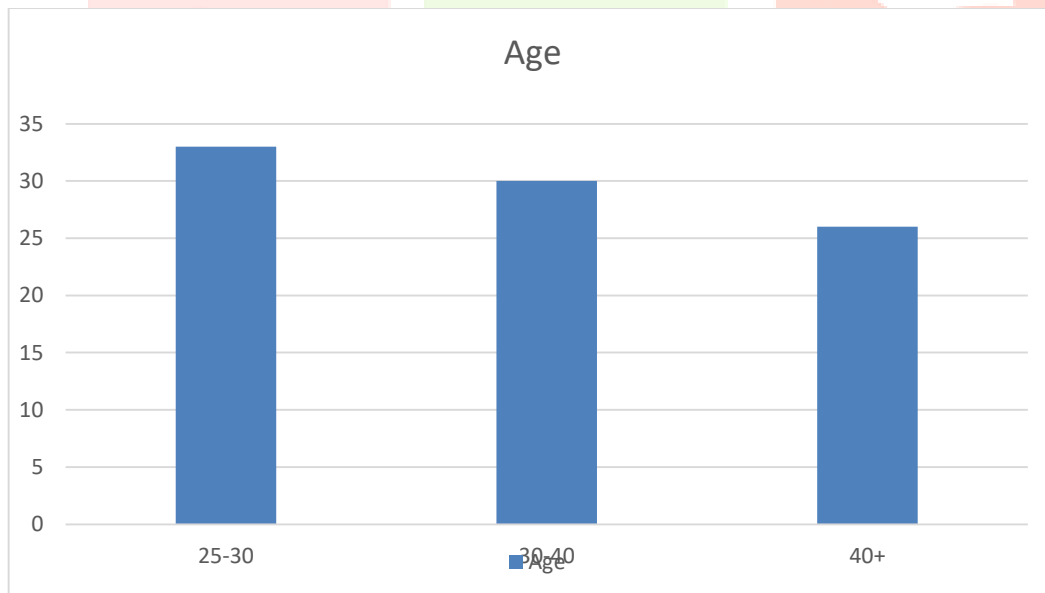
SECONDARY DATA

Secondary data for this study was collected from.
 By collecting information from the customers.
 By observing and studying the previous research studies.
 Book, Periodical and websites and by going through internet

Q. Age Group

- 25-30
- 30-40
- 40 above

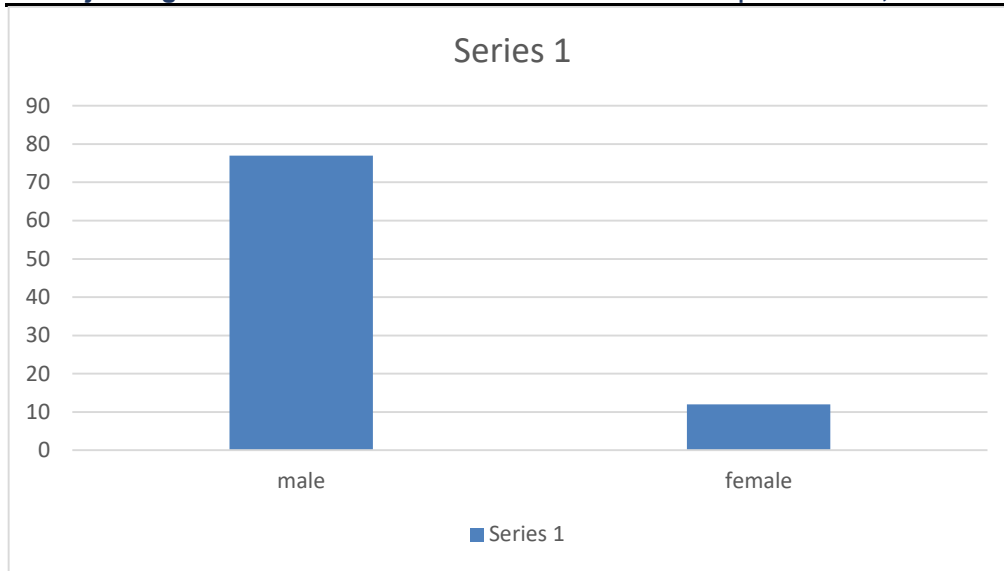
Response	25-30	30-40	40 +
Respondents	33	30	26



