**DIALOGUE SOCIAL SCIENCE REVIEW**

# The Impact of Supply Chain and Logistics "Digitalization on Customer Satisfaction in international E-Commerce Retelling"

**Arif Hussain**
Karachi University Business School
Email: ah2683972@gmail.com

**SH. Prof M. Fakhr-e- Alam Siddiqui**
Email: farkhrealamsiddique@gmail.com

**Abstract**
E-commerce has revolutionized consumer purchasing experiences and try thing consumers access options to a greater selection of international products because of the swift expansion of international retail. The development of supply in and logistics technologies is mostly the reason Effective supply chain and logistics management are essential for international e-commerce retailers and SMEs to fulfill high customer expectations and stay competitive in today's global economy, in addition, the impact of SC and logistics technologies on customer satisfaction is not clear in international e-commerce retelling context. The study used a review of the literature and an electronic customer survey, to identify critical aspects that affect customer satisfaction and offer suggestions to international e-commerce retailers for supporting their supply chain and logistical operations.

Keywords: Supply chains, Logistics, Digitalization, Customer Satisfaction, E-Commerce, International Retelling.

## 1. Introduction

### 1.1 Overview

### A. Research Importance

International e-commerce opens new market opportunities and new chances for SMEs, stimulating and supporting economic growth. E-commerce has the potential to increase companies' access to diverse markets, especially small and medium-sized enterprises, according to studies conducted by the Organization for Economic Co-operation and Development (OECD, 2019). Local producers can also benefit from logistics services by selling their goods and sharing in the profits of the expanding global supply chains, which boost international trade, raise production levels, and broaden the distribution network (Lakshmanan, 2001).

The tremendous growth of e-retailing has created lucrative opportunities for e-retailers. It has attracted many online retailers, creating a crowded market and intense competition among them to gain customers. This has enabled online shoppers to switch between e-retailers with just the click of a button (Bhat, 2020). Shopping for goods

and services through online channels offer shoppers many advantages that were not available until recently. Such as access to many groups of products and sellers from all markets around the world, reducing search costs, also being able to compare, enhancing competition between sellers, and saving time (Valarezo, 2018).

82% of global consumers had at least one purchase from a foreign marchant, according to UPS. With the widespread availability of digital devices and the expansion of logistics capabilities. Online shoppers can access a greater selection of goods. brands, and cheaper products when they browse outside their own country (Frederick, 2015).
Businesses that raise the level of service of their current offerings and anticipate the needs of their customers will be able to stay ahead of the competition and secure a place in the market (Chen, 2019)

As a result, businesses must reevaluate their distribution networks, inventory, and supply chains (Roggeveen, 2020), It is commonly acknowledged that a company's ability to provide high-quality logistics services influences customer satisfaction, giving them a competitive advantage (Singh, 2021) There is a claim that businesses that fall to meet the demands of their clientele will eventually fail due to financial losses. (Agyapong-Mensah, 2019),

## B. Research Problem

Supply chain managers are constantly looking for methods to save costs and create more Integrated, flexible systems to maximize market value and adapt to the quickly shifting customer and market conditions (Addo-Tanko rang, 2016). Poor logistics services lead to reduced trade volumes due to increased costs in terms of money and time (Korinek, 2011).
Cross-Border E-Commerce Supply Chains shipping costs for online retailers who sell their goods overseas are now highly expensive, depending on the location, they can be up to five times more than the cost of a consignment completed within the nation. Purchasers from overseas are deterred since cheaper prices do not always offset the expense of delivery. It is among the biggest obstacles preventing the growth of international trade through the internet (European, et al., 2016).

Expectations from customers have also grown. These days, people anticipate receiving their items the following day, and shipment times are having an increasing impact on their purchasing decisions. According to a McKinsey survey, 46% of prospective buyers abandon their shopping carts because of excessively long or nonexistent shipment periods, and 35% of buyers decide not to make an online purchase because of lengthy delivery times (Akil, 2022). The amount of e-commerce has grown, which has made logistics operations more important and presented both opportunities and challenges for this industry (Akıl, 2022).
Logistic-related condemns, which include lengthy transit times, poor return policies, and expensive shipping, continue to be the biggest obstacle to enabling cross-border e-commerce because many of the products sold there need to be transported over great distances (Ding. 2017)

The literature lists several aspects that impact the quality of logistics services; however, due to methodological limitations, different studies employ different sets of notions (Akıl 2022). Numerous research has indicated that the caliber of logistics services influences client satisfaction (Grant, 2014). Due to intense competition, acquiring new consumers has become more costly, time-consuming, and labor-Intensive than keeping existing ones in recent years (Javed. 2020). As a result, companies now consider customer satisfaction to be a critical and strategic issue (Akil, 2022).

## C. Research Objective

Digital technologies are used in digital transformation to develop new business procedures and adapt to the ever-changing corporate environment (Abed, 2013). Organizations can shorten product development cycles and improve flexibility by implementing digital transformation (Agrawal, 2019), it has been demonstrated in the Literature that high-quality logistics services increase customer satisfaction (Suresh, 2020)

The purpose of this study is to explain the importance of supply chain and logistics technologies for customers in international e-commerce retail and how it is important for customer satisfaction, Chol et al. (2019) noted that there is a dearth of research on the quality of e-commerce logistics services. However, to the best of our knowledge, there aren't many studies looking at the connections between supply chain and logistics technologies and international e-commerce retailing. Therefore, further research is needed to help international e-commerce retailers to know more about customers' expectations and needs in international e-commerce retailing to fulfill it to satisfy them by investing in the technologies that the research will recommend.

