DESIGNING A USER INTERFACE FOR LIVE-STREAMING SHOPPING FEATURE BASED ON INTEGRATION OF CUSTOMER JOURNEY MAP AND ELECTRONIC SERVICE QUALITY (E-SERVQUAL) IN YOGYAKARTA.

UNDERGRADUATE THESIS

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AUTHENTICITY STATEMENT

In the name of Allah, I declare that this research entitled "DESIGNING A USER INTERFACE FOR LIVE-STREAMING SHOPPING FEATURE BASED ON INTEGRATION OF CUSTOMER JOURNEY MAP AND ELECTRONIC SERVICE QUALITY (E-SERVQUAL) IN YOGYAKARTA" is a work based on research that I did by myself except for the citation and summaries that have their sources listed. If in the future, this research is proven to violate the rules and intellectual property rights, I am willing to accept the sanctions by Universitas Islam Indonesia.

Yogyakarta, 25 October 2022

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PREFACE

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ABSTRACT

Starting from technological advances, all users can be facilitated by online shopping through several marketplaces, with this marketplace providing features as one of the marketplace marketing strategies. This study used an open and closed questionnaire and obtained 135 respondents and used data from 100 respondents who are domiciled in DI Yogyakarta and then examined using a predetermined method. In this case, it is necessary to measure the level of satisfaction and service quality of these features, by knowing customer expectations and experiences. This study uses Electronic Service Quality and Importance Performance Analysis in calculating service quality measurements and the gap between customer interests and marketplace performance. With these results, a Customer Journey Map was created to get the initial CJM and recommendations for CJM based on the results of the attributes that are in quadrant 1 or quadrant, which is the main priority. The results show that there are 5 dimensions of E-servqual that can be profitable but still have the main priority for improvement based on the IPA quadrant, as well as changes in CJM in all phases but only for some key components.

Keyword: Customer Journey Map, Electronic Service Quality, Importance Perfomance Analysis, Live-streaming Shopping, Marketplace

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CHAPTER I
INTRODUCTION

Chapter I discusses the scope of the Introduction, which contains why the author chose to research the quality of the services chosen, and how the quality of live shopping services in online transactions is formulated. The introduction also describes the formulation of the problem that will become or create the research question, the purpose of the study, the limitations of the problem, and the systematics of the research.

1.1 Background of The Problem

It is started from technological advances that facilitated users by the existence of online shopping through several large marketplaces that have entered Indonesia. This is evidenced by the research conducted "The state of e-commerce app marketing 2022" that Indonesia is number three after Brazil and India. This is also influenced by the increase in the number of applications installed on android phones, increasing by 70% in the period from January 2020 to July 2022. With rapid growth, of course, in 2022, the government, under the leadership of President Jokowi, targets 20 million MSMEs to penetrate the local market. During the Covid-19 pandemic, there have been 17.5 million MSME players who have entered the digital ecosystem. This achievement is not enough and must be improved. The target is 2023; 24 million MSMEs will enter the marketplace and 30 million in 2024. Johnny, as the Minister of Communication and Informatics of Indonesia Johnny stated that digitalization has become a solution for MSME and cooperative actors to survive and grow and even develop in the midst of a difficult situation. The government is taking advantage of the post-pandemic momentum to encourage the acceleration of digital transformation, helping all MSMEs can also participate in the development of digital technology and follow all renewable strategies from the marketplace (Nanda, 2021).

Entering 2022, the development of digital technology in a marketplace is also rapidly making a variety of new business strategies that are none other than utilizing between selling in a marketplace and the launch of Live shopping, in which previously sellers only installed a row of information, attractive images, and several more added videos on the sales page. Live shopping is a buying and selling

system that is carried out directly through an online platform. As a person who sells or offers goods, you can communicate directly with consumers. Marketplaces in Indonesia that use live-streaming shopping were sparked by Alibaba e-commerce, which was launched first through Lazada Indonesia, using the live-streaming shopping platform, Taobao. Livestreaming shopping came and then expanded in 2021, which based on the pandemic situation which increased from 13.6% in 2019 to 19.5% in 2021. Marketplace platforms in Indonesia according to Poll (JakPat) show the most user results as the survey results below: (Lita, 2022)

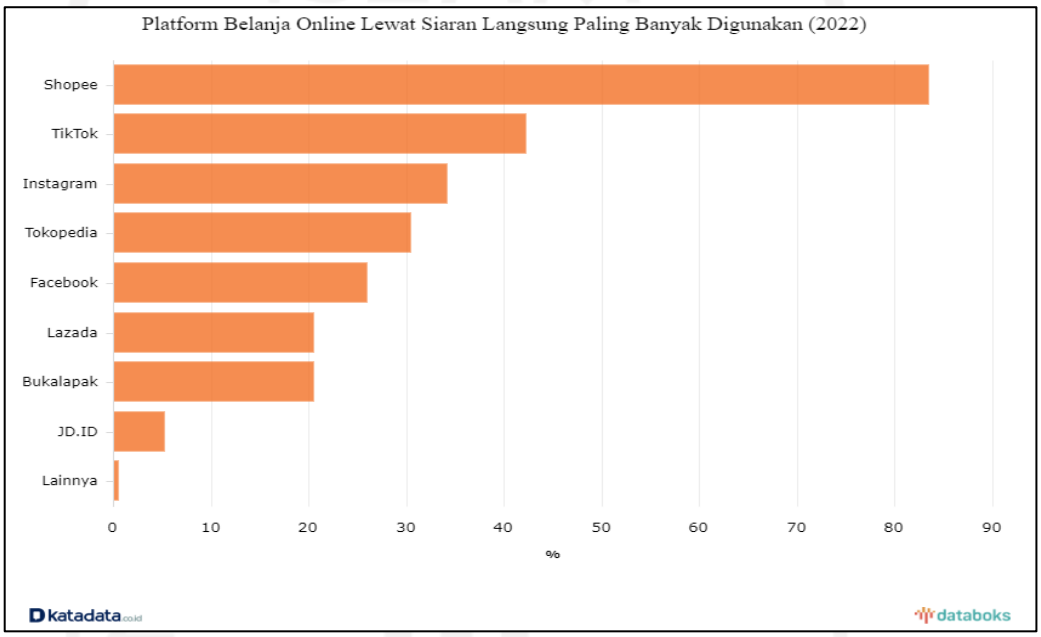

Figure 1. 1 Average Monthly E-Commerce Web Visits in The Second Quarter Of 2020
Source: Data books,2022

From the survey results, Shopee users dominate the most users in Indonesia from the data collected in 2022, which is as high as 83.4%. Tiktok, which is the latest marketplace launched in Indonesia, ranks second, with a percentage of 42.2%. Instagram, which is a social media and can also be a medium for live-streaming shopping, made Instagram get third place with a percentage of 34.1%. Followed by Tokopedia with 30.4%, with an insignificant difference from Instagram, followed by the existence of Facebook social media, which has a percentage of 25.9%. As well as for Lazada and Bukalapak, it has the same percentage gain of 20.5%. In the last position, it fell to JD.ID with 0.5% of the percentage (SImanjuntak, 2022).

Yogyakarta is one of the regions with the most online buyers: Depok, South Jakarta, Sleman, Padang, Yogyakarta. These 92 million users are Gen Z or millennials. Seventy-five percent of them regularly shop online, with a survey explaining that household groceries increased 3 times per year, health products such as masks, and cleaners increased 3 times per year, pet food and pet care products increased 3 times, books increased up to 2.5 times, and household carpentry increases up to 2.5 times (Dinisari, 2021).

Customer interest in conventional sales is different because sales by live-streaming shopping have a level of direct interaction between sellers and consumers, which can provide direct feedback on the product in terms of overall condition and appearance directly. According to Chen (2017), real-time interactions with streamers reinforce the consumer's enthusiasm to jump in and buy directly.

Based on previous research, live-streaming shopping has an influence on the attractiveness or interest of researcher customers sun, et al (2019) research conducted through platforms Taobao.com, JD.com, Mogujie.com, and Sina Microblog explained that product purchases are influenced from the perspective of information technology affordability which explains that affordability, metavoicing, and guidance. And according to research conducted by Tong (2017), it is explained the influence of attractiveness or interest of customers on a live-streaming shopping results in that the details of a product, interaction, and authenticity of a product in real-time videos can increase consumer buying interest and it can also increase customer trust in research is also important in increasing a sense of closeness between sellers and buyers.

In live-streaming shopping in Marketplace, there are several cons to its use, especially with the process which is different from conventional online shopping, live streaming broadcasts often display a chat window next to the streaming video. but not all users will see the clear explanation from the host or presenter, and the absence of mixed results or products (Thomas, 2022).

The need to know the performance of digital platforms, especially marketplaces. In this research, the priority is to improve live shopping services which are quite new with the background of the problem of differences in customer experience, interests, and fairly rapid growth, which makes me as a researcher believes in this. There is a growing interest in using live-streaming shopping within

the market. Basically, live-streaming shopping is a new thing, and well developed, and the marketplace can maximize the use of live shopping and can be fully accepted by customers. If the marketplace wants to improve the quality of live-streaming shopping feature and the customer can be fully satisfied what the live-streaming shopping feature, researchers need to know the customer experience, and also provide a suggestion based on what the customer feels if the marketplace can't make the customer fully satisfied, it can somehow become a problem. Because the investment will not be optimal.

With the background described, this study uses an analysis of customer satisfaction with the Electronic Service Quality (E-Servqual) method to facilitate shopping, purchasing, and distribution activities effectively and efficiently (Chase, Jacobs, & Aquilano, 2006). With the results of the gap between performance and interests, it is visualized through Importance Performance Analysis (IPA), the results obtained will be correlated with Customer Experience using the Customer Journey Map (CJM). Knowing the service attributes that become top priority becomes a basis for the user interface to be designed because each user interface requires a user experience, in this study obtained from CJM results that have been analyzed from IPA results..

1.2 Problem Formulation

Based on the description above, the author found the problems of this research would be:

1. How to improve the customer experience on the live streaming shopping feature in Marketplace?
2. Which attributes in E-Servqual are the top priority for an improvement on the live streaming shopping feature in Marketplace according to IPA?
3. How to design the user interface in accordance with the needs of the live streaming shopping feature in the Marketplace in improving service quality?

1.3 Research Objective

The objectives of this research are as follows:

1. To improve customer journey mapping of live shopping features based on customer expectations on the Indonesian Marketplace.

2. To find out what are the important research attributes to improve and improve to suit the wishes of consumers, the Importance Performance Analysis (IPA) method.
3. To design recommendations for the Indonesian marketplace user interface to help customers easily understand and use the live shopping feature

1.4 Scope of Research

There are some limitations of this research to focus on the main objectives; there are limitations to the problems applied in this study, namely:

1. Data collection was carried out by distributing questionnaires using google form media at this time so that researcher could reach Respondents widely to a random sample using an online questionnaire.
2. Data processing is carried out using a Customer Journey Map (CJM), Electronic Service Quality (E-Servqual), and Importance Performance Analysis (IPA).
3. The time for taking questionnaire data on the factor of customer expectations affecting buying interest was carried out from 16th September 2022 – 19th September 2022, then also collect the data was carried out to find out customer satisfaction with the live shopping features and services on the Marketplace, which was held on 16th September 2022 – 19th September 2022.
4. The object of this study is the marketplace of only customers in certain marketplaces, namely Shopee, Tiktok, Tokopedia, and Lazada.

1.5 Research Benefit

The expected benefits to be obtained from this study are as follows:

1. For Companies

   The results of the study can be used by relevant agencies to apply and use the results of this study to evaluate or become one of the input considerations in improving the quality of online transaction services to their customers so that it can help in improving the performance of the marketplace.
2. For Writers

This research can be new knowledge for authors in analyzing and knowing the influence of the quality of live shopping services in a marketplace. In addition, it also allows the author to apply the science of Service Management and Industrial Statistics in it.

3. For Researchers

   The results of the study can be used as a reference for further research related to service quality and customer satisfaction.

1.6 Thesis Structure

The following is the systematics of the Undergraduate Thesis, which is divided into six chapters so that the preparation becomes more structured. The series of thesis structure is as follows:

CHAPTER I INTRODUCTION

This chapter briefly describes the background of why this research is done and elaborated to be the basis for which it will be researched with the data and references obtained. The background of this research is because it looks at the high number of customers in the use of the marketplace and the use of live shopping features in the buying interest of customers. Researchers want to know the quality of service based on customer expectation data through the live shopping feature and the results of electronic service quality (E-servqual) after shopping. In addition, this chapter also explains the purpose of this study in assessing and analyzing the level of customer satisfaction and the limitations of this study in conducting an analysis of service quality during shopping using the live shopping feature. The benefits that will be provided to marketplace companies and possibly other parties related to the quality of service and customer satisfaction will also be described in this chapter. Finally, this chapter will also explain the structure of this study.

CHAPTER II LITERATURE REVIEW

This chapter contains some literature or basic theories from journals, books, websites, and other references related to the quality of service to a marketplace, customer satisfaction, and other

theories related to this research to support research and as a reference for problem-solving to find out what methods are appropriate to use in this study, as well as variables, parameters, and what items, which must be considered in assessing the quality of service and customer satisfaction. This chapter will also contain an inductive study, which is a brief description of previous studies that are similar and related to customer satisfaction with Marketplace services in Indonesia.

CHAPTER III RESEARCH METHODOLOGY

This chapter contains briefly and clearly the flow or steps of research to be carried out, including explaining the object of research studied, the type of data to be used, the stages of research, the tools used during the research, data collection methods, data processing methods, data analysis methods. Containing the object of research where the object of this research is Live-streaming Shopping on the Marketplace; the data used is the result of filling out an electronic service quality questionnaire with the target Respondents being people who have shopped and experienced the e-service Marketplace and the stages that have been carried out in the research concisely and clearly. This method includes a data collection method carried out using questionnaires with google form media, and data processing using SPSS to process tests carried out in this study, such as data reliability tests, data validity, and gap analysis. As well as customer journey mapping, quadrant IPA, and user interface which are used as a visualization tool for customer shopping journeys during live-streaming shopping on the marketplace

CHAPTER IV DATA COLLECTING AND PROCESSING

This chapter contains the process of collecting and processing data during the research, in this study using a questionnaire with google form media. The collected data will then be processed using such as data reliability tests, data validity, and gap analysis,

and what has been determined is by testing. The results of data processing will be interfaced and become a reference in the preparation of Chapter V, namely discussion.

CHAPTER V RESULT AND DISCUSSION

This chapter contains an assessment of the results of research data processing and analysis that has been carried out based on data processing. In this chapter, the discussion of processing includes an explanation of the results of calculations using the SPSS software obtained. Then, conducting analysis and discussion related to the results of data processing carried out in addition to being supported by data and calculations carried out is also strengthened by strengthening theories and analysis related to the design of existing customer journey mapping, gap analysis, quadrant IPA and recommendations for customer journey mapping and user interface based on the IPA results.

CHAPTER VI CONCLUSION AND RECOMMENDATION

The last chapter contains conclusions and suggestions. Conclusions will contain the results of the research, while suggestions contain input or improvements for related parties or for subsequent researchers.

CHAPTER II
LITERATURE REVIEW

This chapter contains the basic theory needed in conducting research related to service quality and customer satisfaction. Descriptions of previous research that have been conducted by other researchers and are still related to research on service quality and customer satisfaction are also contained in this chapter.

2.1 Deductive Study

The research was conducted based on technological advances and features that are always provided by the Marketplace as an effort to improve sales services and also the existence of a pandemic disaster that took place and resulted in the marketplace experiencing a rapid increase in the number of users and transactions due to the physical distancing policy and carrying out all its activities at home to prevent the spread of Covid-19 transmission. The increasing use of live-streaming in all marketplaces as a feature to meet needs where customers need more attractive interactions and clear product reviews, causing the author to want to assess and analyze the quality of services of the marketplace live-streaming feature based on the satisfaction of consumers who have transacted through the marketplace. To understand the concept of the research conducted, the author will explain some of the important points that exist.

2.1.1 Marketplace

A marketplace is an internet-based online media where business activities and transactions between buyers and sellers are carried out. Buyers can find as many suppliers as possible with the desired criteria to obtain according to the market price. Meanwhile, suppliers/ sellers can find out the companies that need their products/services. Basically, the marketplace is almost the same as the traditional market that brings together various sellers with many buyers who make transactions, and it's just that the marketplace is in the online realm that offers efficiency in transactions. The marketplace itself can be divided into four types, namely B2B (business to business), B2C (business to customer), C2C (customer to customer), and C2B (customer to business). (Franc, 2019)

2.1.2 Service Management

In the Big Dictionary of Indonesian, quality is defined as the degree of whether something is bad or a grade. According to Philip B. Corsby (1986), quality is also defined as the level of intelligence, proficiency, and so on. According to Gasperz (1997), quality management can be said to be the entire activity as a whole of the management function that determines the improvement of the ability of quality through quality management tools.

2.1.3 Electronic Service Quality Method (E-Service Quality)

Electronic service quality (e-servqual) is a development of a method of service quality (servqual) method where the subject applied in the method also developed from traditional, which then penetrated into electronic media. The service quality method itself is a method used to determine the quality of service of a service through the identification of a gap between the perceptions expected by consumers and the real conditions felt by consumers. According to Zeithaml, Parasuraman, and Maholtra (2002) is defined as the ability of a site to provide effective and efficient facilities for online shopping, online purchases, and the acquisition of goods or services.

In the E-Service Quality research conducted by Zeithaml, Parasuraman and Maholtra (2005), it is explained that there are dimensions needed that are used to identify the five dimensions of service quality used in measuring service quality. The traditional model was developed into seven dimensions into two parts, namely Electronic Service Quality (E-ServQual) and Electronic Recovery Service Quality (E-RecServQual), with details as follows:

Electronic Service Quality (E-ServQual):

1. Efficiency: speed and ease of accessing the site.
2. System availability: all technical functions of the site that run correctly.
3. Fulfillment: how the site meets expectations or expectations in all sorts of transactions, delivery and availability of goods or services.