Q. Gender

- Male
- Female

Responses	Male	Female
Respondents	77	12

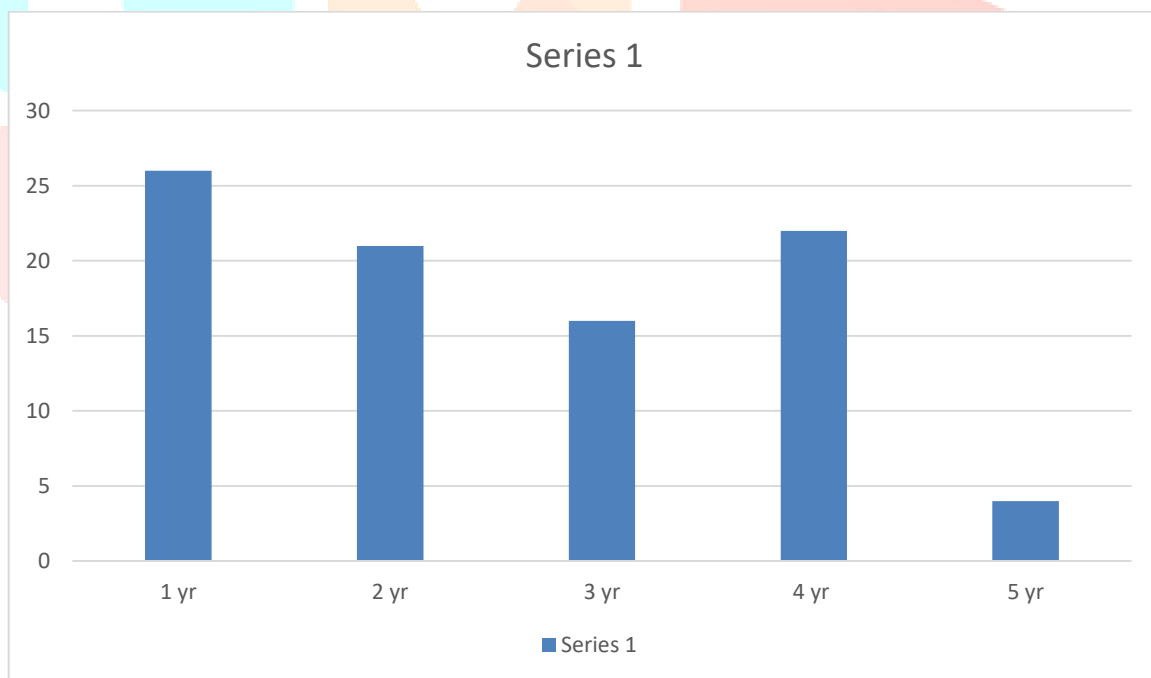


Q.1. Since how many years you are working with logistic company?