## 1.2 Aim of thesis

The primary objective of this thesis is to understand the impact of supply chain and logistics digitalization on customer satisfaction in international e-commerce retailing.
This will be achieved by reviewing the literature and an electronic customer survey to understand the importance of supply chain and logistics digitalization on customers who shop online internationally, analyzing their answers, finding answers to research questions, and proposing appropriate recommendations to international e-commerce retailers.

This study thereby looks for the answer to the following questions:

Research Questions
A. How important are technologies in supply chain and logistics for customer satisfaction in international e-commerce retailing?
B. What are the most important technologies in the supply chain and logistics retailers are suggested to invest in to achieve customer satisfaction in international e-commerce retailing?

## 2. Theoretical framework

## 2.1 Overview of the relationship between supply chain digitalization and customer

**satisfaction**

Enhancing logistics services globally boosts the effectiveness of business operations (Gani, 2016). Support for commercial activities is still greatly influenced by the caliber of logistics services provided. With the least amount of expense and delay possible, supply chain participants can transport goods and services to customers using efficient logistics services (Shakur, 2022).

## 2.2 Supply chain and logistics technologies

### A. Automation and Robotics
Robots and Business Process Automation (BPA) are included in Robotic Process Automation (RPA). Technology consists of rule-based business operations and software licenses, or boots that mimic human behaviors and activities to automate tedious work. Productivity and competitiveness increase when RPA is implemented effectively because of the huge cost reductions and time savings (Viale, 2020).

* Kano model
Kano's model of customer satisfaction can be best used by knowing the demands of the consumer, their hierarchy, and their priorities as a prerequisite (Hauser, 1993).

Kano's model is used to determine the significance of specific elements of a product or service for the customer's satisfaction, hence creating the ideal environment for process-oriented product development activities (Gregorius's, 2004). Product requirements are better understood, and it is possible to pinpoint the characteristics of a product or service that have the biggest impact on customer satisfaction and can Focus on it (Gregorius's, 2004).

In Figure 4, the Kano diagram's horizontal axis represents a product's level of functionality, while the vertical axis represents consumer satisfaction (Wood, 1993).
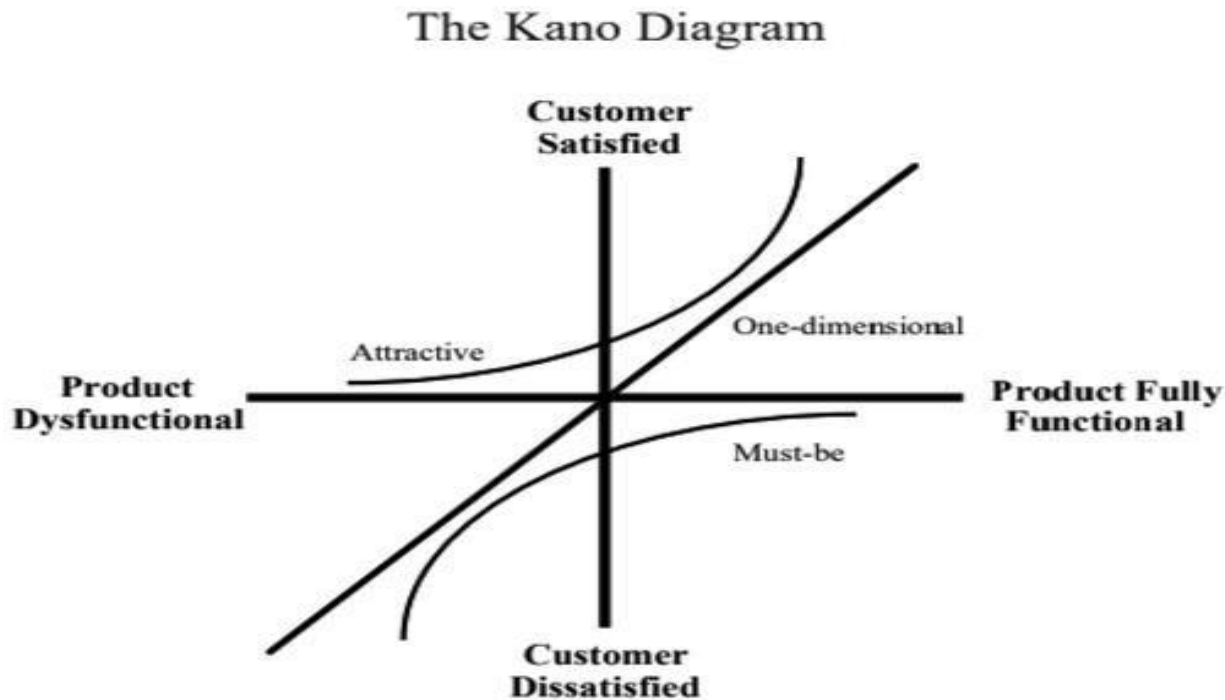
Figure 4. Kano's model of customer satisfaction (Source: (BERGER, 1993))

One dimension refers to services or functions that lead to customer satisfaction and if it is not provided this will lead to dissatisfaction (Wood, 1993).

Customer satisfaction correlated with the product's level of functionality (Gregorius's, 2004).
It is considered that the relationship between customer satisfaction and product functionality is simple: the more functional the product, the more satisfied the consumer; the opposite is also true. In the figure, the situation where customer satisfaction is directly correlated with product functionality, when a customer is more satisfied (up) with a more fully functional product (right) and less satisfied (down) with a less functional product (left) (Wood, 1993).