4. Privacy: provides security guarantees for information or personal data of customers
5. Responsiveness: How sites Respondents quickly
6. Compensation: How management compensates customers in case of problems
7. Contact: Availability of customer service on the site by telephone or representative in an area

The use of E-servqual is a decision to evaluate a service provided on the Internet network, where in this research case study uses a media marketplace, namely a digital platform using seven dimensions, namely efficiency, system availability, fulfillment, privacy, responsiveness, compensation, and contact. It is different from traditional service quality by using 5 dimensions, namely Tangible (tangible), Empathy (empathy), Reliability (belief), Responsiveness (responsiveness or responsiveness), and Assurance (reliability). The service quality method, it is in the form of direct physical and direct service delivery without an internet network medium.

With differences in several dimensions such as efficiency, system availability, fulfillment, privacy, responsiveness, compensation and contact. Explain in detail the differences in the services provided, such as efficiency which explains in more detail the ease of access and use of live-streaming shopping, in system availability having all the technical functions of the site running correctly is a development of tangibles, and for fulfillment which is fulfillment expectations or expectations in all kinds of transactions, delivery and availability of goods or services including the development of empathy in traditional servqual, for responsiveness is a dimension that is also owned by traditional servqual, and the last is compensation is a development of the assurance dimension. However, privacy and contact are dimensions that are owned by e-servqual to provide security guarantees for customer personal information or data on the internet network, it is very easy to know and use personal data, as well as the availability of customer service on the internet site.

2.1.4 Customer Satisfaction

Customer satisfaction is the most important factor in various business activities. Customer satisfaction is the consumer's response to the evaluation of the perceived discrepancy between the previous expectations and the perceived performance of the product. According to Gerso Ricard in Sudarsito (2004) states that "Customer satisfaction is the customer's perception that his expectations have been met or exceeded." Customer satisfaction is the customer's assumption that by using a certain company's product and its expectations have been fulfilled.

2.1.5 Importance Performance Analysis (IPA)

According to Martilla and James (1977) in Sulaiman et al. (2018), Importance Performance Analysis (IPA) is a method of assessing service quality based on the level of importance and performance of a service by the end user. The concept of the Importance Performance Analysis method was developed by the service quality method, where the e-servqual concept analyzes gaps or gaps from customer expectations or expectations with consumer reality or perception. At the same time, the concept of the Importance Performance Analysis method analyzes the level of importance of certain variables based on the performance of an organization so that the organization can know which variables are important for noticed in order to be more valuable to the organization in the eyes of customers. The results of the analysis of the Importance Performance Analysis method are depicted through a two-dimensional graph represented by the X and Y axes, where X represents the

company's performance appraisal score, and Y represents the consumer interest assessment score so that it will four quadrants are obtained in the graph.

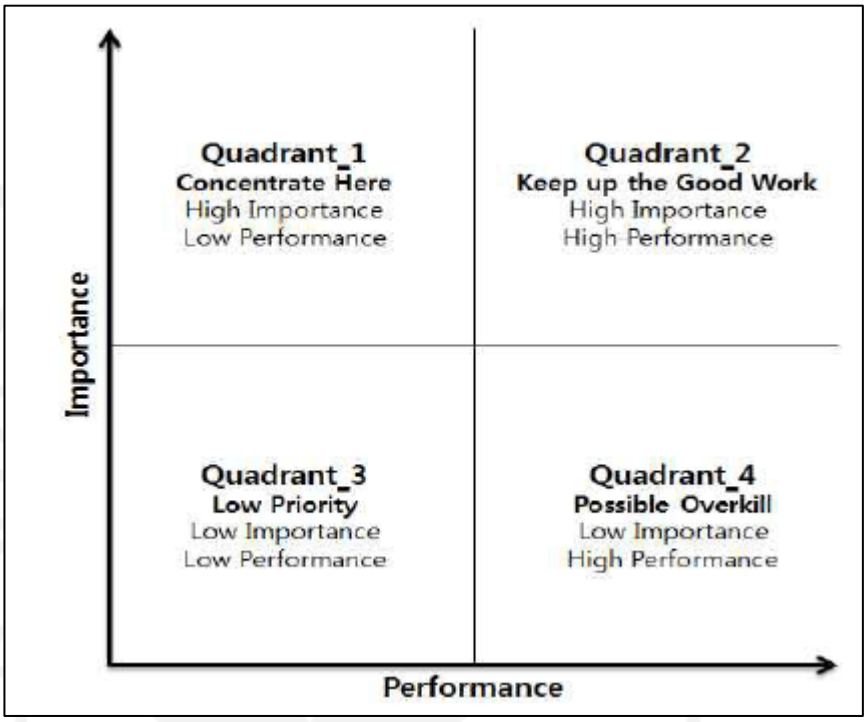

Figure 2. 1 Quadrant Importance Performance Analysis Source: Martilla and James (1977)

1. Quadrant A Concentrate Here (Top Priority)

   This quadrant has a high level of importance but in reality, the performance perceived

   by customers is still low and unsatisfactory. This quadrant is considered a very important factor, so the factors contained in this quadrant can be the top priority of the improvements that will be made by the company.
2. Quadrant B Keep Up the Good Work

   This quadrant has an equally large level of importance and performance, so it is considered important and expected that it has successfully met customer expectations or expectations.
3. Quadrant C Low Priority

This quadrant is the opposite of quadrant B, where this quadrant has the same low level of importance and performance. Factors that fall within this quadrant have a low level of satisfaction but are not considered too important to the customer, so they do not need to be prioritized too much by the company.

4. Quadrant D (Possible Overkill)

   This quadrant has a low level of importance but high performance, so it is considered excessive.

2.1.6 Customer Journey Mapping

According to Clinehens (2020), there are several steps that need to be taken in designing a customer journey mapping, including the following:

1. Step 1 – Research

   Research is the initial stage in designing CJM. This stage is necessary to define the purpose of designing CJM, and defining each question that will be needed in data collection. In data collection, there are several ways that can be done, namely conducting interviews, surveys, and Focused Groups Discussions. In this study, data collection was carried out through surveys using google forms in the form of questionnaires.

2. Step 2 – Define your persona

   The next stage is to define the persona, which we often know as demographic data, where researchers need to find out which customers are male or female, what are the jobs of customers, how often they shop through the marketplace, and what types of goods they often buy through the marketplace.

3. Step 3 – Populate the Think, Do, Stop Model

   The next thing to do is to study the data that has been obtained and then design it to model CJM. In designing CJM using phase and key components intended for the marketplace, according to Clinehens (2020). As for the phase used:

   a. Discover

      The initial stage is discovered when customers search the marketplace based on the goods they are going to buy.

   b. Consider

Consider is the process of customers considering making transactions based on several things, such as price, quality, and trust.

c. Purchase

Purchase is the process of customers making purchases and checkout items to be purchased and making payments.

d. Wait for Delivery

At this stage, the customer waits for the goods to arrive at the intended address and checks periodically regarding the presence of the goods through the receipt number provided.

e. Receive and wear/use the product

This stage is the final stage, where the customer gets the desired item and uses the item to ensure that the size, color, and function is correct.

The key components used are as follows:

a. Verbatim (Think)

Customer verbatim things that are said according to the customer during or have experienced practice.

b. Customer Actions (Do)

Customer actions are steps taken by the customer before/during/after experiencing the experience.

c. Pain points (Stop)

Customer pain actions are obstacles felt by customers that can result in dismissing the customer's intention to shop.

d. Goals

Customer Goals are goals that customers want to achieve from every stage they feel.

e. Touchpoints

Customer touchpoints are any things or tools that customers interact with while interacting with the marketplace.

f. Emotional Journey

The emotional journey is related to the visualization of the customer's reaction to the feelings he feels during the experience

g. Ideas/Opportunities

Ideas/opportunities are related to the customer's desire for how the marketplace should be to the pain points they feel.

2.1.7 User Interface

UI (user interface) is an interface design that is more focused on the beauty of an interface, good color selection, and other things that make the e-commerce web interface more attractive. User Interface is a design that connects human and computer interactions, so that humans can complete a goal. It is mentioned that the User Interface (UI) creates an emotional bond with the user through an attractive and beautiful design. Usually, the UI will be implemented or done after the UX is complete by determining the layout design, logo, colors, typography, and other things to beautify your e-commerce web (Pratama & Cahyadi, 2020).

2.2 Inductive Study

Inductive Studies contain previous research journals related to this research topic. Some research journals are summarized in the following table

Table 2. 1 Inductive Study

No	Title, Author, Year	Background	Methodology	Result	Conclusion
1.	Analysis of the Quality of Call Center Project Kartu Prakerja Services at Mitracomm Ekasarana to the Satisfaction of participants Using Servqual and Importance-Performance Analysis (IPA) Methods	The purpose of this study is to help the Call Center Project Kartu Prakerja Services at Mitracomm Ekasarana for the level of service quality in determining the measure of customer satisfaction service quality which has an impact on the performance of employees of the Pre-Employment Card Project Call Center.	Research methods using Service Quality analysis from the results of questionnaires given to customers or participants to find out the GAP value between perception and expectations and the Importance and Performance Analysis method to find out the category of an attribute.	The result of the study is that the quality of service provided by the pre-employment project call center has not met the expectations of participants because the quality value (Q) is calculated as the value of service quality which is very large in the tangible dimension of 0.766, and the smallest is the reliability dimension of 0.769.	The conclusion can be seen from the results of the cartesian diagram on the IPA method, quadrant A, as can be seen for easy access to call center services, can be accessed anytime and anywhere is the top priority.

No	Title, Author, Year	Background	Methodology	Result	Conclusion
	(Komariah, Rimawan, Lestari, & Handayani, 2021)			With the average quality of service in each dimension is 0.8.	
2.	Customer Journey Mapping of a Public Mobile Application: The Case Study of a State Electricity Enterprise (Sarawut & Campiranon, 2021)	The rapid development makes the government need to put forward societal needs and expectations. Until now, key performance has become an important indicator for government-owned companies. So, the government must be able to use State Electricity Enterprise through the	The method used in this study is Customer Journey Mapping as a customer journey mapping	The result is a change towards goodness or improvement by SEE, by producing application icon designs, file installation appearances, social network facilities, and three language facilities, namely Thai, English, and Chinese, and visualizations to interface dynamic electrical rates.	Despite the changes, this government-owned company wants to meet customer needs and increase satisfaction with services. And this research wants customers to understand the use of services both online (Application) and offline.

No	Title, Author, Year	Background	Methodology	Result	Conclusion
		design of customer journey mapping.			
3.	Application of Revised Importance–Performance Analysis to Investigate Critical Service Quality of Hotel Online Booking (Jou & Day, 2021)	The increase in tourist on tourism does not rule out the possibility of increasing the risk to the results of the tourist experience. Because with the results of the review provided by the tourists, it can also affect the decision of the next tourist. And hotel customer satisfaction is created by loyalty. According to research, credibility, the vagaries of services, technological contradictions, and	Conducting research using questionnaires based on knowing the quality of e-travel services by providing questions consisting of 5 aspects of quality, namely information, security, website functionality, customer relationships, and responsiveness.	The results of this study resulted in 453 Respondents with 37.5% male Respondents and 62.5% female Respondents, explaining that the five aspects of the questionnaire having the highest weight on the web system do not provide personal information, is easy to find information, the site strongly protects the security of credit cards, provides	The conclusions that can be seen in this study are more aimed at business leaders in applying technology to support and improve the quality of service by popularizing information technology. However, with the ease of service in a web system, the hotel also provides and convinces customers of the

No	Title, Author, Year	Background	Methodology	Result	Conclusion
		technological insecurity have an effect on customer pad in purchasing hotel tickets online.		information related to the security of personal data, and provides accurate information.	security provided to customers. As well as with the performance allocated accordingly can help in improving online ordering services and the right promotion strategy.
4.	Importance Performance Analysis (IPA) of bus service attributes: A case study in a developing country (Esmailpour,	The high level of public transport customers in Tehran, Iran. Bus public transportation service is a case study that aims to identify gaps in the performance of its attributes.	Improving public bus transportation using the Performance Analysis (IPA) method to be able to identify gaps in the performance of attributes to interests. By combining with the Exploratory Factor	The results state that in the Performance Analysis (IPA), Quadrant I has a performance score of 2.49 with the presence of 6 attributes in it, Quadrant II has a performance score of	From the results of the analysis, it is concluded that tractile agents need to pay attention to the needs of the comfort level by providing sufficient air circulation, the

No	Title, Author, Year	Background	Methodology	Result	Conclusion
	Aghabayk, Vajari, & Gruyter, 2020)		Analysis (EFA) method used to identify key components and Cluster Analysis (CA) which is used to view results that have been reduced by heterogeneity effects.	2.69 with 1 attribute in its quadrant, Quadrant III has a score performance of 3.81 with 1 attribute in its quadrant, and Quadrant IV has a performance score of 3.52 with 1 attribute in its quadrant. For the results, EEF explained that there are two components, namely convenience, reliability, comfort, and safety. Finally, for CA, it is classified as a sample that will be continued to cover the IPA.	condition of the buses that can be ensured to always be clean, and facilities for people with special needs. With it can help in increasing customer satisfaction with the use of public transportation.

No	Title, Author, Year	Background	Methodology	Result	Conclusion
5.	Analysis Of HNI.ID E-Commerce Service Quality on User Satisfaction Using E-Servqual (Megawati & Rubayati, 2020)	HNI.id is e-commerce engaged in halal and quality herbal products, but in its implementation, there are still problems found in the service system for customers. Ecommerce services HNI.id are still limited in certain circles because shopping in e-commerce HNI.id can only be done by customers who have a member ID number from the company	Data collection was carried out using questionnaires after previously conducting interviews with several consumers and observations on operational activities. Data processing using the electronic service quality (e-servqual) method, which is identified using TESQ values to determine how the quality of service, as well as using the customer satisfaction index (CSI) method	Based on validity and reliability tests, all statements are valid and reliable. In the calculation of e-servqual, it is known that the largest gap per item in the P17 statement (protected consumer personal data) is -0.07 and the lowest e-servqual value in the P5 statement (customers can leave e-commerce easily) is 0. Based on validity and reliability tests, all statements are valid and reliable. In the	Based on the calculation of e-servqual, it can be seen that statement P17 has the largest gap and P5 has the lowest e-servqual value. TESQ calculations show that the services provided today are "very satisfactory". The CSI calculation also shows that at this time, the customer is satisfied with the services provided. There are six variable

No	Title, Author, Year	Background	Methodology	Result	Conclusion
				calculation of e-servqual, it is known that the largest gap per item in statement P17 (personal data of consumers is protected) of -0.07, and the lowest e-servqual value in statement P5 (customers can leave e-commerce easily).	statements that still have the highest gaps so improvements are needed to improve the quality of service
6.	The impact of e-service quality and customer satisfaction on customer behavior in online	The study was conducted because researchers wanted to find out whether the quality of electronic services had an impact on customer satisfaction, customer trust, and customer	The research method was carried out using a questionnaire to 3555 online consumers in Indonesia, which will be used as structural modeling for a dimension to be	In this study, the results obtained were three dimensions of e-service quality, namely website design, security/privacy and fulfillment affecting the quality of e-service as a whole.	The conclusion of this study still requires improvement because this research is not able to be generalized because the research carried

No	Title, Author, Year	Background	Methodology	Result	Conclusion
	shopping (Rita, Oliveira, & Farisa, 2019)	behavior, building on the existing literature on the quality of electronic services in online shopping.	analyzed using the e-service Quality dimension.	With the results of the Website design hypothesis 0.077 effect size score, Security/privacy 0.057, and Fulfilment 0.329.	out analyzes the quality of online store e-services in general, not based on product segments sold in online stores. And this study examines the direct influence of variables without considering the potential effects of moderation between variables
7.	How live-streaming influences purchase intentions in	The increase in live-streaming is popular in China, and the increase in vendors selling in e-Commerce. Taobao 2018	Conducting surveys as a methodology in order to be able to measure models empirically, with variables related to	The results of this study began by testing the impact of IT affordability when shopping live-	From the research, it was produced that a large variable has an influence on buying interest, namely on

No	Title, Author, Year	Background	Methodology	Result	Conclusion
	social commerce: An IT affordance perspective (Suna, Shaoa, Lic, Guod, & Niea, 2019)	launched an online shopping scene that uses live-streaming features, and at the same time, sales increased to 100 billion yuan in 2018. Because of the ease of convenience, customers want to interact directly without waiting for a reply via chat.	visibility (VI), metavoicing (ME), immersion (IM), Social Presence (SP), Telepresence (TE), and Buying Interest (PUI). By analyzing using SPSS to customers Taobao.com, JD.com, Mogujie.com, and Sina Microblog	streaming. And from the resulting on the visibility variable is positively related to the result ($\beta = 0.20$, $p < 0.001$) and the presence with the result ($\beta = 0.21$, $p < 0.001$); variable Meta voicing is also positively related to immersion ($\beta = 0.20$, $p <0.001$) and presence ($\beta = 0.16$, $p <0.01$); and so is the affordability of shopping guides (immersion: = 0.26, $p < 0.001$; attendance: = 0.40, $p < 0.001$). When testing the hypothesis	the variable affordability of visibility, metavocing and shopping guides.