- (a) 1year (b) 2year (c) 3year (d) 4year (e) 5 & above

Sample Size : 89

RESPONSE	1 Year	2Year	3 Year	4 Year	5 & above
NO. OF RESPONDENT	26	21	16	22	4



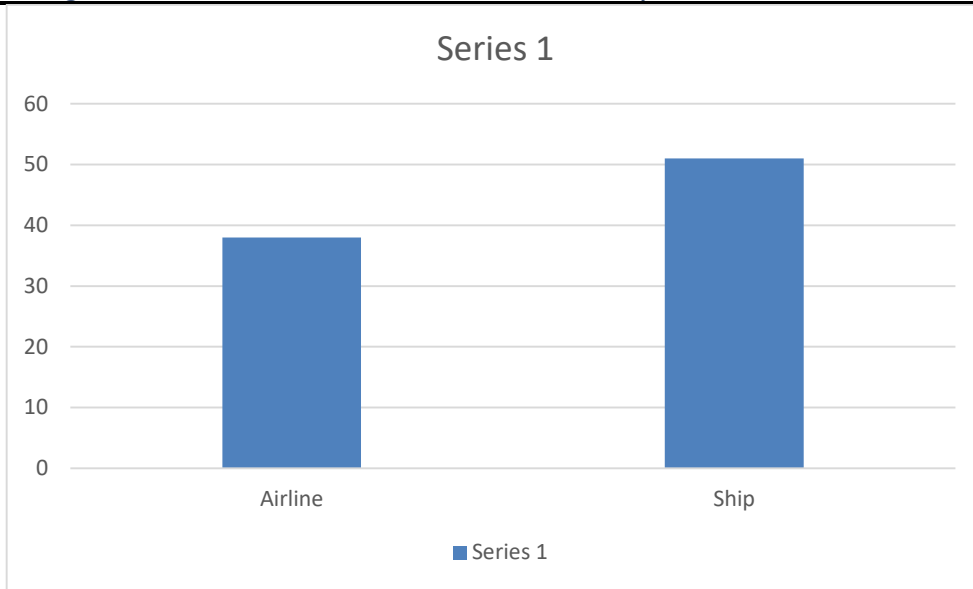
Data analysis :- In this survey we found that there are many new entries into the business as it is a growing business and also growing with a very high rate. The respondents out of 89 responses 26 members are dealing in logistic from 1 year and very few are dealing from a period of Above 5 were only 4 responses.

Q2. Which type of transportation model mostly used for distribution in international market?

- (a) Airline (b) By ship

Sample Size : 89

RESPONSE	Airline	BY SHIP
NO. OF RESPONDENT	38	51



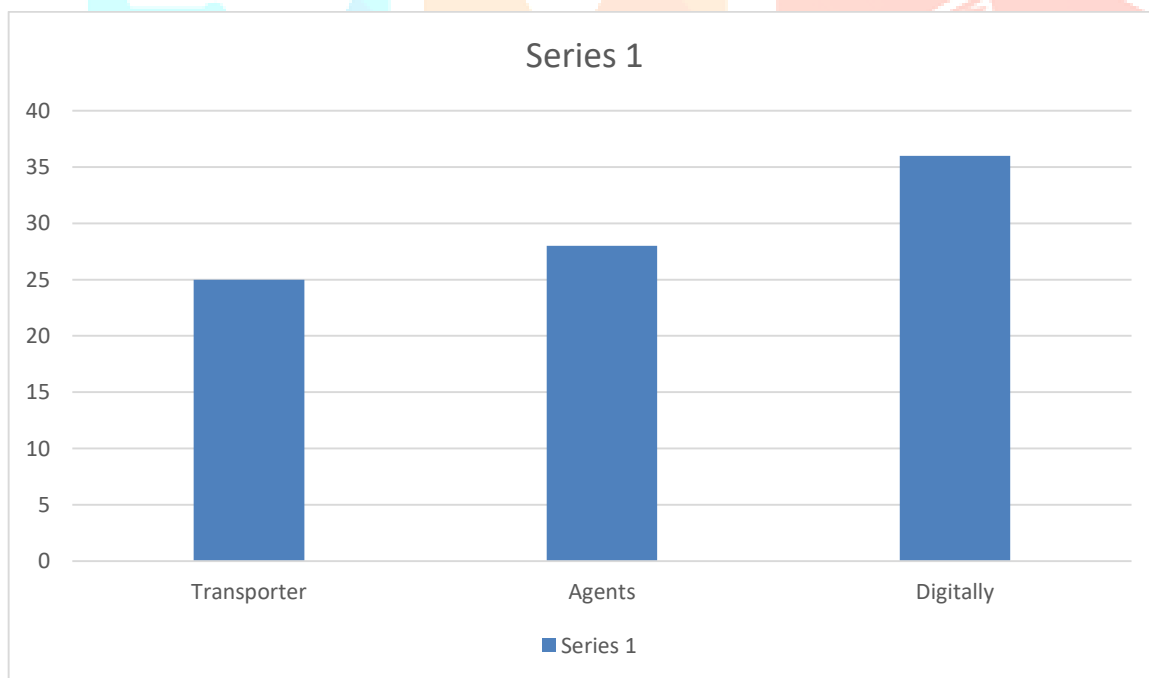
Data analysis :- In this survey we found that many companies find out waterways of transferring goods are easy method and also cheap compared to air transport we got a data out of 89 responses 51 responses were in favor of water transport.