Kano's model is quite helpful during the product development phase. In the event that two product needs cannot be satisfied concurrently for technical or budgetary reasons, the most important criterion in terms of customer satisfaction can be determined (Gregorius's, 2004).
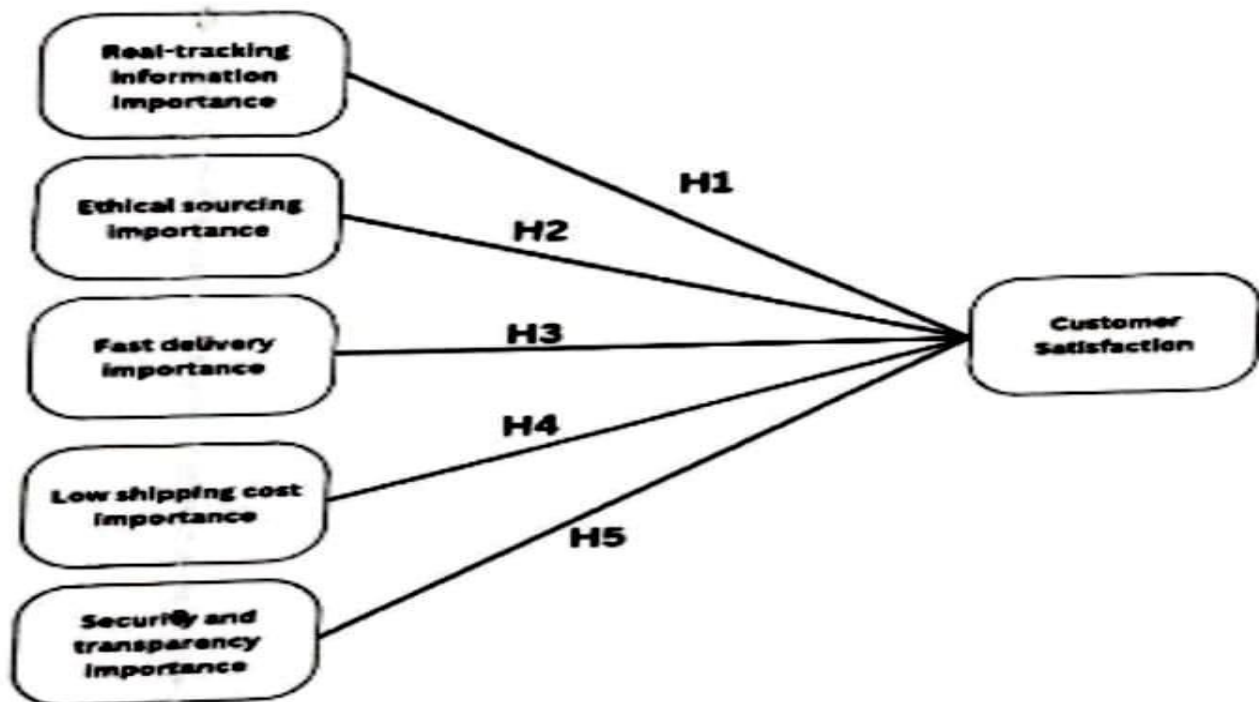
H3: There is a significant positive relationship between the importance of cheap shipping costs and customer satisfaction with cheap shipping costs.

H4: There is a significant positive relationship between the importance of security and transparency and customer satisfaction with a secure online shopping experience.

H5: There is a significant positive relationship between the importance of fast delivery speed and customer satisfaction with fast shipping delivery.

Figure 5: conceptual model (own source)

3.2 variable in the study

The variables for the study are :

| Independent: |
|---|

| Low shipping cost importance | Fast delivery importance | Ethical sourcing importance | Real time information importance | Security and transparency importance |
|---|---|---|---|---|