No	Title, Author, Year	Background	Methodology	Result	Conclusion
				results, it was found that R-squared intention with a result of 47%, variable affordability of visibility, affordability of Meta voicing, and affordability of shopping guides yielded 41%.	
8.	Measurement of e-service quality from user perceptions using the IPA-Kano integration model (Wahyuni,	The shift in consumer consumptive behavior from conventional to online shopping was triggered by the emergence of online transaction service providers with the C2C model. Consumer satisfaction is one of the	Data collection used a questionnaire method consisting of 28 service attributes from seven dimensions of e-servqual and filled out by 202 Respondents using a questionnaire. Data analysis using the Importance	Respondents were tested for validity and reliability which was then found that the results were valid and reliable. At the level of conformity between the level of satisfaction and the level of importance, the percentage does not	The degree of conformity between the level of importance and satisfaction there is still a gap because the percentage does not reach 100% as a result of the integration of the

No	Title, Author, Year	Background	Methodology	Result	Conclusion
	Gunawan, & Rahmawati, 2019)	things that service providers must pay attention to because if consumers are satisfied, they will return to using it in the future, and vice versa.	Performance Analysis (IPA) method, which is then integrated with the KANO method	reach 100%, which means that there is still a gap between the level of satisfaction and the level of importance felt by the user. In the IPA calculation, there are six attributes that are in quadrant I, seven attributes are in quadrant II, seven attributes are in quadrant III and eight quadrants are in quadrant IV. KANO method shows that six attributes are in the attractive category, eight attributes are in	IPA-KANO method; it can be seen that the service that must be improved is the compensation dimension because it has two attributes that are in the quadrant of "improvement priority". Meanwhile, when viewed in the "keep up the good work" quadrant, it can be seen that the privacy dimension is a dimension that the service must

No	Title, Author, Year	Background	Methodology	Result	Conclusion
				the performance category, nine attributes are in the indifferent category and four attributes are in the must-be category. Based on the integration of IPA and KANO, and judging from the dimensions of e-servqual, it can be seen that the service that must be improved is the compensation dimension because it has two attributes that are in the quadrant of "improvement priority". Meanwhile,	maintain because it has three service attributes that are in the quadrant.

No	Title, Author, Year	Background	Methodology	Result	Conclusion
				when viewed in the "keep up the good work" quadrant, it can be seen that the privacy dimension is a dimension that the service must maintain because it has three service attributes that are in the quadrant.	
9.	Analysis Of Online Service Quality (E-Servqual) Use Importance Performance Analysis Method on Bhinneka.com	Bhinneka.com is the first e-commerce site in Indonesia which was released in 1999 but was ranked seventh in a popular site in Indonesia. Bhinneka.com has complaints from consumers about the poor	Research is descriptive quantitative research. The sampling technique uses a purposive sampling technique with a total of 400 Respondents. The data analysis method uses descriptive analysis,	The results of the calculation of the average comparison between consumer expectations and service performance resulted in an average performance of 77.8% and an average	The overall level of Respondents' expectations of the quality-of-service Bhinneka.com was very good, as well as the level of performance received by the

No	Title, Author, Year	Background	Methodology	Result	Conclusion
	(Nabila, Ariyanti, & Sumrahadi, 2018)	quality of services provided by bhinneka.com. The number of complaints slightly illustrates that bhinneka.com still cannot satisfy its consumers, so there is a need for a thorough evaluation of service quality.	Customers Satisfaction Index (CSI), and Importance Performance Analysis (IPA) based on e-servqual dimensions.	expectation of 82.3%, it shows that overall, the average performance level of Bhinneka.com good. Based on the results of the CSI analysis, it can be seen that the average CSI value is 77.96%, which means that overall, the level of customer satisfaction Bhinneka.com in the satisfied category. Gap analysis was also carried out and showed that the average gap in performance and expectation levels was -	Respondents, which was concluded to be in a good category. The CSI calculation proves the level of customer satisfaction with the quality-of-service Bhinneka.com as a whole is relatively satisfactory. It is known that there are eight attributes that have the main priority to make improvements so that the quality-of-service

No	Title, Author, Year	Background	Methodology	Result	Conclusion
				0.81 or equivalent to 5.5% and it was concluded that overall, the performance of Bhinneka.com has not been able to meet the quality of service expected by customers. Analysis using IPA shows that there are eight attributes that are the top priority for quality improvement because they are in quadrant I, nine attributes fall into quadrant II, eleven attributes fall into quadrant III and five	Bhinneka.com improve.

No	Title, Author, Year	Background	Methodology	Result	Conclusion
				attributes fall into quadrant IV.	
10.	Importance-Performance Analysis (IPA) of Service Quality for Virtual Reality Golf Centre (Kwon & Chung, 2018)	Virtual reality golf center is one of the sports locations that are in great demand by modern people in filling their spare time. Virtual reality golf center services are considered important because of the competitiveness in the industry that can be said to be competitive. If the customer has a positive experience in one location, the company's image will be assessed as good so that there is a	Data collection used questionnaires filled out by 371 virtual reality golf center customers as Respondents. Data processing using SPSS for Windows and data analysis using the Importance Performance Analysis (IPA) method	The greatest average value of importance was the tangible dimension of 3.87 followed by the dimensions of guarantee (3.58), responsibility (3.43), empathy (3.41) and responsiveness (3.13). The greatest average value of satisfaction was the tangible dimension (3.47) followed by the dimensions of empathy (3.39), responsibility	The average value of the greatest importance is the tangible dimension, guarantee, responsibility, empathy, and responsiveness. The greatest average value of satisfaction is the tangible dimension, empathy, responsibility, responsiveness, and guarantee. In the IPA calculation, six items are obtained that are

No	Title, Author, Year	Background	Methodology	Result	Conclusion
		need to evaluate the importance and satisfaction of the quality of customer service of the virtual reality golf center.		(3.19), responsiveness (3.06) and guarantee (3.00). In the calculation of the IPA, six items were obtained in quadrant I, namely facilities that are comfortable providing the latest equipment, customized responses, understanding customer needs, interior atmosphere, and modern facilities. These six items show high importance and satisfaction, these items indicate that the current management and	in quadrant I, five items are in quadrant II, six items are in quadrant III, and three items are in quadrant IV.

No	Title, Author, Year	Background	Methodology	Result	Conclusion
				operations are adequate for the appropriate climate. Five items are in quadrant II, namely employee kindness, employee expertise, immediate problem-solving in case of problems, quickly Respondentsing to customer needs, and employee credibility. The six items are in quadrant III, namely the individual interests of customers, notification of service, clothing and appearance of employees, positive	

No	Title, Author, Year	Background	Methodology	Result	Conclusion
				attitude of employees, providing voluntary assistance, and promised time and service. And three items are in quadrant IV, which is to provide safe service, thinking in the context of customers, and voluntary responses	
11.	Analysis of Service Quality using Servqual Method and Importance Performance Analysis (IPA) in Population	The Tomohon City Population Office is one of the government agencies that serve the community in handling civil documents such as ID cards, birth certificates, death certificates, and so on.	The data collection method used a questionnaire consisting of 20 questions based on servqual dimensions and filled out by 92 qualified Respondents. Data analysis using	Reliability tests and validity tests were carried out and obtained the results that reliability tests and validity tests were carried out, and obtained the results that the questionnaire was	The results of the study showed that there were 20 questions based on servqual dimensions. The results of the IPA analysis found that three attributes were in quadrant A,

No	Title, Author, Year	Background	Methodology	Result	Conclusion
	Department, Tomohon City (YuvinaTileng, Herry, Wiranto, & Rudy, 2013)	The number of complaints received by the Tomohon City Population Office is interpreted as the need for evaluation to find out how the quality of services has been provided so far.	Importance Performance Analysis (IPA), whose queries are based on servqual dimensions	declared reliable and the Respondents' answers were declared valid. The results of the IPA calculation state that there are three attributes that are in quadrant A (employees who are given good services, employees serve the community quickly, employees have service ethics), five attributes are in quadrant B (employees provide timely service to the community, employees are always ready to serve the	five attributes were in quadrant B, seven attributes were in quadrant C, and the other five attributes were in quadrant D.

No	Title, Author, Year	Background	Methodology	Result	Conclusion
				community, employees are friendly and polite, employee uniform attributes are outdated and neat, adequate parking area), seven attributes are in quadrant C (employees provide accurate information about document processing, employees are easy to contact, employees ensure community data is safe, employees have leeway in Respondentsing to public requests as Service users,	

No	Title, Author, Year	Background	Methodology	Result	Conclusion
				employees provide the same services regardless of social status, clean office building environmental conditions, comfort of waiting rooms provided) and five quadrants are in quadrant D (not there are mistakes made by employees in the document processing process, if there are community complaints, employees immediately Respondents, employees have good knowledge of document	

No	Title, Author, Year	Background	Methodology	Result	Conclusion
				processing, employees understand the needs of the community as service users, indoor equipment is complete).	

Based on research that has been conducted previously by Komariah, Rimawan, Lestari, & Handayani (2021) said that the calculation of the GAP between perception and expectations and the Importance and Performance Analysis method is the top priority for customers in need or as users in a service. This is also emphasized in research that has a background in online hotel bookings explained by Jou and Day (2021) that knowing good service quality will get ease of service and security of service.

Previous research on live-streaming shopping by Suna, Shaoa, Lic, Guod, and Niea (2019) explained that this feature could increase buying interest from customers, but it does not rule out the possibility of many expectations or expectations desired by customers. Therefore, this research was answered from a study conducted in the same year by Wahyuni & Gunawan (2019), which used a quadrant of Importance Performance Analysis which explained the gap in customer expectations with the situation and explained how the level of satisfaction with it was.

From the studies that have been carried out by researchers, making this research can be compiled properly and differently from before, in determining how customer expectations of the live-streaming shopping feature service by visualizing it as has been done in previous research on different objects. Furthermore, from the understanding of previous research journals, it is known that the use of dimensions in the e-servqual methods became the basis for the formation of question attributes used to collect data from Respondents. This method is widely applied to analyze the quality of services in the service industry sector. The use of Importance Performance Analysis (IPA) method is also widely used to determine the position of each question attribute from each dimension so as to find out which attribute is the top priority for improving the service quality. In terms of research framework ,this study is described as follows:

CHAPTER III
RESEARCH METHOD

This chapter will explain the flow or steps of the research to be carried out, including explaining the research object under study, the type of data to be used, the research stages, the tools used during the research, data collection methods, data processing methods, to data analysis methods used in research.

3.1 Research Objective

The research conducted focused on analyzing the quality of live-streaming sales services on the Shopee, Tiktok, Tokopedia, and Lazada marketplaces based on consumer satisfaction. The dimensions of the e-servqual method are used for the preparation of question variables, and the method is used to find out the gap between consumer expectations and service performance. Then the Importance Performance Analysis (IPA) method is used to find out which variables of dimensions can be the top priority for improving live-streaming sales services in the marketplace. The subject of this study is a marketplace as an online interactive business forum used by the public for buying and selling transactions during the pandemic and after the pandemic, which can make it easier for customers to determine the best product with reviews directly on live-streaming.

3.2 Research Data Collection Methods

3.2.1 Customer Journey Maps

The data collection method for data supporting the design of Customer Journey Mapping (CJM) uses a CJM questionnaire whose statements are designed based on phase and key components. The questionnaire will be distributed using google form media and distributed through online platforms to reach more Respondents. Respondents to the CJM questionnaire Respondents chose several answer choices that suited them and gave an open statement. With detailed questions as follows:

Table 3. 1 Design Questionnaire of CJM

No	Phase	Key Component	Question		Option
1	Discover	Verbatim (Think)	What do you think about this phase?	Motivation	Want to buy the desired item for a gift
				Motivation	Want to find a store that matches the desired one
				Searches for App or websites	Find live-streaming shopping time at a store that sells products
				Searches for App or websites	Want to get the product that matches the review on a store's live-streaming shopping
		Customer Actions	Before you buy the items you want through live-streaming shopping, what are the actions you usually do?	Searches for App or websites	Looking at social media for the type of goods you are going to buy, is it doing live-streaming shopping?
				Searches for App or websites	Visit the website or marketplace application you are going to

No	Phase	Key Component	Question		Option
				Motivation	Search for product keywords in the marketplace
				Motivation	See the top sellers for the product or store you are going to
		Pain Points	What are some doubts or doubts that you usually feel before buying goods on the use of live-streaming shopping?	Motivation	Where to shop to do live-streaming shopping that is only in certain marketplaces
				Searches for App or websites	It's hard to find a brand/store that has a good image and do live-streaming shopping
				Searches for App or websites	Lack of live-streaming shopping video quality
				Motivation	Admins who live stream shopping are less clear in product explanations or reviews

No	Phase	Key Component	Question		Option
		Goals	What are your goals for this phase?	Motivation	Getting goods according to the purpose of buying them
				Motivation	Get the goods you want with the many promos offered
				Searches for App or websites	Find items that match what you want in the future from the quality and results of reviews on the appropriate live-streaming shopping
				Searches for App or websites	Look for brands/stores that have high quality live-streaming shopping videos.
		Touchpoint	What media do you usually use in this phase?	Motivation and Searches for Apps or websites	Shopee
					TikTok
					Tokopedia
					Loop
			What feelings or emotions do	Motivation and Searches	Excited
					Neutral
					Unhappy

No	Phase	Key Component	Question		Option
			you feel in this phase?	for Apps or websites	
		Ideas/Opportunities	What are your right inputs or expectations for this phase based on how you feel or have never felt?	Searches for App or websites	Added reminder feature that can be shared with smartphone calendar
				Searches for App or websites	Categorizing of stores that are doing live-streaming shopping
				Motivation	There is an explanation of the rating in the live shopping experience before continuing to enter the live stream
				Motivation	Can provide explanations made by influencers (affiliates) during live-streaming shopping
2	Consider	Verbatim (Think)	What usually makes you	Watch Live-	Price offers, existing

No	Phase	Key Component	Question		Option
			consider/do in consideration of buying goods during live-streaming shopping on Marketplace?	streaming Shopping	promotions, and postage vouchers
				Watch Live-streaming Shopping	Quality and reviews of goods on live stream videos shown by live hosts
				Evaluates Products	The product brand has a good image
				Evaluates Products	Compare the price of a brand's live-streaming shopping with non-live streams on other Marketplaces
		Customer Actions	In this consideration phase, how do you usually determine which live stream in the marketplace you are going to buy goods?	Watch Live-streaming Shopping	Visit the brand's social media accounts to find out about the promos offered
				Watch Live-streaming Shopping	Browse the entire marketplace that exists of the brand and is doing live-streaming shopping

No	Phase	Key Component	Question		Option
				Evaluates Products	Questioning the live host of the product you are intended to buy and requesting a review directly
				Evaluates Products	Compare prices, discounts, and postage vouchers on each brand's shopping live stream in each marketplace
		Pain Points	What are some doubts or doubts that you usually feel before buying goods on the use of live-streaming shopping?	Evaluates Products	The products offered are not as varied as conventional online sellers
				Evaluates Products	Products that do not match the image on the storefront at the time of review by the live host.
				Watch Live-streaming Shopping	Some live-streaming shopping pages have unexpected and ordinary promos, the same

No	Phase	Key Component	Question		Option
					as conventional online sales
				Watch Live-streaming Shopping	The live host did not answer in detail when I asked about the review of the product, I wanted to buy
		Goals	What are your goals for this phase?	Watch Live-streaming Shopping	Host Live-streaming shopping on Marketplace that has attractive discount vouchers every session
				Watch Live-streaming Shopping	A live host who can explain my confusion about the product I'm going to buy
				Evaluates Products	The products offered have the appropriate quality from the results of the reviews
				Evaluates Products	Host Live-streaming shopping that

No	Phase	Key Component	Question		Option
					offers the cheapest product prices from comparison results with other Live-streaming shopping marketplaces.
		Touchpoint	In determining where to live-stream shopping in a marketplace where you interact and shop, what marketplaces do you usually visit?	Watch Live-streaming Shopping and Evaluates Products	Shopee
					TikTok
					Tokopedia
					Loop
			What emotions do you feel in this phase	Watch Live-streaming Shopping and Evaluates Products	Excited
					Neutral
					Unhappy
		Ideas/Opportunities	What are your right inputs or	Watch Live-	Conduct periodic promotions with a time that can be

No	Phase	Key Component	Question		Option
			expectations for this phase based on how you feel or have never felt?	streaming Shopping	reached by customers on a daily basis.
				Watch Live-streaming Shopping	Variations in sales or category usage in each live shopping session
				Evaluates Products	Placing product advertisements with benefits and functions on social media or marketplace banners
				Evaluates Products	The host of live-streaming shopping is ensured to have a stable signal so that the video quality is good and able to explain the product clearly.
3	Purchase	Verbatim (Think)	What do you usually think about during this phase?	Pay	Will the purchase process go smoothly?
					Does it take a long time to make a payment?