Q3. Which type of booking model mostly used in logistic in international market?

(a) Transporter (b) Agents (c) Digitally

Sample Size: 89

RESPONSE	Transporter	Agents	Digitally
NO OF RESPONDENT	25	28	36



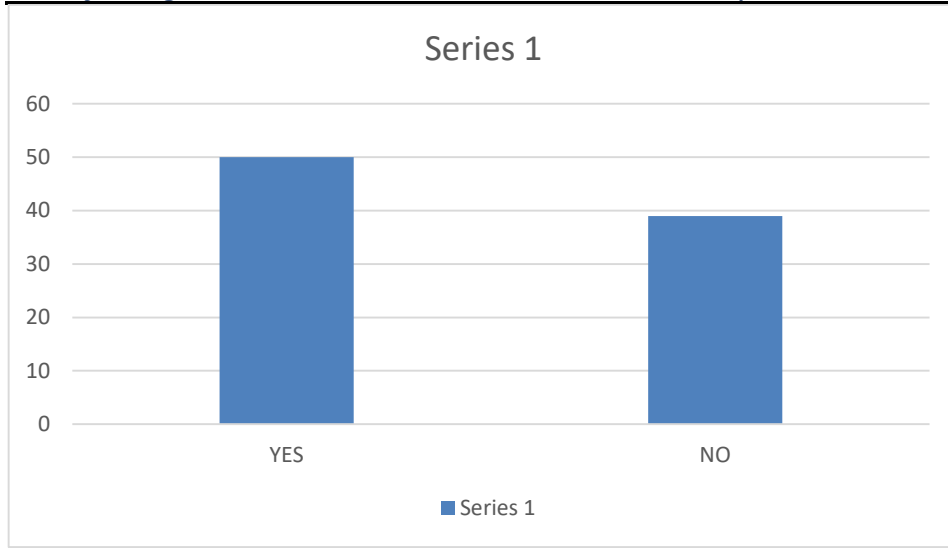
Data analysis :- In this survey we found that out of 89 responses 36 respondents were using the digital mode of booking services and rest used the old style of calling and booking systems.

Q.4 Is digitalization convenient to use in International logistics?

(a) Yes (b) No

Sample Size : 89

RESPONSE	YES	NO
NO. OF RESPONDENT	50	39



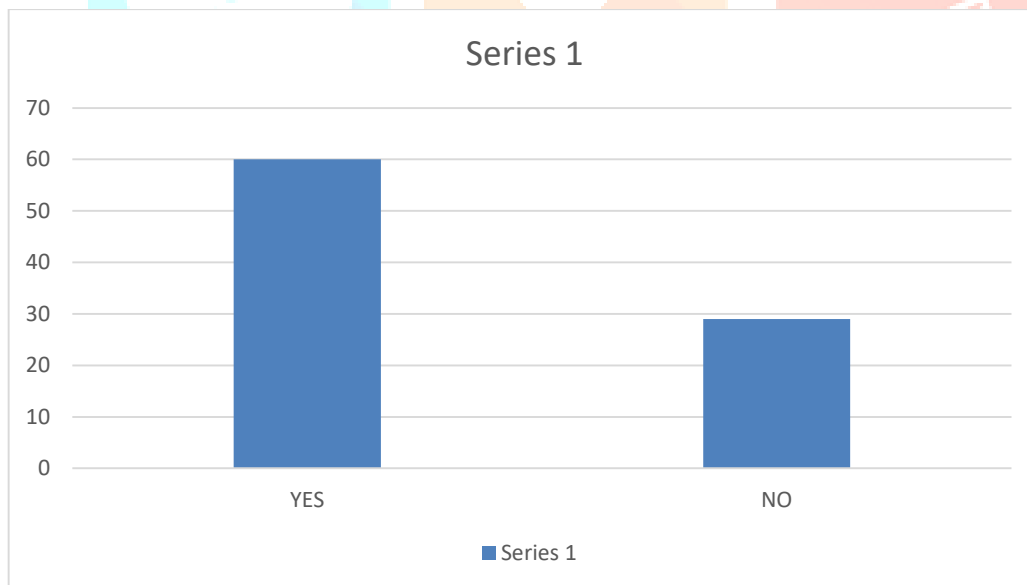
Data analysis :- In this survey we found that out of 89 responses 50 respondents were in a favour of convenience in using the digital platforms for logistics services.