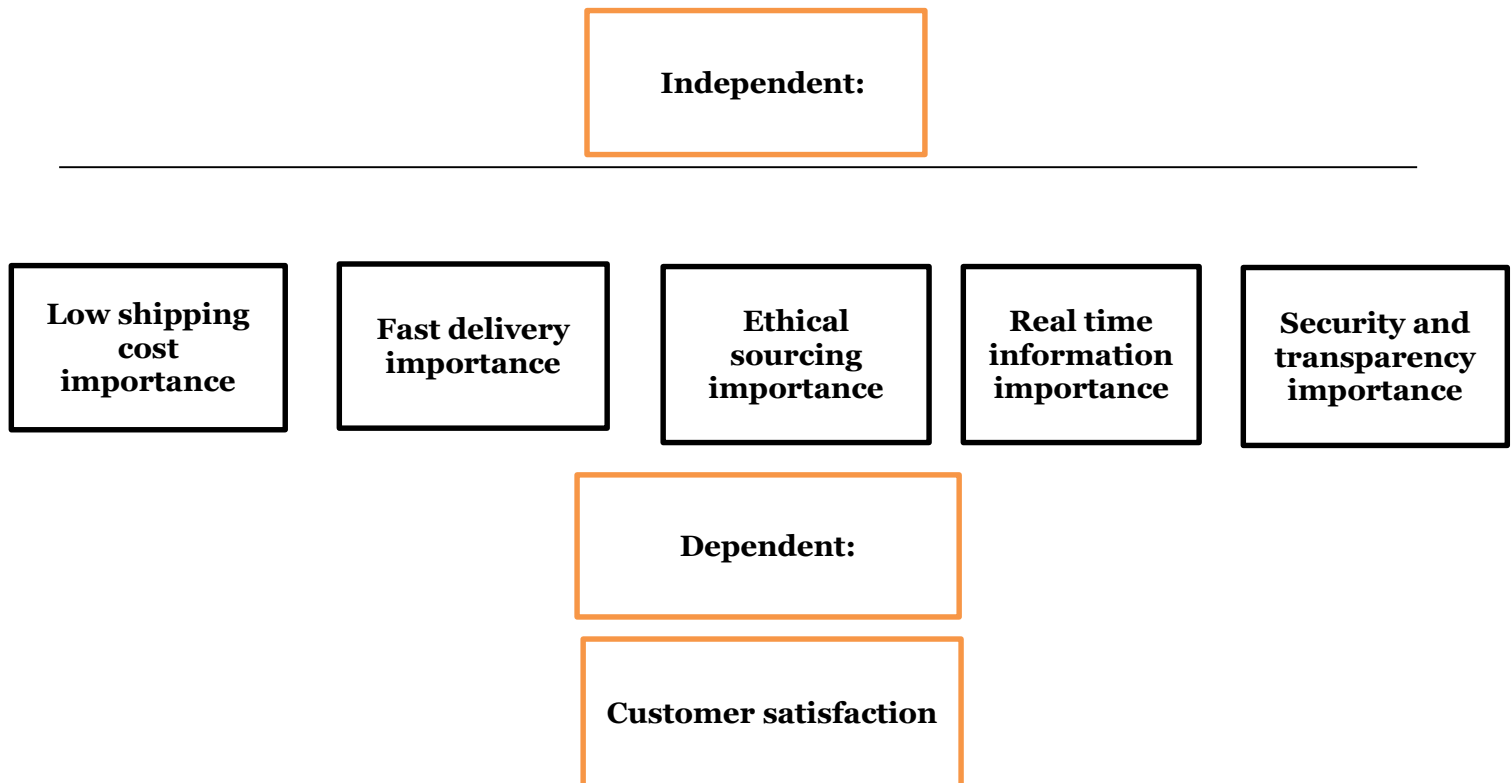| Dependent: |
|---|

| Customer satisfaction |
|---|

Figure 7: Dependent variables (own source)

## 3.3 Methodology

To test the hypotheses, a quantitative research methodology was used. Specifically, a survey was conducted to examine the relationship between the factors. The survey's objective was to collect data from a representative sample of the target audience, which includes internet shoppers.

The collected data was then subjected to statistical analysis to identify trends and validate the information. This methodological approach allows for a complete analysis of the correlations between the variables, providing valuable insights into the subject of the study.
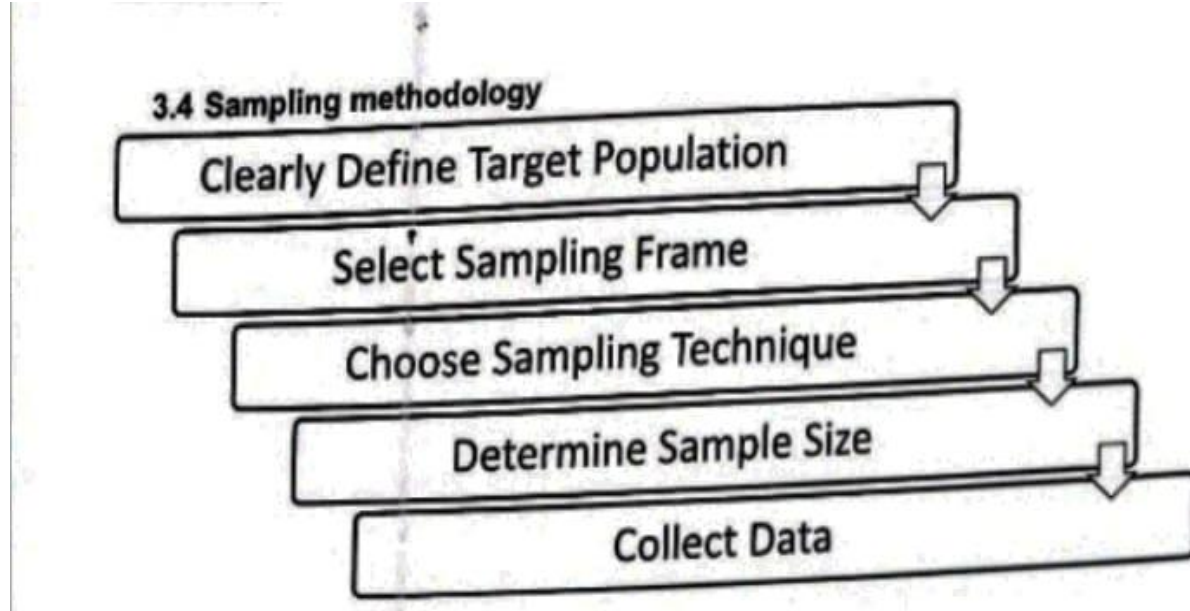
Figure 8: sampling process steps (source: Taher Dost, 2016)

## 4. Empirical analysis / research

## 4.1 Descriptive analysis.

## A. E-survey participants

Descriptive statistical techniques were mostly used in the analysis chapter to compile and analyze survey data. To characterize the response distribution for categorical variables such as gender, age groups, geography, frequency of online purchasing, and factors impacting online shopping experiences, frequency analysis was carried out. Relationships between several elements were explained, including those between gender and frequency of online buying, the significance of different factors, and the likelihood of suggesting businesses. A ranking study was conducted to figure out how crucial are different factors for people when they shop online. Comparing responses from various groups such as men and women about their online purchasing preferences and behaviors was the goal of the comparison analysis. The survey data was visually represented using visualizations such as tables, graphs, and charts, which helped to effectively communicate the main conclusions and correlations. All things considered, these descriptive statistical techniques offered insightful information about the internet shopping habits and preferences of the respondents.