No	Phase	Key Component	Question		Option
					Can the voucher code be used at the time of payment?
					Are there many payment methods to choose from?
		Customer Action	What are you doing in this phase?		Enter the voucher code for discounted and free shipping
					Checkout goods and make payments
					Make sure the goods have paid off and get the order number
		Pain Points	What are the obstacles that exist in this process?		I find it difficult to make payments using virtual codes or others
					Payment options that do not vary
					When the application checkout process encounters an error and cannot be repeated

No	Phase	Key Component	Question		Option
		Goals	What are your goals in this phase?		Complete transactions and payments quickly and precisely
					Get free shipping
					Get and can use discount vouchers before payment
		Touchpoint	What do you usually make purchases of goods through?		Bank Transfer
					E-money
			What feelings or emotions do you feel in this phase?		Excited
					Neutral
					Unhappy
		Ideas / Opportunity	What are your right inputs or expectations for this phase based on how you feel?		Providing varied payment types with clear procedures on each payment method
					Perform system maintenance so that the checkout process is fast and smooth

No	Phase	Key Component	Question		Option
					Gives enough time for the limit in payment
					Provide a recapitulation of the goods to be paid as well as the details of the voucher used
4	Wait For Delivery	Verbatim (Think)	What do you think of this process?	Product Delivery Checking	Whether the receipt number is available at the time of the delivery process
					Whether the goods delivered will arrive accordingly at the time that has been informed
					Whether the delivery process will last a long time
					Whether the goods I received later were in line with my expectations

No	Phase	Key Component	Question		Option
		Customers Action	In this process, what do you usually do?		Check the receipt number to find out the progress of my delivery of goods periodically
					Ask the live host or admin if there are problems with goods that have not been sent
		Pain Points	What are the obstacles you usually feel in this phase?		The feeling that the goods I ordered will be late to arrive
					Absence of updates related to the delivery of goods on the system
					Feelings related to the safety of goods in shipping
					Feelings for the completeness of the ordered goods during the delivery process
		Goals			Knowing the exact position of

No	Phase	Key Component	Question		Option
			What are your goals in this phase?		the whereabouts of the item I ordered
					Delivery until receipt of goods is carried out according to the informed time
		Touchpoint	Usually, where do you check the receipt number?		Through the marketplace (Website or Application)
					Website trace and tracking from logistics itself
			What feelings or emotions do you feel in this phase?		Excited
					Neutral
					Unhappy
		Ideas/Opportunity	What are your right inputs or expectations for this phase based on how you feel?		Providing information on numbers that can be contacted, such as couriers or warehouses storing goods
					Make regular updates on the presence of goods

No	Phase	Key Component	Question		Option
5	Receive and Wear/Use the Product	Verbatim (Think)	What do you usually think about in this phase?	Receives Products	"The item I ordered turned out to arrive quickly and flawlessly."
					"The number of items that came according to my order."
					"The goods received are not in accordance with the ordered."
					"The goods I ordered were in line with my expectations."
					"Goods can function properly according to their function."
		Customer Action	What are you doing in this phase?		Receiving packages and checking the packaging in what the circumstances are
					Documenting during the process

No	Phase	Key Component	Question		Option
					of opening the ordered item
					Trying the purchased item to see whether it fits or works well
					Provide a review if the item matches the one ordered to the Marketplace where the order was ordered
					Make a return or refund if the goods do not match the order
		Pain Point	What are the obstacles you usually feel during this phase?		Items do not match (function, physical, etc.) my expectations
					Errors in the size, color, and type of goods shipped
					Damage to the delivered goods
		Goals	What are your goals in this phase?		Getting the goods according to my order

No	Phase	Key Component	Question		Option
					My stuff arrived without errors and defects
		Touchpoint	Usually, through what media do you find out that your order has arrived?		Email
					Notifications through the marketplace
					WhatsApp
					By courier phone
			What feelings or emotions do you feel in this phase?		Excited
					Neutral
					Unhappy
		Ideas / Opportunities	What are your right inputs or expectations for this phase based on how you feel?		Extra safe packaging so that goods are protected
					Return of goods to be replaced according to the order can be done quickly, easily, and safely
					If something goes wrong, the process of returning goods and funds is fast and safe

3.2.2 E-servqual

The data collection method carried out is by distributing questionnaires arranged based on the dimensions of the e-servqual, which produces items of research questions. The questionnaire compiled will be distributed using social media such as chat applications WhatsApp and Line, as well as other social media such as Instagram, Twitter, and so on. The questionnaire that was distributed using social media was in the form of a google forms link. Each study variable was measured using the Likert scale. Respondents will be faced with a question that is then asked to answer with the following options.

Table 3. 2 Research Likert Scale

No	The scale of Customer Interests	Marketplace Live-streaming shopping Performance Scale
1	Very Unimportant	Very Unkind
2	Not Important	Bad
3	Important Enough	Good Enough
4	Important	Good
5	Very Important	Excellent

In the preparation of the research questionnaire, there are research attributes that are arranged based on the dimensions of the e-Servqual. The research questionnaire to be carried out contains the following research variables and attributes.

1. Efficiency: speed and ease of accessing the site
2. System availability: all technical functions of the site that run correctly
3. Fulfillment: how the site meets expectations or expectations in all sorts of transactions, delivery, and availability of goods or services
4. Privacy: provides security guarantees for customer information or personal data
5. Responsiveness: how the site Respondents quickly
6. Compensation: how management compensates customers in case of problems

7. Contact: availability of customer service on the site by telephone or representative in an area

According to Parasuraman, Zeithaml, and Malhotra (2005), in their study, e-servqual contains 33 attributes of 7 dimensions, the design of the research questionnaire is depicted in the following table:

Table 3. 3 Design Questionnaire of E-Servqual

No	Dimensions of E-Servqual	Research attributes	
1	**Efficiency**	1	The live-streaming shopping feature on the marketplace makes it easy for me to find what I need
		2	The live-streaming shopping feature can make it easier to explore live streams according to their categories
		3	Live-streaming shopping on the marketplace allows you to complete transactions quickly
		4	Accessing live-streaming shopping information on the marketplace is regulated according to the direction
		5	Live-streaming shopping on the marketplace contains pages and good video quality
		6	Live-streaming shopping on the marketplace is easy to use, and understand how it looks
		7	Live-streaming shopping on the marketplace is easy to access quickly and appropriately
		8	Live-streaming shopping on a well-organized marketplace

No	Dimensions of E-Servqual	Research attributes	
2	**System Availability**	9	Live-streaming shopping on the marketplace makes transactions according to the choice of method
		10	Live-streaming shopping on marketplaces launched and accessed in many marketplace options
		11	Live-streaming shopping on the marketplace provides a variety of purchase services with its delivery methods as well
		12	Live-streaming shopping on the marketplace is not constrained by buffers or freezes after commenting or refreshing the live-streaming page
3	**Fulfillment**	13	The admin of the host of live-streaming shopping on the marketplace provides information on the estimated time the goods will be received
		14	Live-streaming shopping on the marketplace provides regular information along with couriers who can be contacted
		15	Live-streaming shopping on the marketplace quickly sends me what I've ordered
		16	Live-streaming shopping on the marketplace sends goods that match what I ordered
		17	The stock of goods as described and informed by the live host or storefront of

No	Dimensions of E-Servqual	Research attributes	
			live-streaming shopping products on the marketplace
		18	Live hosts honestly explain their offerings when live-streaming shopping on the marketplace
		19	Live hosts promise accurate time in product delivery at the time of live-streaming shopping in the marketplace
4	**Privacy**	20	Live-streaming shopping in the marketplace protects customer shopping behavior and customer shopping history
		21	Live-streaming shopping in the marketplace does not share my personal data information (address, phone number, receipt number, and others) with other sites
		22	Live-streaming shopping in the marketplace protects information about credit cards, accounts, and more
5	**Responsiveness**	23	Live-streaming shopping on the marketplace gives me a clear and convenient option or explanation for the procedure in returning goods
		24	When shopping on live-streaming shopping in the marketplace can handle product returns well
		25	Live-streaming shopping in the marketplace offers a guarantee and guarantee for its products
		26	Live-streaming shopping in the marketplace helps in answering

No	Dimensions of E-Servqual	Research attributes	
			questions related to what to do if my transaction is not processed
		27	Live-streaming shopping in the marketplace addresses issues immediately
6	**Compensation**	28	Live-streaming shopping in the marketplace compensates for the problems caused
		29	Live-streaming shopping in the marketplace provides compensation if the goods I ordered did not arrive on time informed
		30	When shopping on live-streaming shopping in the marketplace, the marketplace refunds the transaction fee for goods that cannot be sent
7	**Contact**	31	Live-streaming shopping in the marketplace provides compensation if the goods I ordered did not arrive on time
		32	When we shop on live-streaming shopping in marketplaces, customers and host are involved in live and deep interactive session that includes question and answers.
		33	When shopping live-streaming shopping in the marketplace, there is a live host and customer service admin assistance that can answer existing problems or obstacles immediately

3.2.3 Correlation Between CJM and E-Servqual

In this study, it is necessary to have a relationship between phase and key components with the dimensions in e-Servqual to be able to provide explanations related to the results of improvements or assessments in the service that has been running with a questionnaire to ask customer expectations of the service and the assessment that the customer provides whether it can be in accordance with what the customer wants. The following is a table of justifications related to the relationship between CJM and E-Servqual:

Table 3. 4 Correlation of CJM and E-Servqual

No	Phase	Key Component	Dimensions of E-Servqual	Question No	Attribute research	Justification
1	Discover	Verbatim (Think)	Efficiency	6	Live-streaming shopping on the marketplace is easy to use and understand how it looks	The relationship between easy-to-understand interfaces according to customers When searching will make customers more efficient in shopping
				8	Live-streaming shopping on a well-organized marketplace	Live-streaming shopping Marketplace organizes for more efficient product search

No	Phase	Key Component	Dimensions of E-Servqual	Question No	Attribute research	Justification
		Customer Actions		1	The live-streaming shopping feature on the marketplace makes it easy for me to find what I need	Customers who are looking for a product feel the ease of finding the intended product
		Pain Points	Efficiency	4	Information on the live-streaming shopping marketplace according to what is provided or the products offered	The customer gets information that corRespondentss to his category and the products provided according to his drawings or descriptors.
		Goals	Efficiency	7	Live-streaming shopping on the marketplace is easy to access quickly and appropriately	Live-streaming shopping Marketplace makes it easy for customers to start from access efficiently from watching to paying for products.
		Touchpoint	Efficiency	10	Live-streaming shopping on	Live-streaming shopping can be owned by many

No	Phase	Key Component	Dimensions of E-Servqual	Question No	Attribute research	Justification
					marketplaces launched and accessed in many marketplace options	marketplace options to make it easier for customers to interact directly with the live host.
		Ideas/Opportunities	Efficiency	2	The live-streaming shopping feature can make it easier to explore live streams according to their categories	Customers feel the existence of product categories when watching live-streaming shopping to make it more efficient in search.
2	Consider	Verbatim (Think)	System Availability	12	Live-streaming shopping on the marketplace is not constrained by buffers or freezes after commenting or refreshing the live-streaming page	Customers consider whether they will be in the purchase or not when they find a choice and try to confirm the choice, but there are buffer constraints on the name of the live stream in the marketplace.

No	Phase	Key Component	Dimensions of E-Servqual	Question No	Attribute research	Justification
		Customer Actions	System Availability	18	Live hosts honestly explain their offerings when live-streaming shopping on the marketplace	The relationship between the live host and the review system directly and in response can be honest in the offer or actually not appropriate
		Pain Points	Efficiency	5	Live-streaming shopping on the marketplace contains pages and good video quality	In using live-streaming shopping will make customers indecisive and feel less efficient because the video quality that can change to be less good
		Touchpoint	Contact	33	When shopping on live-streaming shopping in the marketplace, there is a live host and customer service admin assistance that can	Customer interaction in contacting the marketplace if there are more detailed questions

No	Phase	Key Component	Dimensions of E-Servqual	Question No	Attribute research	Justification
					answer existing problems or obstacles immediately	
		Ideas/Opportunities	Fulfillment	17	Stock of goods as described and informed by the live host or storefront of live-streaming shopping products on the marketplace	Customers have expectations that the fulfillment of needs is to be carried out or clearly informed by the live shopping host and in the marketplace.
3	Purchase	Verbatim (Think)	Efficiency	3	Live-streaming shopping on the marketplace allows you to complete transactions quickly	Customers think whether live-streaming shopping can be able to be completed efficiently
		Customer Action	System Availability	9	Live-streaming shopping on the marketplace makes	Customers can make payments through the marketplace with a wide choice of payment

No	Phase	Key Component	Dimensions of E-Servqual	Question No	Attribute research	Justification
					transactions according to the choice of method	methods. The availability of payment systems is not only an option through banks.
		Pain Points	Privacy	22	Live-streaming shopping in the marketplace protects information about credit cards, accounts and more	In payment and receipt of confirmations from the marketplace, it is able to provide protection for personal information, especially payment transaction numbers and accounts used.
			Responsiveness	26	Live-streaming shopping in the marketplace helps in answering questions related to what to do if my transaction is not processed	The response given by the live host or admin is very necessary immediately because when you are trying to make a transaction, you can't or are constrained.

No	Phase	Key Component	Dimensions of E-Servqual	Question No	Attribute research	Justification
		Goals	Responsiveness	25	Live-streaming shopping in the marketplace offers a guarantee and guarantee for its products	On the payment that has been completed on the live-streaming shopping, also explain related information about warranty and other guarantees
		Touchpoint	System Availability	11	Live-streaming shopping on the marketplace provides a variety of purchase services with its delivery methods as well	System availability for the choice of previous payment methods.
		Ideas / Opportunity	Compensation	30	When shopping on live-streaming shopping in the marketplace, the marketplace refunds	Refund of costs that are compensated for the possibility of goods not being available or delivery that is not on time.

No	Phase	Key Component	Dimensions of E-Servqual	Question No	Attribute research	Justification
					the transaction fee for goods that cannot be sent	
4	Wait For Delivery	Verbatim (Think)	Fulfillment	15	Live-streaming shopping on the marketplace quickly sends me what I've ordered	Fast delivery after the ordered goods is in accordance with the fulfillment of information at the time of live-streaming shopping, and that has been textually informed in the order.
		Customers Action	Fulfillment	13	The admin of the host of live-streaming shopping on the marketplace provides information on the estimated time the goods will be received	Customers can get information on the estimated time received and check the location of the goods

No	Phase	Key Component	Dimensions of E-Servqual	Question No	Attribute research	Justification
		Pain Points	Responsiveness	27	Live-streaming shopping hosts in the marketplace provide information on addressing issues immediately	Obstacles to delivery, for example, delays in the absence of updates, can be given an explanation or response from the marketplace or courier
		Goals	Fulfillment	19	Live hosts promise accurate time in product delivery at the time of live-streaming shopping in the marketplace	Delivery can be made according to the estimated time that has been informed by the host of the live-streaming shopping.
		Touchpoint	Fulfillment	16	Live-streaming shopping on the marketplace When sending goods provides tracking information options	Customers can see direct delivery location updates through several trace and tracking system options.

No	Phase	Key Component	Dimensions of E-Servqual	Question No	Attribute research	Justification
		Ideas/Opportunity	Fulfillment	14	Live-streaming shopping on the marketplace provides regular information along with couriers who can be contacted	Customers can interact directly with the courier or be given updated information about the location of shopping items every day.
			Contact	33	When shopping on live-streaming shopping in the marketplace, there is a live host and customer service admin assistance that can answer existing problems or obstacles immediately	The marketplace or expedition can help with questions about delivery immediately if you want to take the goods directly to warehouse and others.
5	Receive and Wear/Use	Verbatim (Think)	Compensation	28	Live-streaming shopping in the marketplace	Thinking at the time of receipt of goods that are not in accordance with

No	Phase	Key Component	Dimensions of E-Servqual	Question No	Attribute research	Justification
	the Product				compensates for the problems caused	whether there is compensation provided by the marketplace.
		Customer Action	Contact	32	When we shop on live-streaming shopping in marketplaces, customers and the host or the admin of marketplaces perform interactive and deep question and answer	Answering the problem of the completeness of the goods received by providing a video of the receipt of the goods as evidence.
		Pain Point	Privacy	21	Live-streaming shopping in the marketplace does not share my personal data information (address, phone number, receipt number, and others) with other sites	Gain privacy security at the time the package is well received by providing information that the expedition thinks are sufficient.

No	Phase	Key Component	Dimensions of E-Servqual	Question No	Attribute research	Justification
		Goals	Responsiveness	24	When shopping on live-streaming shopping in the marketplace can handle product returns well	When there is a problem with the package that is sent and Respondents properly and assisted in returning the package or product in accordance with a clear procedure
			Compensation	29	Live-streaming shopping in the marketplace provides compensation if the goods I ordered did not arrive on time, informed	Compensation if the goods are not dated as informed by the live host and listed textually. Compensation according to the policies of the stores in their respective marketplaces
			Contact	31	When shopping on live-streaming shopping in the marketplace will inform the live host,	Can get store contact person information informed by the live host when there is a lack or

No	Phase	Key Component	Dimensions of E-Servqual	Question No	Attribute research	Justification
					which is continued to the customer service to contact if there are problems	incompatibility of goods arriving
		Touchpoint	Responsiveness	23	Live-streaming shopping on the marketplace gives me a clear and convenient option or explanation for the procedure in returning goods	Knowing the information on the arrival of goods and responsive return procedures are carried out by the store's policy in the marketplace.
		Ideas / Opportunities	Privacy	20	Live-streaming shopping in the marketplace protects customer shopping behavior and customer shopping history	Providing privacy to the shopping history of others by closing your full name and phone number when leaving reviews and others.

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3.3 Type Data Collection

The type of data used in this study is primary data. Primary data is research data taken directly from the source or research subject can be in the form of direct interviews with individuals or groups. It can also be in the form of the results of direct observation of researchers in the field. The primary data in this study is data taken directly using questionnaires to Respondents.

3.4 Population and Sample

1. Population

   According to Sugiono, 2012 Population is a group of objects or subjects that have certain qualities and characteristics. In this study, the research population was the people of Yogyakarta who met the criteria of the predetermined research Respondents.

2. Sample

   The sample is part of certain characteristics that the population has. In determining the sample in this study, because the population is known quantitatively, it will use the formula from Lemeshow, with the following calculations:

$$n = \frac{z^2{}_{1-\frac{\alpha}{2}} \times P(1-P) \times N}{d^2(N-1) + z^2{}_{1-\frac{\alpha}{2}} \times P(1-P)}$$

$$n = \frac{z^2{}_{1-\frac{\alpha}{2}} \times P(1-P)}{d^2}$$

With a caption:

Z = Confidence level (95% or sig. 0.05) then the table Z value is 1.96

P = Maximum proportion of estimates (0.05)

d = Sampling error (10% = 0. 1)

The selection of the Lemeshow formula was carried out by considering the large population of Live-streaming Shopping users, time constraints,

and the limitations of mobilization at this time in retrieving data. The use of sampling errors of 10% is due to the large population with the presence of existing errors.