Q.5 Are you satisfying with the precaution during handling and storage of goods in logistics ?

(a) Yes (b) No

Sample Size : 89

RESPONSE	YES	NO
NO. OF RESPONDENT	60	29



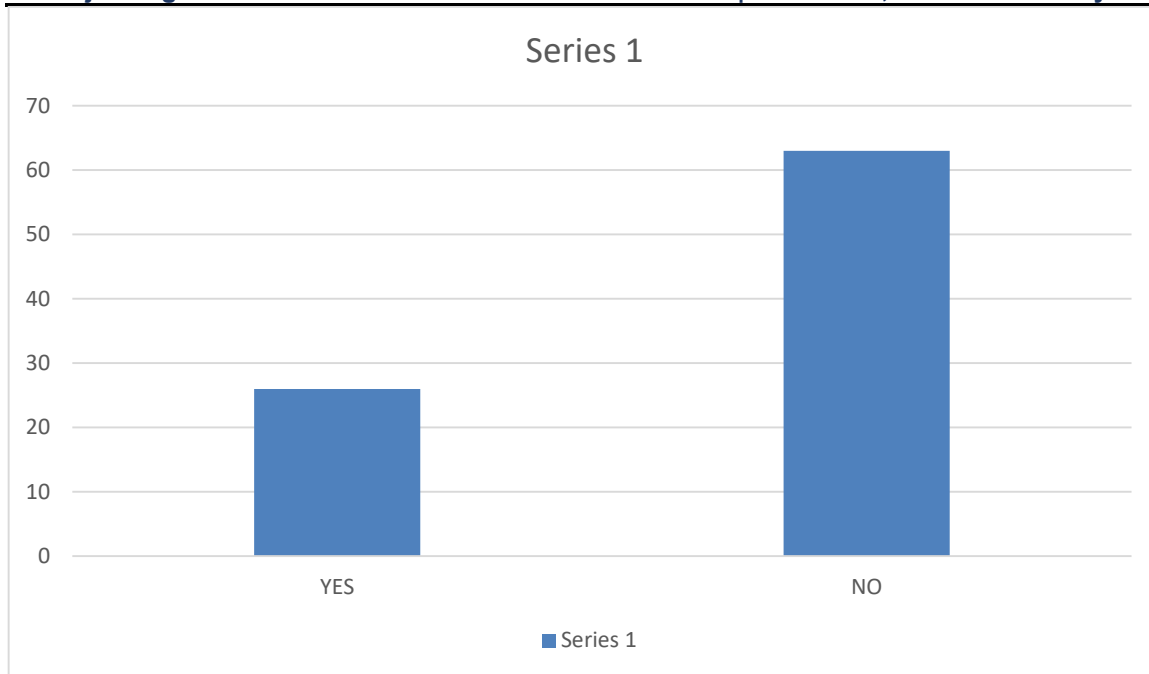
Data analysis :- In this survey we found that the existing players in the market were providing good services in cargo handling as reponses said 60 out of 89 were satisfied.

Q6. Does you logistics company provide real time tracking of you transit ?