A total of 197 Submitted questionnaires were returned, of which 24 were invalid (uncompleted), leaving 173 valid questionnaires (completed) (87.8%).

| variable | collected | valid (completed) | valid respondent rate (%) |
|---|---|---|---|
| E-survey participants | 197 | 173 | 87.80% |

Table 1: participants of e-survey (own source)

## B. Gender

The results of the e-survey show that, at 50.9% of participants, Females made up respondents more than males, while men made up 48%. Two of the respondents were 'divers/prefer to not say'.

| Gender | frequency | precent | cumulative |
|---|---|---|---|
| Divers/prefer not to say | 2 | 1.1 | 1.2 |
| Female | 88 | 50.9 | 52 |
| Male | 83 | 48.0 | 100.0 |
| Total | 173 | 100.0 | |

Table 2: gender (own source : created by SPSS 2024

## C. Age

The survey results show that participants' ages differ widely. 42.2% of the respondents are between the ages of 21 and 30. Another 25.4% of respondents are between the ages of 31 and 40.

Younger respondents, 13.3% of participants are under the age of 21 and older participants 13.9% of participants are between the ages of 41 and 50 are also represented, 4% are between 51 and 60. And 1.2% of respondents are 61 or older. To effectively customize international e-commerce tactics to satisfy the requirements and preferences of different age groups, it is imperative to comprehend the age distribution of responses.

| Gender | frequency | percent |
|---|---|---|
| Under 21 | 23 | 13.3 |
| 21-30 | 73 | 42.2 |
| 31-40 | 44 | 25.4 |
| 41-50 | 24 | 13.9 |
| 51-60 | 7 | 4.0 |
| 61 or over | 2 | 1.2 |
| Total | | |
| Total | 173 | 100 |

Table 3: age of participants (own source: created by SPSS 2024

D. Online shopping frequency

Participants' Internet shopping habits are revealed by the survey results. Of those surveyed, 2.9% said they never shopped online, and 27.2% said they did so rarely. while the majority, 41%, shop online regularly, and 28.9% shop online frequently.

| Oline shopping frequency | frequency | percent |
|---|---|---|
| Never | 5 | 2.9 |
| Rerely | 47 | 27.2 |
| Regularly | 71 | 41.0 |
| Frequently | 50 | 28.9 |
| Total | 173 | 100 |

Table 4: online shopping frequency (own source: created by SPSS 2024

E. International online shopping frequency

Participants' frequency of internet purchases from international e-commerce retailers was revealed by the survey replies. 9.8% of respondents said they never shop online from outside their nation, while 32.4% said they do so rarely. Furthermore, 37.6% of respondents said they shop abroad regularly and 20.2% frequently.

| International online shopping frequency | frequency | percent |
|---|---|---|
| Never | 17 | 9.8 |
| Rarely (Once or Two per Moth | 56 | 32.4 |
| Regularly | 65 | 37.6 |
| Frequency | 35 | 20.2 |
| Total | 173 | 100 |

Table 5: international online shopping frequency (own source: created by SPSS

F. Real-time tracking information is important for customers

The importance of real-time tracking information for participants placing online orders from foreign suppliers is underscored by the poll results. 32.9% of respondents think it's very important, and 11.6% think it's extremely important. Furthermore, real-time tracking is considered moderately important by 26% of respondents and slightly important by 23.1%. Not important 6.4% of the participants said that they do not find real-time monitoring information to be significant.

| Real time tracking information importance | frequency | percent |
|---|---|---|
| Not important | 11 | 6.4 |
| Slightly important | 40 | 23.1 |
| Moderately important | 45 | 26.0 |
| Very important | 57 | 32.9 |
| Extremely important | 20 | 11.6 |
| | 173 | 100.0 |

Table 6: real-time tracking information for customers (own source: created by SPSS
G. Tracking the ethical sourcing and production practices importance for customers

The electronic survey findings show varying degrees of importance on tracking ethical sourcing and production practices for customers when ordering online from international e-commerce retailers. Significantly more respondents 33.5% think it is Moderately important, and 28.9% think it is very important. Furthermore, 14.5% think it's extremely important. However, 6.9% said they don't think it was important, and 16.2% said it was only slightly important.

| Real time tracking information importance | frequency | percent |
|---|---|---|
| Not important | 12 | 6.9 |
| Slightly important | 28 | 16.2 |
| Moderately important | 58 | 33.5 |
| Very important | 50 | 28.9 |
| Extremely important | 25 | 14.5 |
| Total | 173 | 100 |

Table 7: track the importance of ethical sourcing and production practices for customers (source: created by SPSS 2024)
H. Cheap shipping costs are important for customers

The electronic survey's findings explain how different people value cheap shipping when they shop online from foreign retailers. 39.3% of respondents think it's very important, and 18.5% think it's extremely important. Moreover, 24.9% consider inexpensive delivery to be somewhat moderately important. However, only 13.9% of respondents said it was slightly important, and 3.5% said it was not important.

| Real time tracking information importance | frequency | percent |
|---|---|---|
| Not important | 6 | 3.5 |
| Slightly important | 24 | 13.9 |
| Moderately important | 43 | 24.9 |
| Very important | 68 | 39.3 |
| Extremely important | 32 | 18.5 |
| Total | 173 | 100.0 |

Table 8: the cheap shipping cost importance for customer (own source: created by)
1. Security and transparency importance for customers

The results of the e-survey highlight how crucial security and transparency are when placing online orders from foreign vendors. 43% believe it is very important, and 21.4% of respondents think it to be extremely important. Furthermore, 22% consider transparency and security to be of moderate importance. Conversely, just 10.4% of respondents said they thought it was slightly more important, 43.4% said it was very important, and 2.9% said they didn't think it was important at all.

| Real time tracking information importance | frequency | percent |
|---|---|---|
| Not important | 5 | 2.9 |
| Slightly important | 18 | 10.4 |
| Moderately important | 38 | 22.0 |
| Very important | 37 | 21.4 |
| Extremely important | 173 | 43.4 |
| Total | 173 | 100 |

Table 9: security and transparency importance for customers (own source: created By SPSS 2024)

J. Speed of delivery importance for customers

The importance of delivery speed while placing online orders from international e-commerce retailers is highlighted by the survey's findings. 41% of respondents believe it to be very Important,

and 24.3% of respondents think it to be extremely Important. Moreover, 18.5% think that delivery speed is moderately important. But only 3.5% said it is not important, while 12.7% said it was only slightly important.

| Real time tracking information importance | frequency | percent |
|---|---|---|
| Not important | 6 | 3.5 |
| Slightly important | 22 | 12.7 |
| Moderately important | 32 | 18.5 |
| Very important | 71 | 41.0 |
| Extremely important | 42 | 24.3 |
| Total | 173 | 100 |

Table 10: the speed of delivery Importance for customers (own source: created by SPSS 2024)
K. Potential to purchase more from international retailers in the future

The results of the e-survey show that respondents had a clear preference to shop more frequently in the future from foreign e-commerce sites. A sizable majority 59% stated that they intended to do so, whilst 41% said they would not.

|  | frequency | percent |
|---|---|---|
| No | 71 | 41.0 |
| Yes | 102 | 59.0 |
| Total | 173 | 100.0 |

able 11: potential to purchase more from international retailers in the future (own source: created by SPSS 2024)

L. Reasons for making customers try to buy a product online for the first time from outside your country

The survey results, which are displayed as percentages of the total replies, highlight the many motivations behind people's initial attempts to buy a product online from outside their nation. Remarkably, 64.7% of respondents chose fast international delivery speed as the most important feature. Furthermore, 35.8% of respondents cited the guarantee of the importance of ethical sourcing, whilst 52.1% placed a high priority on security and transparency. Low Shipping costs were also important, as noted by 56.6% of respondents. 38.1% of respondents selected tracking information as a reason to purchase online from international e-commerce retailers.

| Variable | category | n | percentage (%) |
|---|---|---|---|
| Reasons make Customers try to buy | low shipping cost | 98 | 56.6% |
| A product online for The first time outside your | fast international delivery speed | 112 | 64.7% |
|  | Ethical sourcing | 62 | 35.8% |
| Country. | tracking Information | 66 | 38.1% |
|  | Security and transparency | 90 | 52.1% |

Table 12: reasons make customers try to buy a product online for the first time from outside your country (own source: created by SPSS 2024)

M. Reasons make customers repurchase products online from outside your country.

The survey's findings, which are displayed as percentages of all replies, outline the factors that lead people to make repeat purchases of goods from overseas. Notably, 60.6% of respondents name affordable shipping as the most persuasive element. Furthermore, 45.6% cited security and transparency factors as important motivators, while 28.3% mentioned the importance of ethical sourcing. Rapid international delivery speed was also important, as indicated by 67.6% of respondents. Surprisingly, 46.8% of respondents selected tracking information as a reason to repurchase.

| Variable | category | n | percentage (%) |
|---|---|---|---|
| Reasons make Customers try to buy | low shipping cost | 105 | 60.6% |
| A product online for The first time outside your | fast international delivery speed | 117 | 67.6% |
| | Ethical sourcing | 49 | 28.3% |
| Country. | tracking Information | 81 | 46.8% |
| | Security and transparency | 79 | 45.6% |

Table 13: The reasons for making customers repurchase products online from outside your country. (own source: created by SPSS 2024)

N. Customer satisfaction because of real-time tracking information

The survey results indicate that one person among all the participants indicated that he is completely unsatisfied, 7 people are somewhat unsatisfied, 24 people are neutral, 81 people are somewhat satisfied and 60 people were very satisfied.

|  | frequency | percent |
|---|---|---|
| very dissatisfied | 1 | 0.6 |
| Somewhat unsatisfied | 7 | 4.0 |
| Neutral | 24 | 13.9 |
| Somewhat Satisfied | 81 | 46.8 |
| Very Satisfied | 60 | 34.7 |
| Total | 173 | 100.0 |

Table 14: Customer satisfaction with real-time tracking information (own source: created by SPSS 2024)

O. Customer satisfaction because of security and transparency

The survey results indicate that two people among the participants indicated that they are completely unsatisfied with security and transparency, 6 people are Somewhat unsatisfied, 27 people are neutral, 70 people were somewhat satisfied and 68 people are very satisfied with security and transparency.

|  | frequency | percent |
|---|---|---|
| very dissatisfied | 2 | 1.2 |
| somewhat unsatisfied | 6 | 3.5 |
| Neutral | 27 | 15.6 |
| Somewhat Satisfied | 70 | 40.5 |
| Very Satisfied | 68 | 39.9 |
| Total | 173 | 100.0 |

Table 15: Customer Satisfaction with security and transparency (own source: created by SPSS 2024)
Interpretation: There is not much of a difference, meaning that both sexes, males and females, engage in foreign online buying nearly equally.