(i) Yes (ii) No

Sample Size: 89

RESPONSE	Yes	No
NO. OF RESPONDENT	26	63

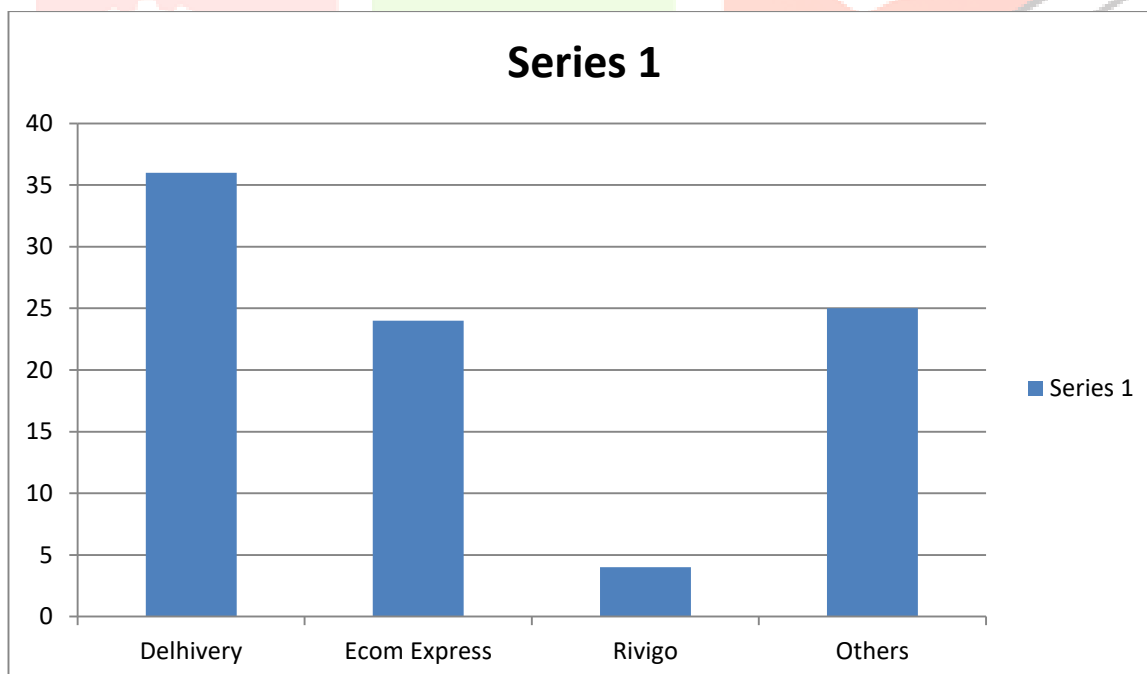


Data analysis :- In this survey we found that the companies are not providing the facilities of real time tracking of cargo as 63 out of 89 said NO.

Q7. Which digital website mostly preferred by you while using digital bookings

- Delhivery
- Ecom-express
- Rivigo
- Other __

Response	Delhivery	Ecom-Express	Rivigo	Other
No.Of Responses	36	24	4	25

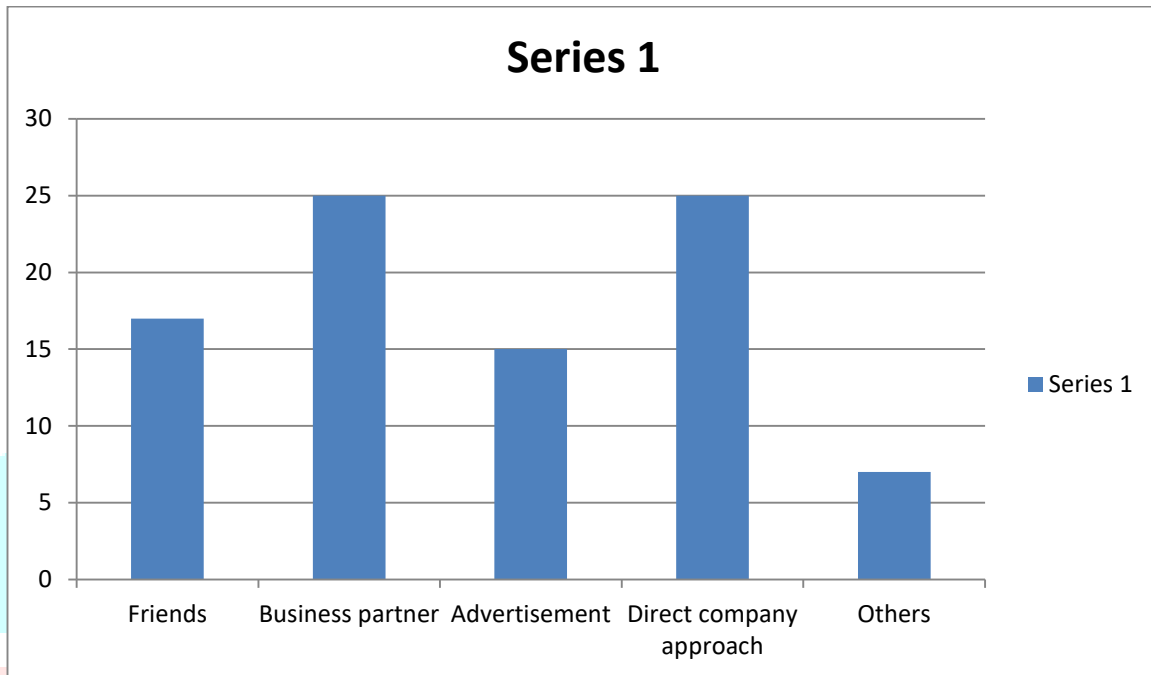


Data analysis :- In this survey we found that the industries are using the delhivery cargo services mostly as it is a reliable company and also very reputed part of amazon. The responses were as 36 out of 89 for amazon and 24 out of 89 for ecom express and rest choosed other loacal services out in market.

Q8. How do you know about digital services of the logistics in international trade?

- Through friends
- Business partners
- Advertisement
- Direct company approach
- Others _____

Respodents	Friends	Business Partners	Advertisement	Direct company approach	Others
Responses	17	25	15	25	7

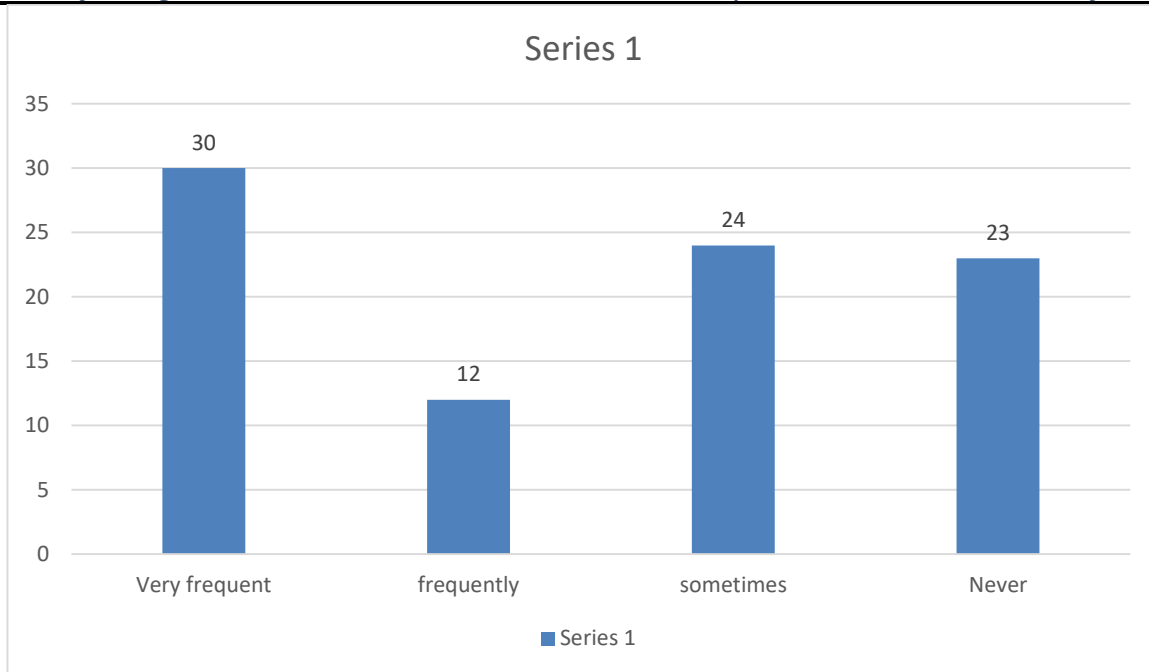


Data analysis :- In this survey we found that many companies knew about the digital services through mostly by the business partners and direct approach of the logistics company as data received gives 25-25 responses respectively for both out of 89 repondents.

Q9. How frequently you book freight forwarders online / digital mode in foreign countries during international trade in a month?