Relation between Gender and international e-commerce shopping frequency
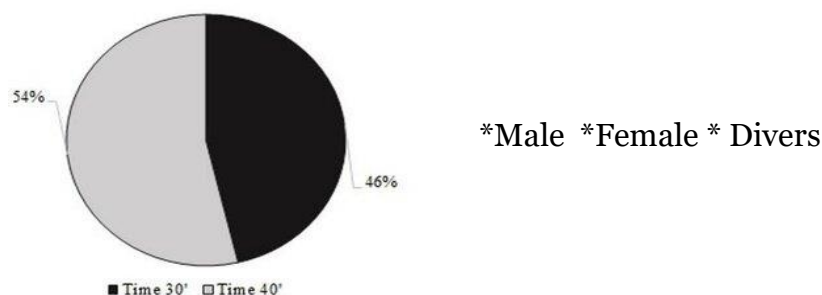
*Male  *Female * Divers

Figure 10. Relation between Gender and international e-commerce shopping frequency (own source)

C. Relation between gender and the importance of real-time tracking in international e-commerce retail

The correlation between gender and real-time tracking function for overseas internet orders is depicted in the graphic. It shows that real-time tracking is valued by both sexes but to varying degrees.

More specifically, 34 women and 22 men think it is "Very important," and 9 men and 11 women think it is "Extremely important" and two diverse people, the first said moderately important, and the other said very important.

In addition, 20 men and 24 women view it as "Moderately important." In the less important categories, 4 males and 7 females consider it "Not important," while 28 males and 12 females consider it "Slightly important."

Relation between Gender and the importance of real-time tracking for              international online orders
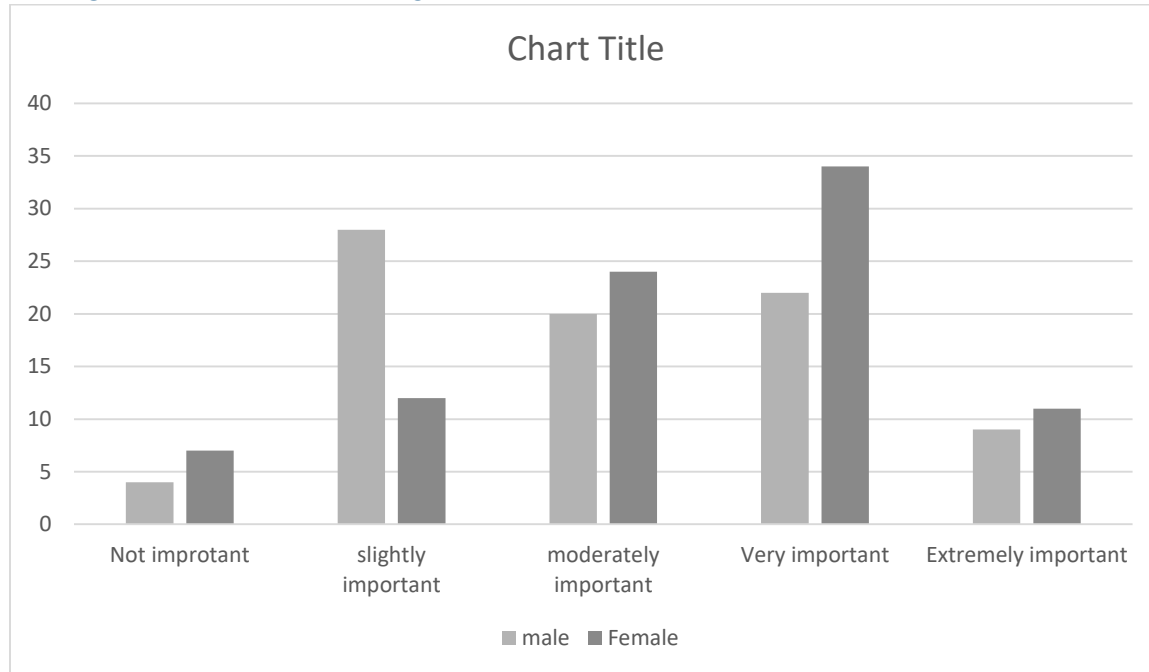
Figure 11: Relation between Gender and the importance of real-time tracking for international online orders (own source)

D. Relation between gender and the importance of the ability to track ethical sourcing and production practices in international e-commerce retail

The association between gender and the belief that monitoring ethical sourcing and production processes is important is shown in the chart.

27 males said "Moderately important" compared to 30 in the female. 24 females and 25 males rated tracking ethical sourcing as "Very important". Furthermore, only 15 females and 10 males believe that this ability is "Extremely important" and two diverse people, the first said moderately important, and the other said very important. At the other end of the spectrum, 15 men and 13 women consider it "Slightly important," and 6 men and 6 women think it is "Not important."

Interpretation: females generally show a higher preference for ethical sourcing.

## 2.4 Research gap
In the context of international e-commerce retailing, the importance of technologies such as RPA, Al, Internet of Things, Blockchain, cloud computing, UAVs and digital twins to improve customer satisfaction is completely incomprehensible and unclear.

The literature currently in publication recognizes the potential advantages such as increased transparency and ethical sourcing, faster delivery times, lower costs, and trackability but it does not include thorough studies that establish a direct explanation between these technologies and customer satisfaction in the context of international e-commerce retailing.

This study aims to close this gap by collecting data using an electronic customer survey and a comprehensive evaluation of existing literature.

The survey will be about what is important for consumers in international e-commerce retailing contexts and what makes them satisfied. This methodology not only tries to validate current theoretical frameworks but also offers guidance to international e-commerce retail companies who want to improve customer satisfaction by using the new techs.

By investing in the technology that the research recommends, they will be able to satisfy the demands and expectations of their customers in international e-commerce retailing by learning more about their needs and preferences through this study.

## 3. Empirical methodology

### 3.1 Hypotheses and conceptual model

H1: There is a significant positive relationship between the importance of real-time tracking information and customer satisfaction with real-time tracking information.

H2: There is a significant positive relationship between the importance of the ability to track ethical sourcing and customer satisfaction with ethical sourcing practices.

A. Clearly define the target population
The first step in sampling process was identifying the target population, which in this case included people who were residents of Egypt.

B. Select sampling frame
The study will utilize a comprehensive list of online buyers as the sampling frame, encompassing both those who have already made purchases from foreign e-commerce companies and those who plan to do so in the future.

### C. Choose sampling technique
Convenience sampling is a nonprobability sampling technique that involves selecting participants based on their accessibility (Hair, 2020). To reach the intended demographic, the online poll was shared on social media platforms.

### D. Determine sample size

The following formula for categorical data can be used to determine the sample size:
$n = p (100-p) z^2/E2$
n: is the required sample size, P (percentage occurrence of a state or condition): is the expected proportion of the population that has the characteristic of interest, E (percentage maximum error required), Z: (value corresponding to the level of confidence required).

## Vol. 3 No. 6 (June) (2025)

We use the sample size formula for categorical data to calculate the sample size needed to examine Egyptian internet buying habits. With a desired margin of error (E) of 8% and a confidence level (Z) of 95% and p =50%, the anticipated sample size for Egypt would likewise be roughly 151 respondents.

### E. Collect data

Researchers now have access to different methods of data collection because most people around the globe use computer networks (Jansen, 2007). The method used to collect data in research is Self-completion method. (E-Survey Methodology) (Hair, et al., 2011).

### 3.5 Main Target of the Survey

The study seeks to include the viewpoint of the customer. It also aims to determine the customer's priorities that help increase his satisfaction with his online purchasing experience from outside his country by clarifying the extent of the impact of each type of technology in the supply and logistics chains on customer satisfaction and determines its impact on the ability to recommend the experience to friends and families, of customers.

### 3.6 Survey Questions

To ensure clarity and ease of response, question types and answer choices were carefully chosen. The focus of the questionnaire is the goals and objectives of the research. All the questions are clear, concise, and objective.

It was done using the "funnel" method. The first section of the questionnaire consisted of wide, general questions that were simple for respondents to respond to. These inquiries encourage responders to fill out the questionnaire and encourage their participation. The most challenging questions, which require careful consideration, are positioned in the middle of the questionnaire. Lastly, there were generic questions that were simpler to respond to (Ikart, 2019).

A brief, clear, and visually appealing survey. Because most lengthy surveys are not finished, slang, technical terminology, and abbreviations were not used in the questionnaire. There was an excellent and clear layout, with straightforward language and response choices. A visually appealing questionnaire with harmonious colors and suitable font sizes was employed to enhance the questionnaire's performance in terms of readability, appearance, and feel (Iktar, 2019).

Questions 1 and 2: to accurately determine the sample, single-choice repetitive questions were used to measure the frequency of online shopping both locally and internationally (Saunders, 2009).
'Shop online from outside your country have been added instead of writing International E-Commerce retailers, this method provides clear, quantifiable data to reduce ambiguity and simplify analysis, allowing meaningful comparisons between different groups of respondents,
Questions 3-7: To assess the importance of various factors in the international online shopping experience, five single-choice importance scale questions (Wood, 1993) to provide a clear understanding of consumers' needs. In addition, the rationale is to determine the subjective importance of different items in a way that is easy to analyze and compare, identifying which factors are most important to respondents. The results highlight the relative importance of different factors,

which are crucial for companies aiming to improve customer satisfaction by understanding and enhancing the areas that consumers value most, such as low shipping costs, fast delivery, accurate tracking, and ethical sourcing, thus improving overall service quality.

Questions 8-10: Single-choice binary questions were used to understand if there is an increase in the future of international e-commerce retail (Saunders, 2009). To understand the impact of supply chain and logistics technologies on Initial and repeat purchasing decisions, multiple-choice questions are included (Saunders, 2009). These questions focus on factors such as low shipping costs, fast delivery, accurate order fulfillment, information tracking, security, and transparency (shop online from outside your country) have been added instead of writing International E-Commerce retailers. The Multiple-Choice format captures a comprehensive view of the items that drive first-time and repeat purchases from international online retailers. This method provides detailed insights into the diverse motivations behind purchasing decisions, identifying the most effective logistics and supply chain technologies in attracting and retaining customers.

Question 11: It consists of five questions, the questions aim to determine the level of satisfaction of the survey participants (Ghauri, 2020). This approach was used to know the Impact of the five independent variables low Shipping cost, fast international delivery speed, ethical sourcing practices, tracking information, and security and transparency on customer satisfaction in international online shopping.

Questions 12 and 13: To gain a comprehensive understanding of participants' backgrounds, demographic questions regarding age (Smart Survey, 2024), and gender (Delighted, 2024), by using a single-choice format for clarity and ease of response. This approach helps to accurately classify participants and analyze their responses in the context of their demographic characteristics. The rationale for demographic questions is to collect basic information to segment the sample and explore potential associations between demographic factors and other survey responses. Understanding the age distribution of respondents, gender diversity, and geographic location allows for a more effective interpretation of data and identification of trends for groups.