- Very frequently
- Frequently
- Sometimes
- Never

Respodents	Very frequent	Frequent	sometimes	Never
Responses	30	12	24	23

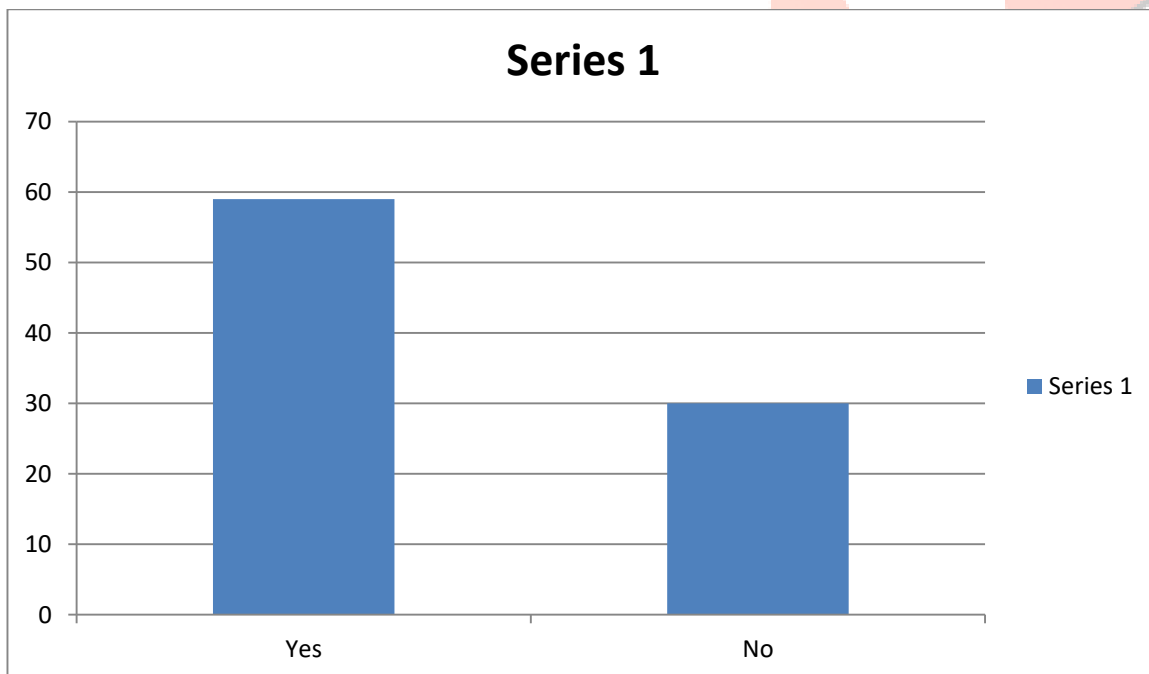


Data analysis :- In this survey we found that the responses out of 89, 30 booked very frequently using digital mode, 12 booked frequently, 24 used services sometimes and others never used.

Q10. Does digitalization in international logistics saves your time?

- Yes / no

Respodents	Yes	No
Responses	56	30



Data analysis :- In this survey we found that 56 reponses said that digitalization in logistics services saves their time very much and it became very easier for them to work with logistics services.

CONCLUSION

With the increase in the volume of international trade, it began to manifest itself in technological innovations. Countries have contributed significantly to the logistics process by developing new technological tools. These technological innovations provided great convenience in transporting goods. On the other hand, these technologies also provide manufacturing companies with the ability to provide quality products.

Technology is making a name for itself in many industries today. When human labor met technology, it began to be done with robots and web-based software. This change greatly affected people's lives. So much so that it has made business impossible without technology, connecting people's daily lives with technology.

To succeed in the global market, it is first and foremost necessary to be rich in digital capabilities. The more we apply digital capabilities to our business, the more successful we are in global business. In fact, having digital capabilities is not enough to be successful. It should also be used by experts in the field of digital systems management. Digital systems give a business a cost-effective marketing opportunity.

Digitization in logistics also affects customer requirements. It provides easy access to products with the participation of e-commerce in our lives. Comparing the customer to other products has led businesses to focus on the customer. Previously oriented goals have been replaced by customer orientation and market survival. To achieve these goals, the product portfolio should be improved and the quality and services provided to the customer should be fulfilled as best and as quickly as possible.

As mentioned above, digital tools are impacting our lives, national economies and businesses. Looking at the study in general, it can be seen that digitization has many advantages for the logistics process. Logistics is expected to provide faster and better services with increasing digital tools. Of course, this is not possible without digital system.

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