3.5 Research Flow

The following is the flow of research conducted in this study:

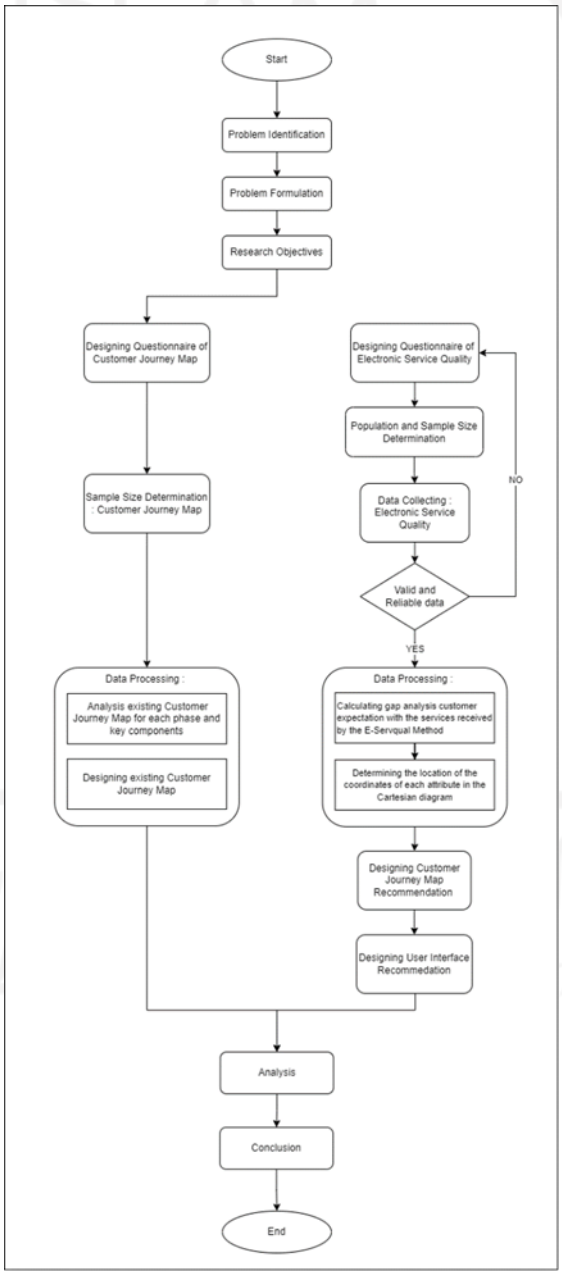


Figure 3. 1 Research Flowchart

Based on the picture above, the following is an explanation of the research flow:

1. Problem Formulation

   After identifying the problems that occur and understanding the direction of the research, the next step is to determine the formulation of the problem based on the problem obtained previously as the object of research. In this study, three points of problem formulation will be obtained that will be discussed.

2. Research Objectives

   The purpose of the study, as well as the limitations of the problem, are designed so that the research does not deviate from its intended purpose and has a definite goal direction. This study has four points of objectives of the research carried out and has some limitations of the problem.

3. Literature Review

   The literature review is carried out to strengthen the analysis through references to previous research and other literature that has a relationship with the research carried out.

5. Questionnaire Preparation

   The questionnaire was arranged for two different purposes; distributing the first questionnaire to find out customer expectations for live-streaming shopping with key components that can design Customer journey mapping, and the distribution of questionnaires based on the dimensions of e-servqual which will produce the attributes of research questions that will be disseminated to research Respondents.

6. Data Collection

   Data collection uses questionnaires that have been previously compiled and distributed to Respondents. Respondents in this study are people domiciled in Yogyakarta who has made transactions through the Shopee, Tiktok, Tokopedia, or Lazada marketplaces for a minimum of 2 shopping criteria through live-streaming shopping.

7. Validity Test and Data Reliability Test

Before the data that has been collected is processed using gap analysis and Importance Performance Analysis, a validity test is carried out to measure the validity or not of a questionnaire. If there is an invalid question, then the question will be dropped and not used, then the remaining questions will be retested for validity.

After the validity test is carried out, the results of the questionnaire then go through a reliability test. Reliability tests are carried out to determine the level of consistency of a questionnaire so that the questionnaire can be trusted to measure research variables. Questionnaires can be said to be reliable or reliable if Respondents' answers to questions are consistent over time. If there is unreliable data, then the data will be dropped and will not be used in the subsequent data processing. Reliability tests are carried out using SPSS software.

8. Data Processing

   Data processing is carried out using the gap analysis and Importance Performance Analysis methods. Gap analysis is used to determine the gap or difference between consumer expectations or expectations and service performance felt by consumers, while Importance Performance Analysis will result in a location coordinate of each attribute in a cartesian diagram.

9. Discussion of Analysis

   The analysis discussion contains all the data that has been collected and then processed until it is ready for analysis.

10. Conclusions and Suggestions

    The last stage is to provide conclusions that contain answers to predetermined research objectives and also suggestions containing proposed improvements to the company in improving the quality of its services through providing interface recommendations for Customer Journey Mapping and the interface of live-streaming shopping features as well as further research from research that has been carried out.

CHAPTER IV
DATA COLLECTING AND PROCESSING

Chapter IV of Data Collection and Processing contains the process of collecting and processing data during research. The data is collected using an online questionnaire whose results will then be processed using the Customer Journey Maps method, Electronic Service Quality (e-servqual) and Importance Performance Analysis (IPA). The results of data processing will be interfaced and become a reference in the preparation of Chapter V, namely discussion.

4.1 Customer Journey Mapping

4.1.1 Characteristics of CJM Respondents

Based on the distribution of questionnaires to 20 respondents from CJM, the research respondents were dominated by 74% female respondents and 26% male respondents. For more details, depicted the graph in Figure 4.1 below.

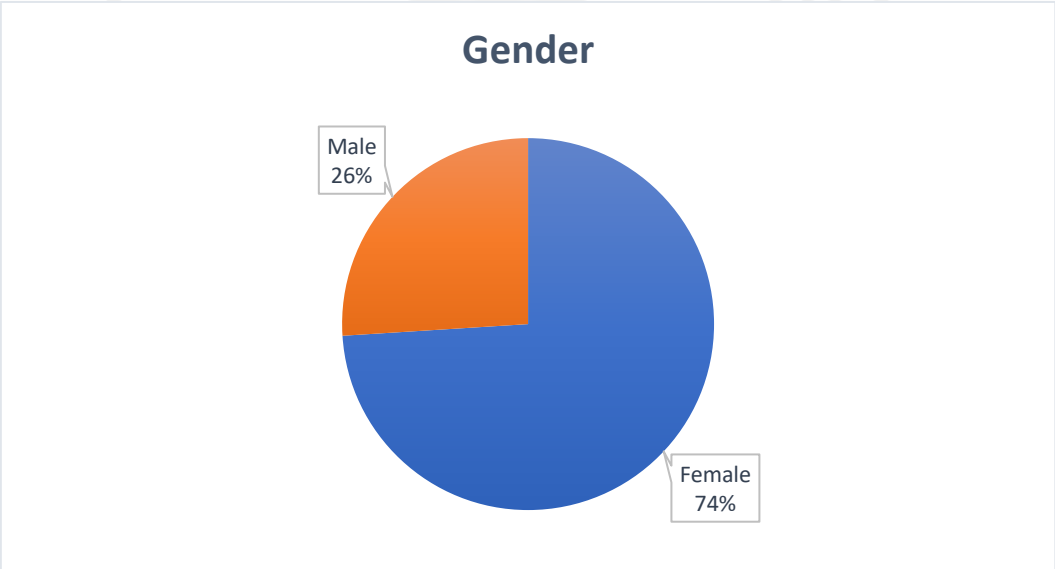


Figure 4. 1 Graph of Respondents by Gender

Meanwhile, when viewed by age, 71% of respondents were in the age range of 21-25 years. Then followed by the age range 15 - 20 years, as many as 18% of respondents; the age range 26-30 years, as many as 7% of respondents; age> 30 years, as many as 3% of respondents; and the age range <15 years as many as 1% respondents. For more details, depicted the graph in Figure 4.8 below.

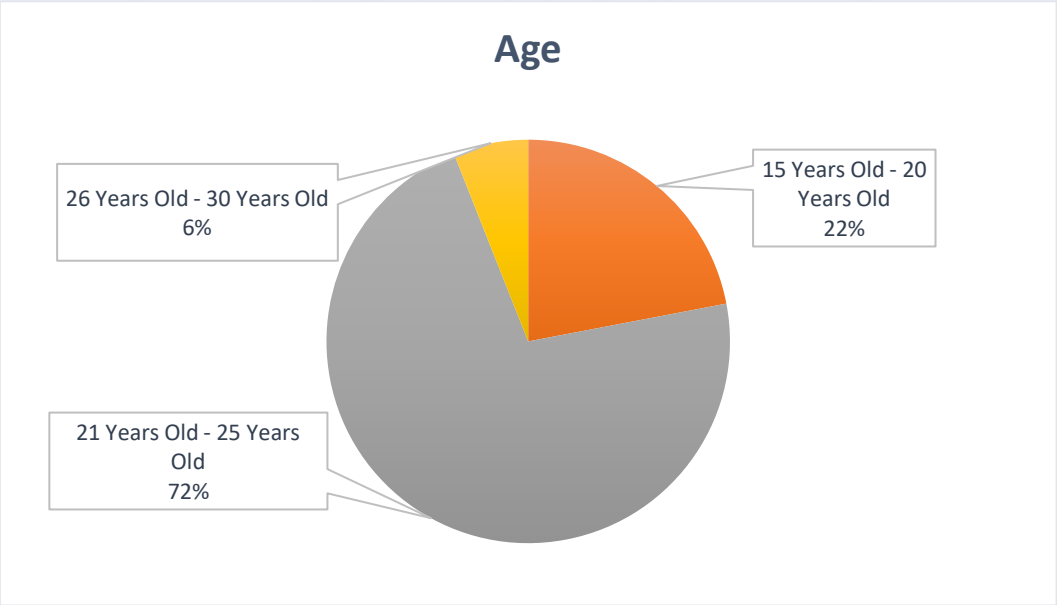


Figure 4. 2 Graph of Respondents by Age

Research respondents are spread over 37 provinces in Indonesia. Respondents domiciled in the Special Region of Yogyakarta dominate as respondents with a percentage of 60% respondents. Then followed by East Kalimantan with 16% of respondents, DKI Jakarta Province with 12%, then West Java with 4%, and West Sumatra and South Sulawesi Province with 4% of respondents. For more details, depicted the graph in Figure 4.3 below:

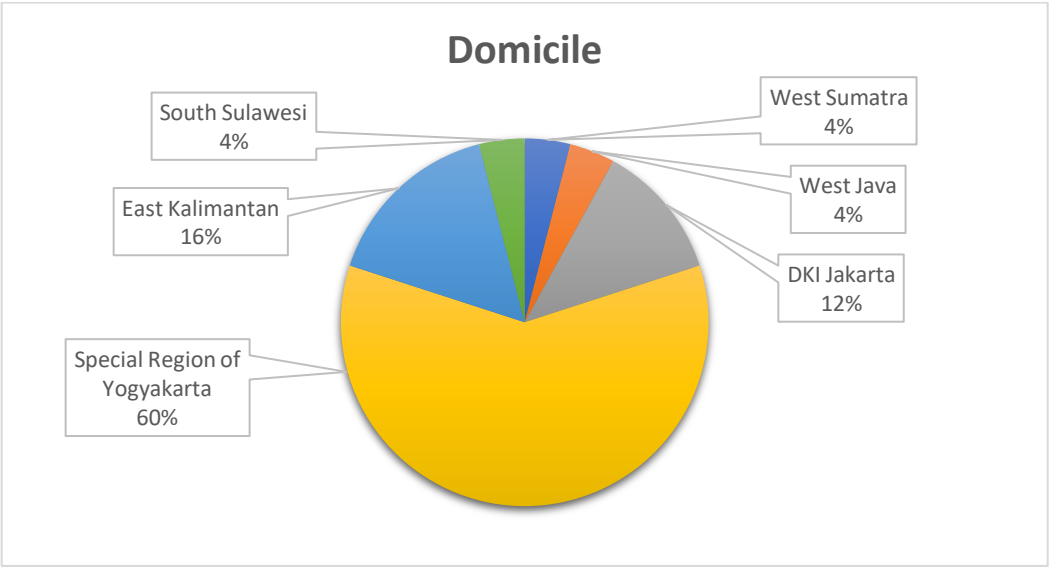


Figure 4. 3 Graph of Respondents by Domicile

The largest percentage of research respondents were students, as many as 64% of respondents. Then followed by respondents who are private employees, as much as 16% of respondents. Then followed by students at 8%, respondents who are housewives with a percentage of 6% respondents, and the remaining 6% are entrepreneurs. For more details, depicted the graph in Figure 4.4 below:

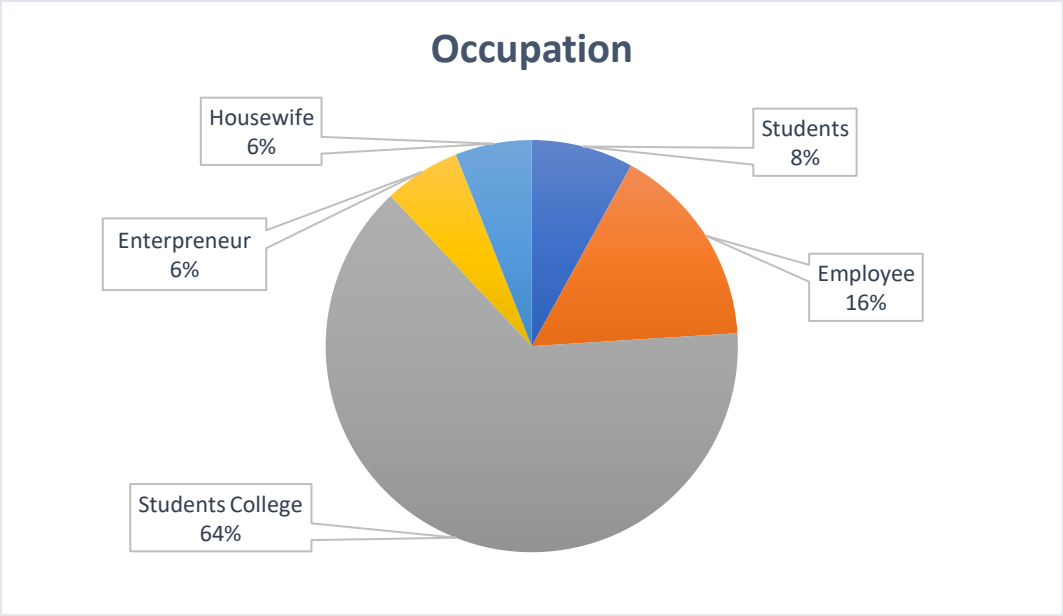


Figure 4. 4 Graph of Respondents by Occupation

When viewed based on how often respondents shop during live-streaming in the marketplace, the majority of respondents, namely 70% of respondents, have shopped 2 - 4 times during live-streaming in the marketplace, then respondents who shopped during live-streaming in the marketplace were 1 time 8% ordered and 5 - 7 times each of 16% respondents, and another 6% have shopped during live-streaming in the marketplace more than 7 times. For more details, illustrated in the graph in Figure 4.5 below:

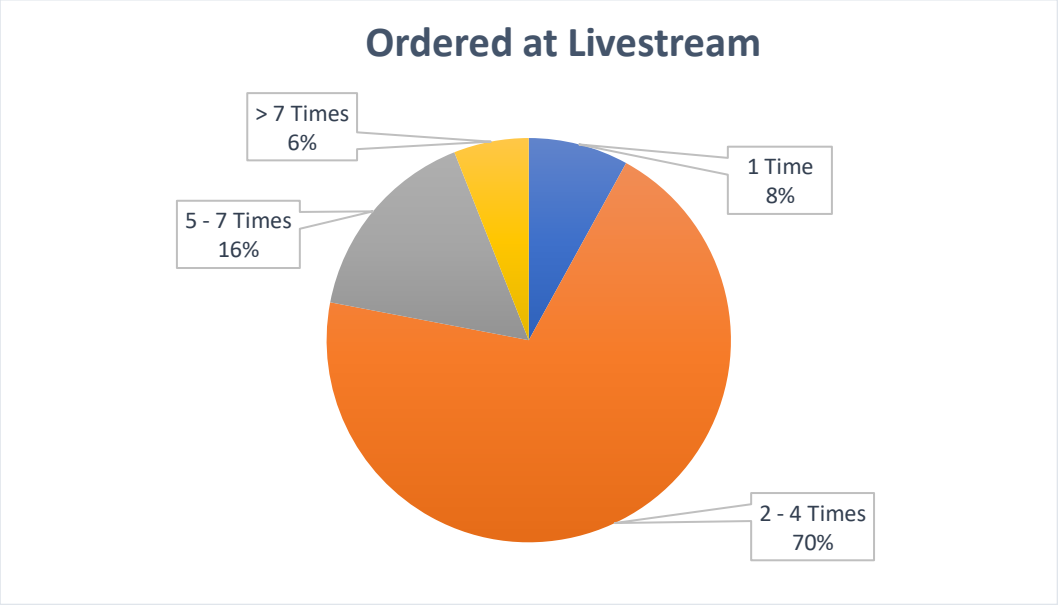


Figure 4. 5 Graph of Respondents by ordered on livestream

Based on the period of shopping using the shopping feature during live-streaming in the marketplace, the majority of respondents, namely 62% of respondents, shopped using the shopping feature during live-streaming in the marketplace for less than 1 year, while 38% of other respondents shopped using the shopping feature during live-streaming at the marketplace. Marketplace for 2-3 years. For more details, depicted the graph in Figure 4.6 below:

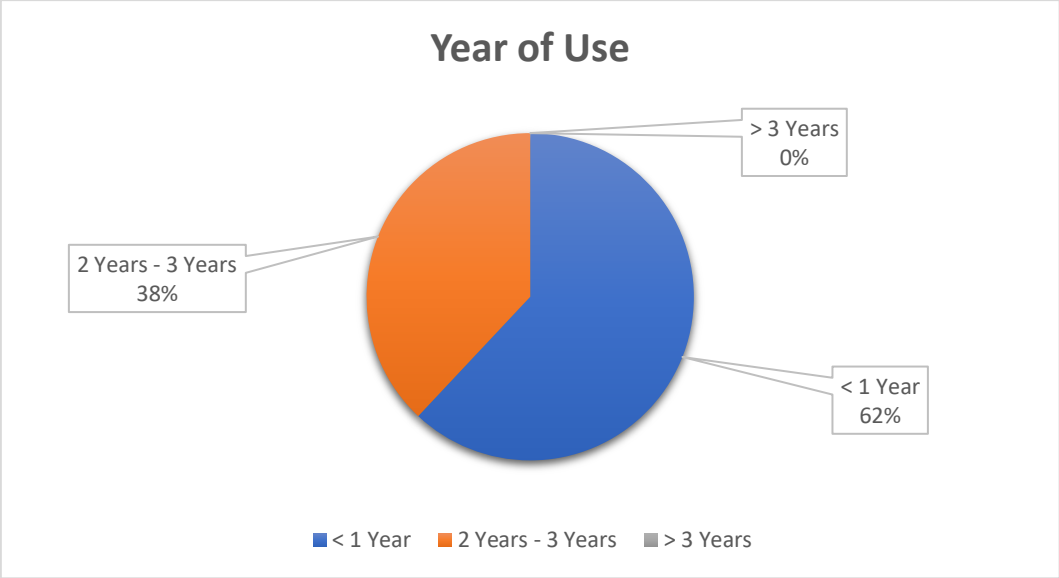


Figure 4. 6 Graph of Respondents By Number of Uses

4.1.2 Result of CJM Respondents in each phase

1. Phase Discover

   From the results described below, what the customer wants and expects in this phase, namely at the search phase, is generated on several components as visualized in the figure start from figure 4.8 until figure 4.13 below for the results of each key component:

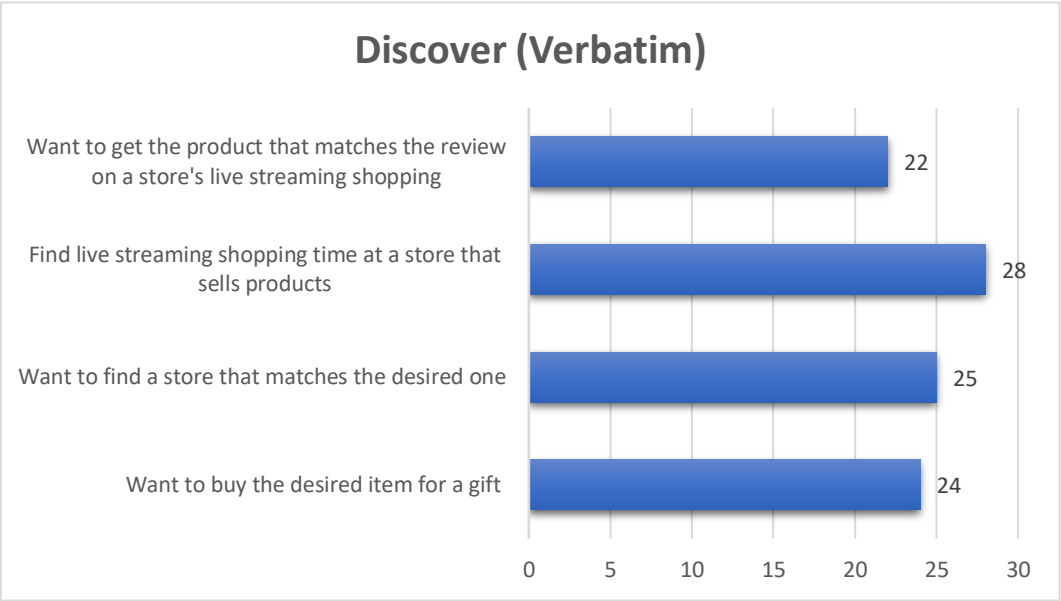


Figure 4. 8 Verbatim in Discover Phase

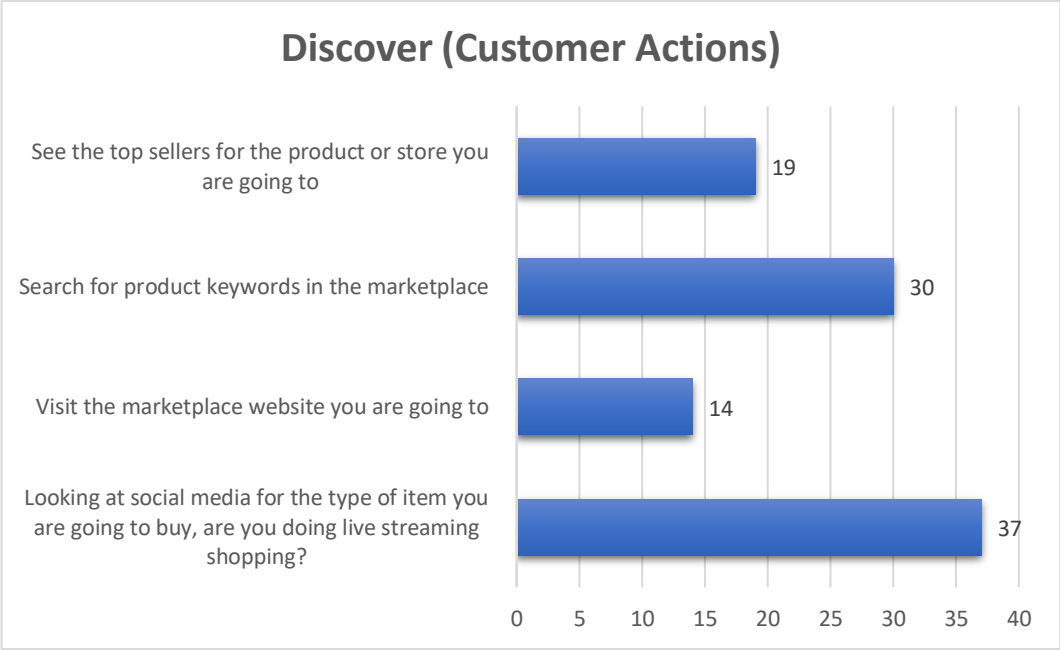


Figure 4. 7 Customer Action in Discover Phase

Figure 4. 9 Pain Point in Discover phase

Figure 4. 10 Goals in Discover phase

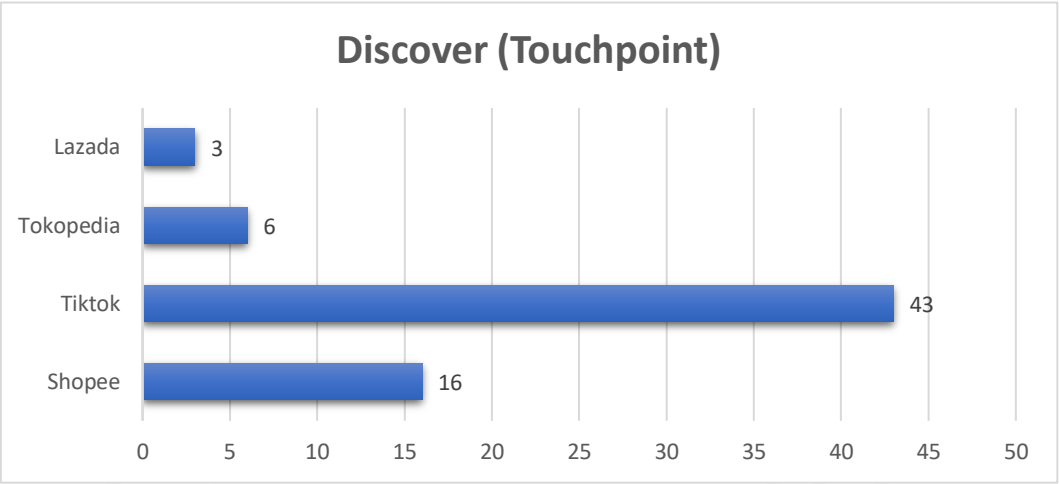


Figure 4. 12 Touchpoint in Discover phase

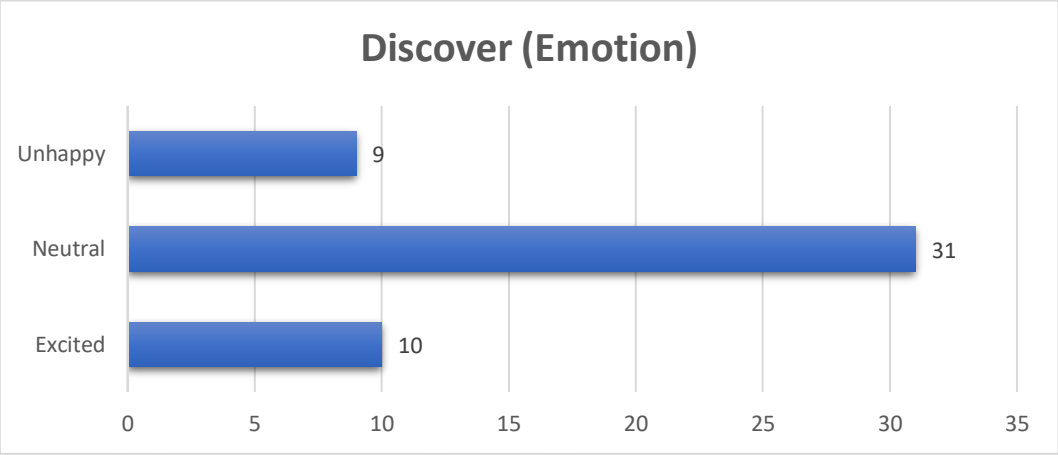


Figure 4. 11 Emotion in Discover Phase

Figure 4. 13 Ideas/Opportunities in Discover phase

2. Phase Consider

From the results described below, what customers want to know more deeply, namely in the consideration phase, is generated in several components, as visualized in the diagram below start from figure 4.14 until figure 4.20 for the results of each key component:

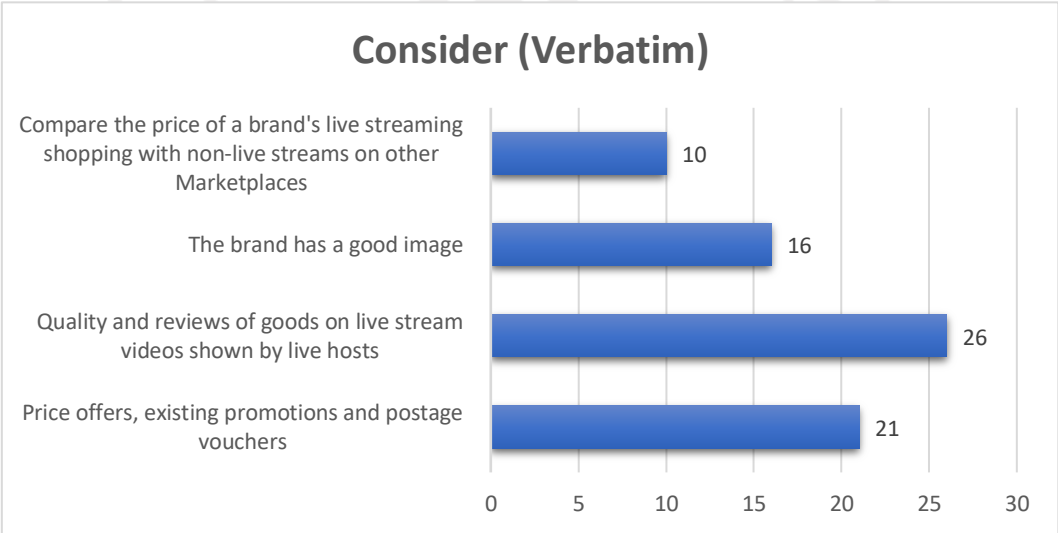


Figure 4. 14 Verbatim in Consider Phase

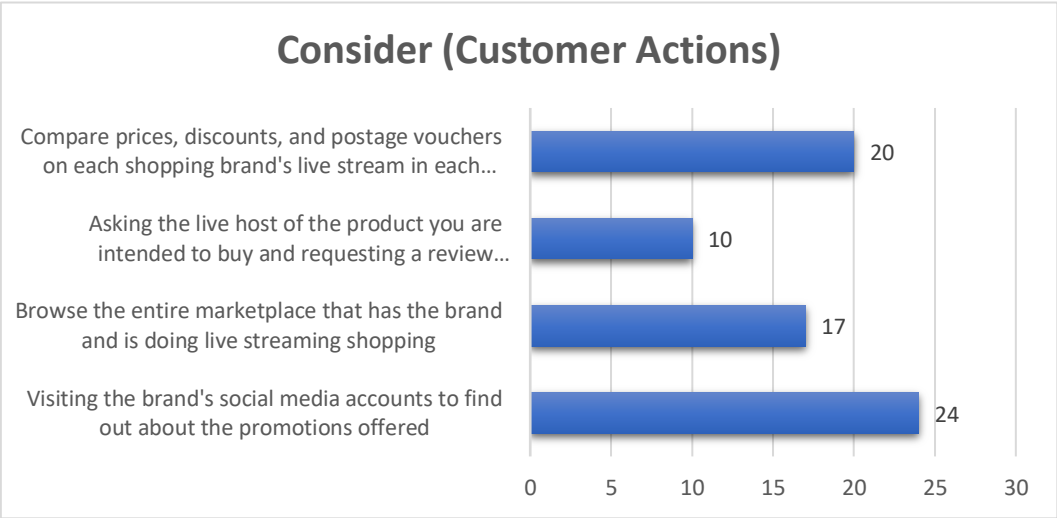


Figure 4. 15 Customer Action in Consider phase

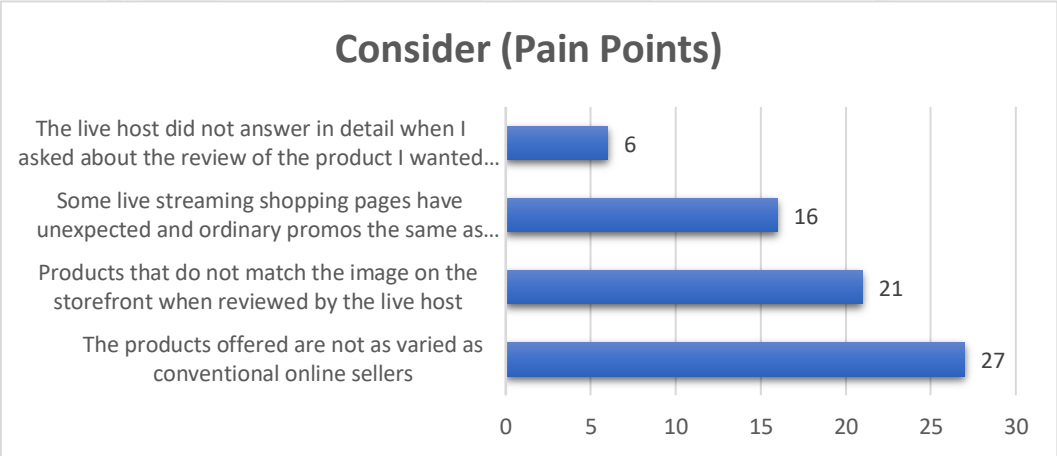


Figure 4. 16 Pain Points in Consider phase

Figure 4. 17 Goals in Consider phase

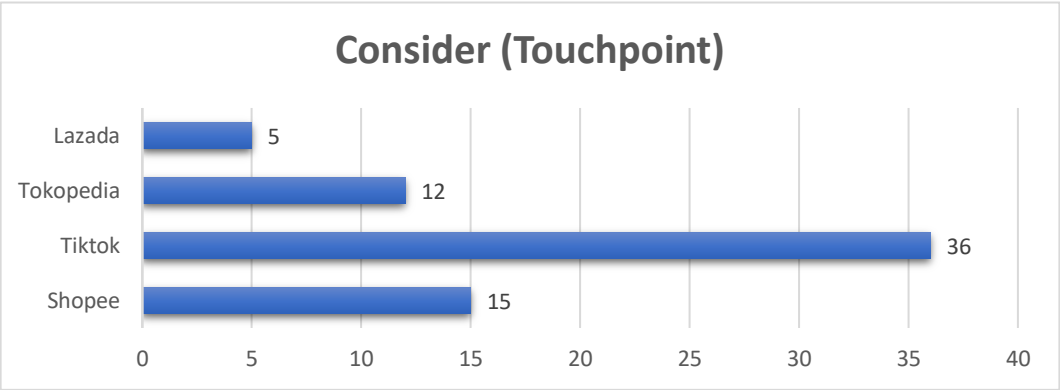


Figure 4. 18 Touchpoint in Consider phase

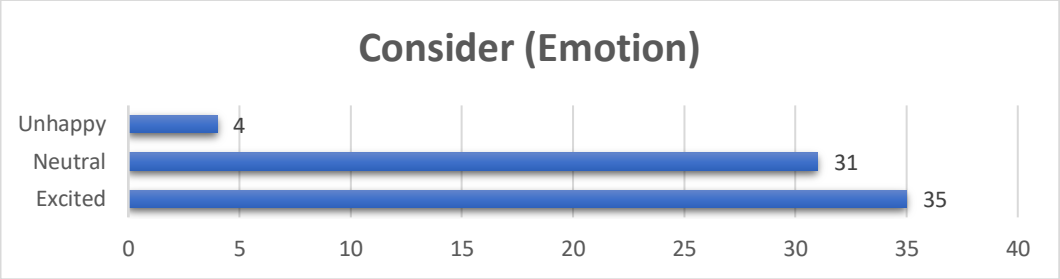


Figure 4. 19 Emotion in Consider phase

Figure 4. 20 Ideas/Opportunities in Consider phase

3. Phase Purchase

The results of the purchase phase, in this third phase, the customer begins to choose to pay for the product they want to buy; the following figures start from figure 4.21 until figure 4.27 are diagrams of the key components in the purchase phase:

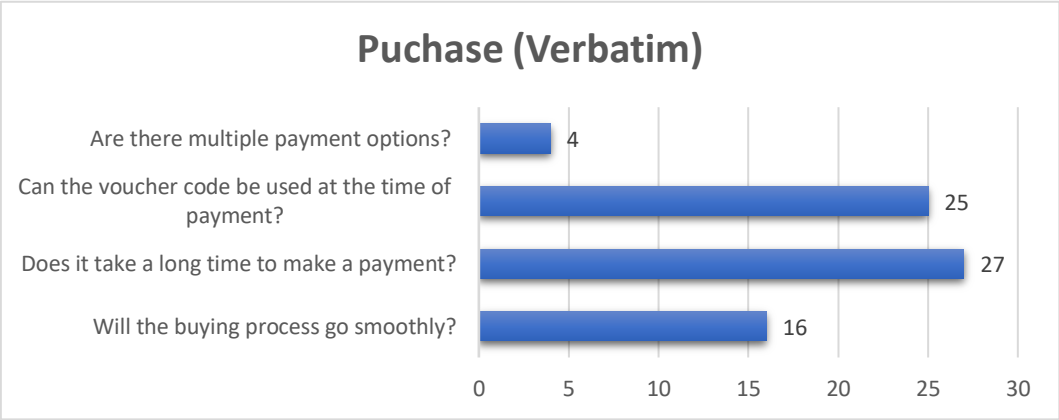


Figure 4. 21 Verbatim in Purchase phase

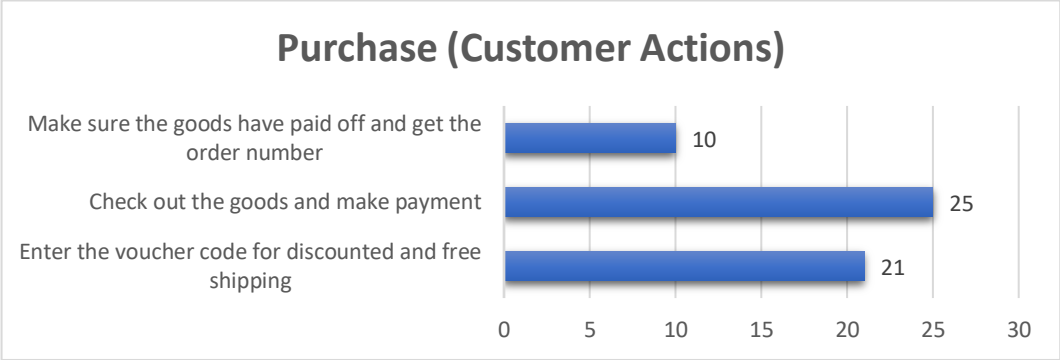


Figure 4. 22 Customer Action in Purchase phase

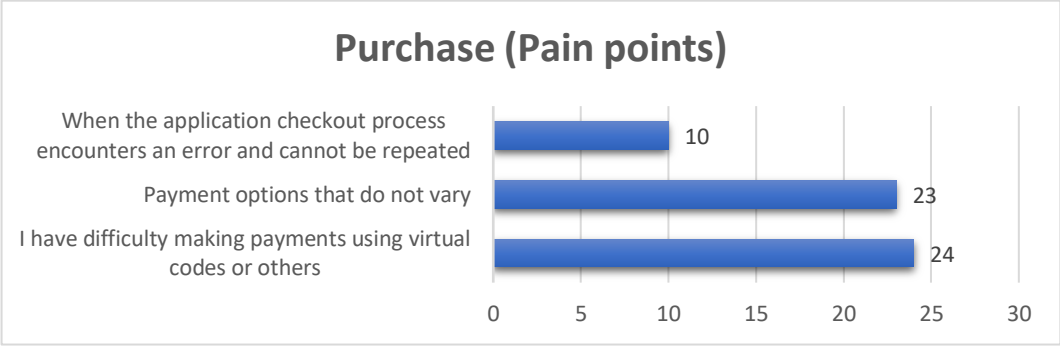


Figure 4. 23 Pain points in Purchase phase

Figure 4. 25 Goals in Purchase phase

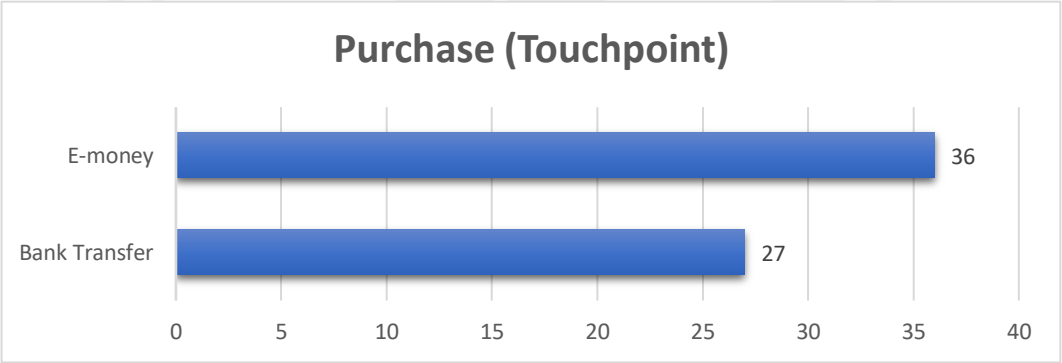


Figure 4. 24 Touchpoint in Purchase phase

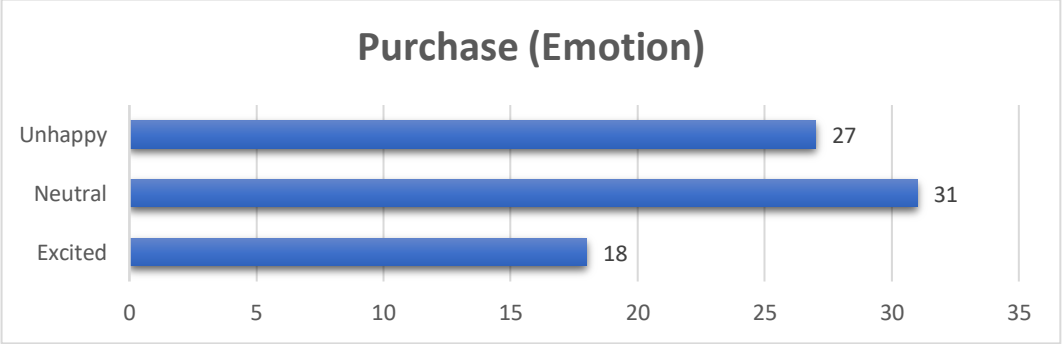


Figure 4. 26 Emotion in Purchase phase

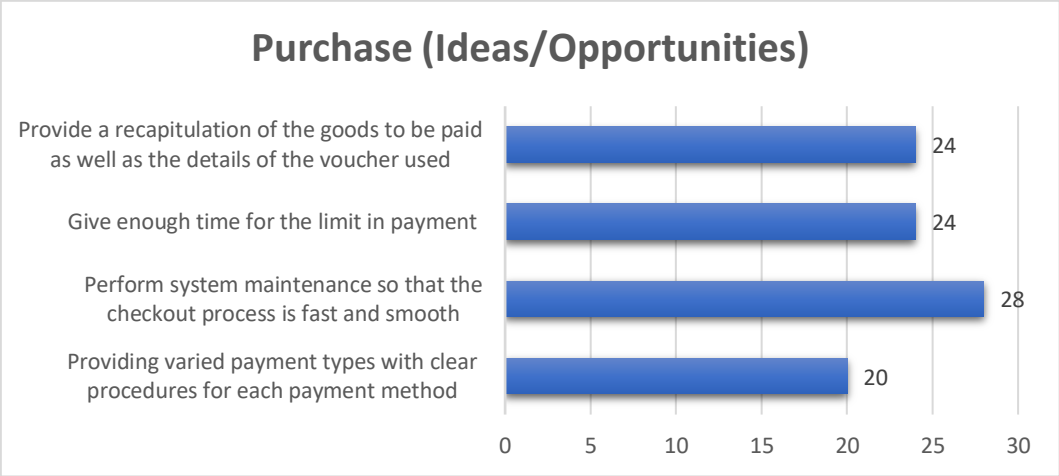


Figure 4. 27 Ideas/Opportunities in Purchase phase

4. Phase Wait for Delivery

The stage where the customer finishes and gets the order number and has to start waiting for the goods to arrive at the destination address is the wait for the delivery phase. The results of this phase are described for each key component start from figure 4.28 until figure 4.34 as follows:

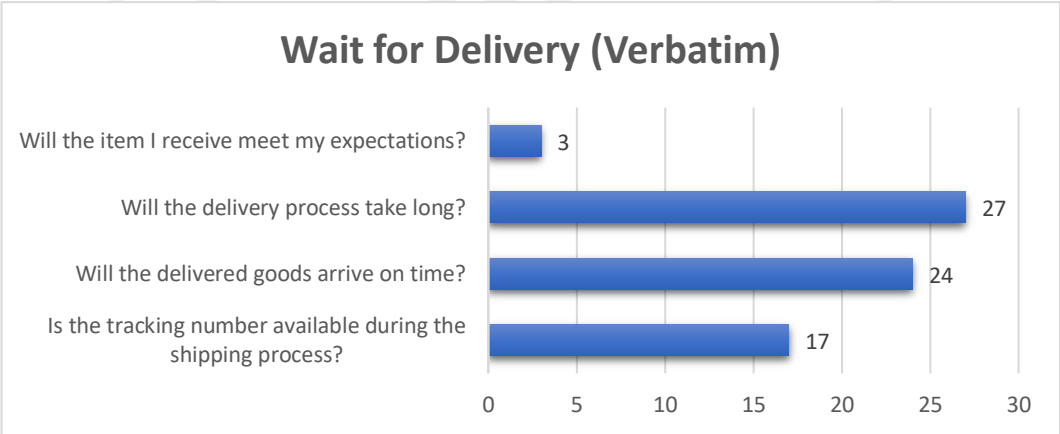


Figure 4. 28 Verbatim in Wait for Delivery phase

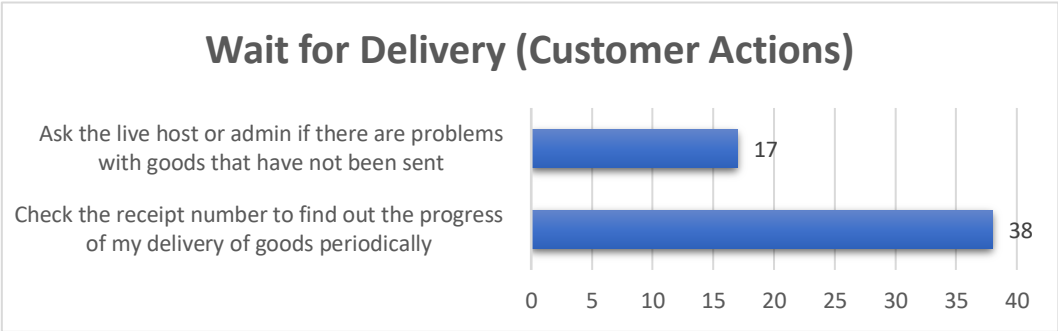


Figure 4. 29 Customer Action in Wait for Delivery phase

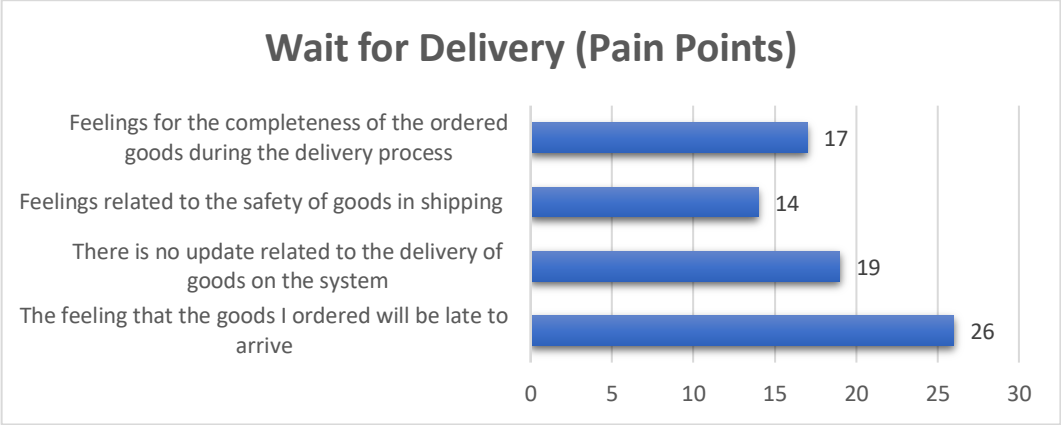


Figure 4. 30 Pain points in Wait for Delivery phase

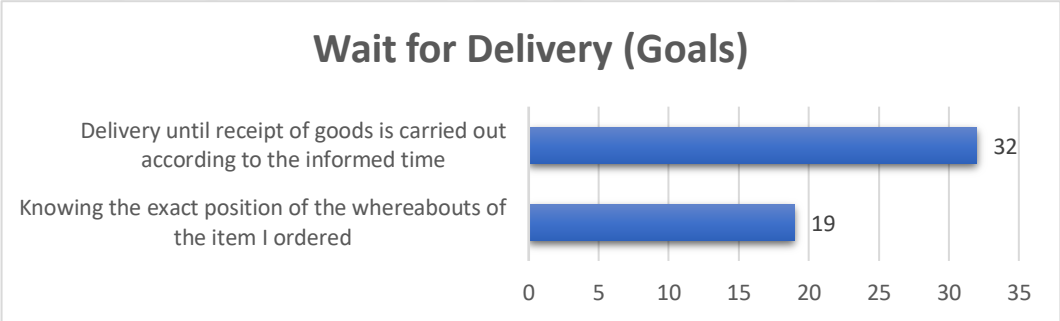


Figure 4. 31 Goals in Wait for Delivery phase

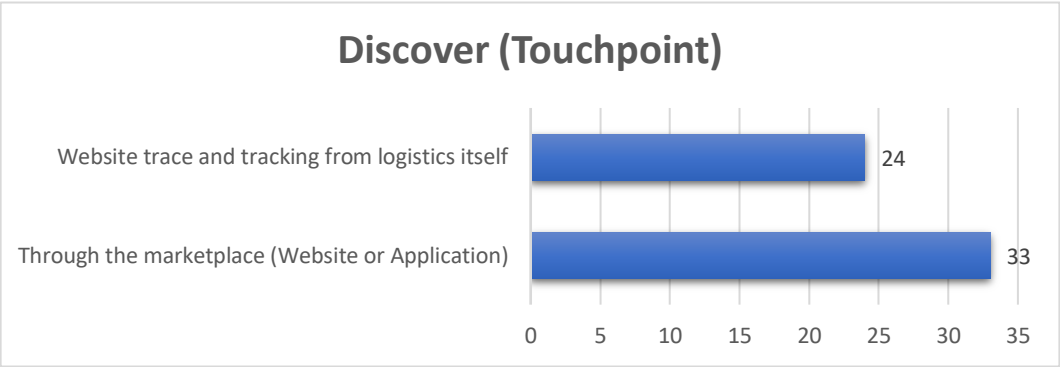


Figure 4. 33 Touchpoint in Wait for Delivery phase

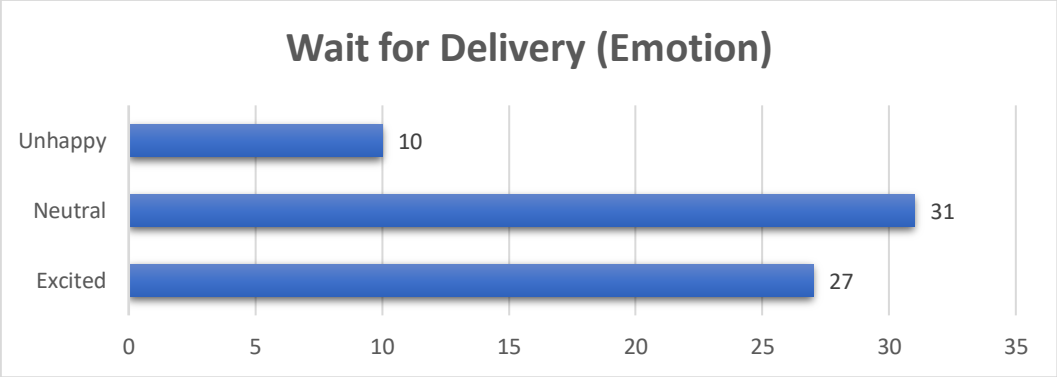


Figure 4. 32 Emotion in Wait for Delivery phase

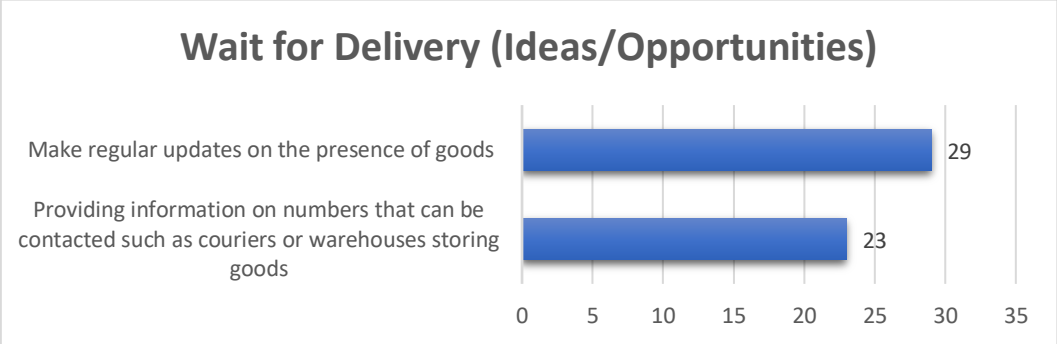


Figure 4. 34 Ideas/Opportunities in Wait for Delivery purchase

5. Phase Receive and Wear/Use Product

The phase where the ordered goods have arrived, and the customer can use them, the results of the key components in the Receive and wear/use product phase, can be seen in the figures start form 4.35 until figure 4.41 as follow:

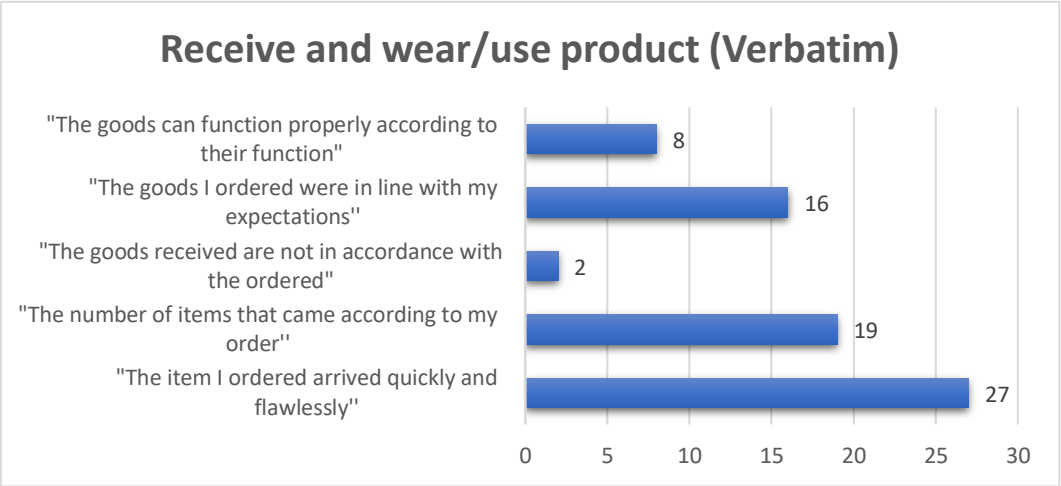


Figure 4. 35 Verbatim in Receive Product phase

Figure 4. 36 Customer Action in Receive Product phase

Figure 4. 37 Pain Point in Receive Product phase

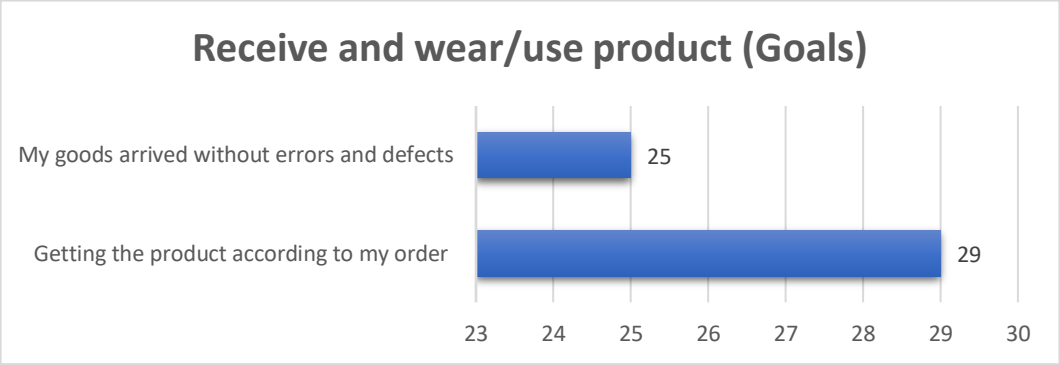


Figure 4. 38 Goals in Receive Product phase

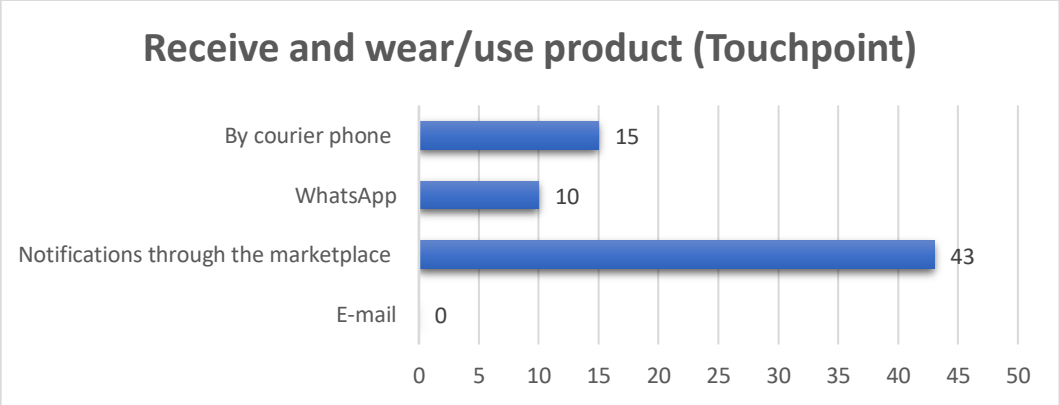


Figure 4. 39 Touchpoint in Receive Product phase

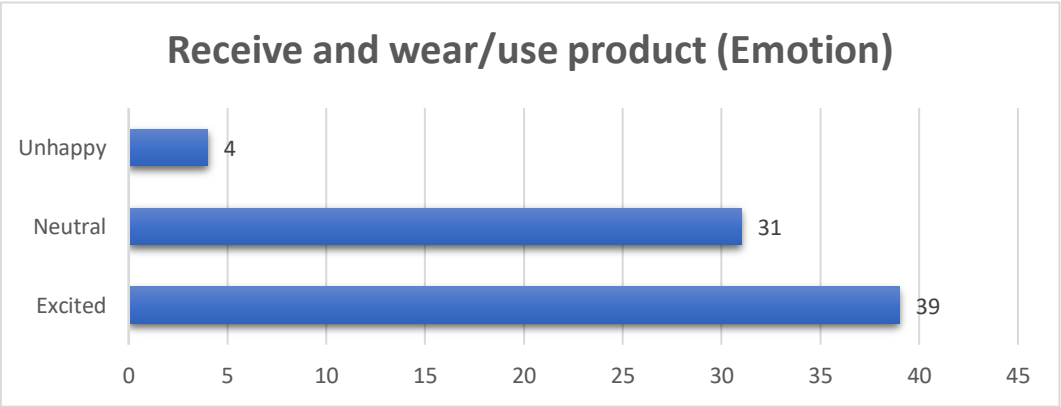


Figure 4. 40 Emotion in Receive Product phase

Figure 4. 41 Ideas/Opportunities in Receive Porduct Phase

4.1.3 Designing Initial Customer Journey Map

Table 4. 1 Initial Customer Journey Map

Persona
- 64% of customers work as students, 16% work as employees, 14% work as a student and 6% work as housewives - 37 people are female, 13 people are male - The average age is 21-25 years - The intensity of shopping in the marketplace as much as 2-4 times there are 70% of customers, 8% of customers as much as 1 time, 16% of customers as much as 5-7 times, and 6% of customers >7 times - Long shopping using marketplace 62% for less than 1 year, 38% for more than 2 years

Phase	Discover		Consider		Purchase	Wait for delivery	Receive and wear/use product
	Motivation	Searches for App or websites	Watch Live-streaming Shopping	Evaluates Products	Pay	Product Delivery Checking	Receives Products
Verbatim (Think)	Want to find a store that matches the desired one- Want to buy the desired item for a gift	- Want to get the product according to the review on	- Quality and review of goods on live stream videos	- The brand has a good image - Comparing the price of a brand's	- Does it take a long time to make a payment? - Can the voucher	- Whether the delivery process will last a long time	- The goods received did not match what was ordered

Phase	Discover		Consider		Purchase	Wait for delivery	Receive and wear/use product
	Motivation	Searches for App or websites	Watch Live-streaming Shopping	Evaluates Products	Pay	Product Delivery Checking	Receives Products
		a live-streaming shopping store - Looking for live-streaming shopping time on a store that sells products	shown by live hosts- - Price offers given, existing promotions, and postage vouchers	live-streaming shopping with non-live streams on other Marketplaces	code be used at the time of payment? - Will the purchase process go smoothly? - Is there a large selection of payment methods?	- Whether the goods delivered will arrive according to the time that has been informed - Whether the receipt number has been available at the time of	- The goods I ordered turned out to arrive quickly and without any defects- The number of goods that came according to my order - The goods I ordered were in

Phase	Discover		Consider		Purchase	Wait for delivery	Receive and wear/use product
	Motivation	Searches for App or websites	Watch Live-streaming Shopping	Evaluates Products	Pay	Product Delivery Checking	Receives Products
						the delivery process - Whether the goods I receive later are in line with my expectations	accordance with my expectations - The goods can function properly according to their function
Customers Action	- Search for product keywords in the marketplace	- Seeing social media for the type of goods	- Visit the brand's social media accounts	- Ask the live host for information on the product you	- Enter the voucher code for discounted prices and	- Check the receipt number to find out the progress of	- Receiving packages and checking the

Phase	Discover		Consider		Purchase	Wait for delivery	Receive and wear/use product
	Motivation	Searches for App or websites	Watch Live-streaming Shopping	Evaluates Products	Pay	Product Delivery Checking	Receives Products
	- See top sellers for the product or store to which it is intended	you are going to buy, are you doing live-streaming shopping? - Visiting the existing marketplace website to go to	to find out the promos offered - Browse the entire existing marketplace of the brand and do live-streaming shopping	are intended to buy and ask for a review directly - Compare prices, discounts, and postage vouchers on each brand's live-streaming shopping in	free shipping-Checkout the goods and make a payment - Make sure the goods have been paid for and get the order number - Check out the goods	my delivery of goods regularly - Ask the live host or admin if there are problems with the goods that have not been sent	packaging under what circumstances - Documenting during the opening process of the ordered goods - Providing reviews if the goods match the order to the

Phase	Discover		Consider		Purchase	Wait for delivery	Receive and wear/use product
	Motivation	Searches for App or websites	Watch Live-streaming Shopping	Evaluates Products	Pay	Product Delivery Checking	Receives Products
				each marketplace	and Make payment		Marketplace where the order was ordered - Trying the purchased goods to determine whether they are suitable or functioning properly - Making a return or

Phase	Discover		Consider		Purchase	Wait for delivery	Receive and wear/use product
	Motivation	Searches for App or websites	Watch Live-streaming Shopping	Evaluates Products	Pay	Product Delivery Checking	Receives Products
							refund if the goods do not match the order
Pain Points	- Where to store to do live-streaming shopping only in certain marketplaces - Admins who do	- Video quality of live-streaming shopping is lacking - It's hard to find a brand	- Some live-streaming shopping pages have unexpected promos and are usually the same as convention	- The products offered are not as varied as conventional online sellers - Products that do not match the	- Payment options that are not varied - I find it difficult to make payments using virtual	- The feeling that the goods I ordered will be late to arrive - The absence of updates related to the delivery of	- Goods not suitable (function, physical, etc.) my expectations - Errors in the size, color, and type of

Phase	Discover		Consider		Purchase	Wait for delivery	Receive and wear/use product
	Motivation	Searches for App or websites	Watch Live-streaming Shopping	Evaluates Products	Pay	Product Delivery Checking	Receives Products
	live-streaming shopping are not clear in product explanations or reviews		al online sales - The live host did not answer in detail when - I asked about the review of the product, and I wanted to buy	images on the storefront at the time of review by the live host	codes or others - When the application checkout process has an error and cannot be repeated - The live host did not answer in detail when I asked about the	goods on the system - Feelings related to the safety of the goods in delivery - Feelings for the completeness of the ordered goods during the delivery	goods shipped - Damage to the goods shipped

Phase	Discover		Consider		Purchase	Wait for delivery	Receive and wear/use product
	Motivation	Searches for App or websites	Watch Live-streaming Shopping	Evaluates Products	Pay	Product Delivery Checking	Receives Products
					review of the product, I wanted to buy	process	
Touchpoints	- TikTok - Shopee - Tokopedia - Lazada		- Tiktok - Tokopedia - Shopee - Lazada		- E-money - Bank Transfer	- Through the marketplace (Website or Application) - Website trace and tracking related expeditions	- Notification via marketplace - By courier phone - WhatsApp

Phase	Discover		Consider		Purchase	Wait for delivery	Receive and wear/use product
	Motivation	Searches for App or websites	Watch Live-streaming Shopping	Evaluates Products	Pay	Product Delivery Checking	Receives Products
Goals	Get goods according to the purpose of buying them-get the goods as desired with the many promos offered	Search for items that match the desired one based on quality and review results on live-streaming shopping that match-looking for brands	- Host Live-streaming shopping on Marketplace that has attractive discount vouchers every session-Live host that can explain my confusion	- Host Live-streaming shopping that offers the cheapest product prices from comparison results with other Live-streaming shopping marketplaces - The products	- Get free shipping Complete transactions and payments quickly and precisely - Get and can use discount vouchers before payment	- Delivery until receipt of goods is carried out according to the informed time - Knowing the exact position of the whereabo	My goods arrived without errors and defects-Getting the goods according to my order

Phase	Discover		Consider		Purchase	Wait for delivery	Receive and wear/use product
	Motivation	Searches for App or websites	Watch Live-streaming Shopping	Evaluates Products	Pay	Product Delivery Checking	Receives Products
			over the product I am going to buy	offered have the appropriate quality from the results of their reviews		uts of the goods I ordered	
	- There is an explanation of the rating on the live shopping page before continuing to enter the live-streaming	- Providing the category of stores that are doing live-streaming shopping	- Giving variations on the sale or use of categories in each live shopping session	- Posting product advertisements with benefits and functions on social media or	- Perform system maintenance so that the checkout process is fast and smooth		

Phase	Discover		Consider		Purchase	Wait for delivery	Receive and wear/use product
	Motivation	Searches for App or websites	Watch Live-streaming Shopping	Evaluates Products	Pay	Product Delivery Checking	Receives Products
	- Can provide explanations made by influencers (affiliates) during live-streaming shopping	- Added a reminder feature that can be linked to the smartphone calendar."	- Conduct periodic promotions with the time that can be reached by customers on a daily basis.	marketplace banners - Host live-streaming shopping is ensured to have a stable signal so that the video quality is good and is able to explain the product clearly	- Provide a recapitulation of the goods to be paid and details of the voucher used - Allow sufficient time for the limit in payment - - Provide varied		

Phase	Discover		Consider		Purchase	Wait for delivery	Receive and wear/use product
	Motivation	Searches for App or websites	Watch Live-streaming Shopping	Evaluates Products	Pay	Product Delivery Checking	Receives Products
					types of payments with clear procedures for each payment method		
Emotion	Neutral		Excited		Unhappy	Neutral	Excited

From the design of the customer journey, it can be seen from the beginning, namely in the discover phase, namely the phase where customers start thinking about where to buy and what to buy, usually what customers do is look at social media to see the types of goods to be purchased, visit the marketplace website with the media that is usually used, which are TikTok, Shopee, and Tokopedia, the emotions felt by customers are neutral for various reasons, namely because the goods offered by Host Live are not the goods that the customer currently needs.

The next phase is the Consider phase, which is considering. Usually, customers will consider several things, such as promotional offers, discounted prices, free shipping, and marketplace image, and compare based on product reviews. After customers think about their considerations usually customers will do something like visit the brand's social media accounts to find out the promos offered, then ask the live host for information regarding the product that is intended to be purchased and ask for a direct review with the media usually used is the marketplace application itself, namely TikTok, Tokopedia, and Shopee, and usually, customers compare based on the 3 marketplaces. The goal that customers want to achieve is to find a Live-streaming shopping Host on the Marketplace that has attractive discount vouchers for each session. The emotion felt by customers in this phase is excited with the reason that the majority of stores provide special discounts during live-streaming.

The purchase phase is the buying stage. Generally in this phase,the customer will think about whether it takes a long time to make a payment, whether the voucher code can be used at the time of payment, whether the purchase process will run smoothly, whether there are many choices of payment methods, then the customer will make a payment. Purchase by entering the voucher code to get a discount and free shipping. The goal that customers want to achieve is to get free shipping. However, in this phase, there are obstacles that are usually felt by marketplace users during live-streaming shopping on the Marketplace, namely payment options that are not varied, then it is difficult to make payments using virtual codes and others. So that at this stage, there are several suggestions given, namely providing various types of payments and performing system maintenance. The emotion felt in this phase is unhappiness because this phase is the toughest phase that the customer has to go through, where the customer has to spend money to buy the goods offered by Host Live.

The wait for delivery phase is the phase of waiting for the goods to arrive at the customer. In this phase, the customer will contemplate about whether the delivery will take a long time, whether the goods sent will arrive at the time that has been informed whether the goods are in accordance with expectations, and whether the receipt number is available during the shipping process. Then, customers will check the receipt number to find out the existence of the goods

ordered through the marketplace application and the expedition website with the aim of knowing the accurate position where the goods they ordered are. However, there are several obstacles that customers usually feel, namely the feeling that the goods I ordered will arrive late, then the position of the goods on the system is not up to date. The emotions felt by customers in this phase are excitement because the goods will arrive soon and because customers can track their orders with the receipt number they get.

The receive and wear/use product phase is situationed in this phase. The customer will think that the goods received are not in accordance with what was ordered, what the customer will do is usually check the packaging, and document the process of opening the ordered goods, with the aim of the goods being ordered arriving without errors and defects, and get the goods in accordance with the order. Usually, Whatsapp is the media used by customers and the marketplace for notifications of goods' arrival. However, there are obstacles that are felt by customers, such as goods that do not meet expectations, errors in size, color, and type of goods, and damage on goods, so the advice is given if an error occurs, the process of returning goods and funds is fast and safe. The emotion felt by customers in this phase is excitement because they receive the goods as expected.

4.2 Electronic Service Quality

4.2.1 Characteristics of Respondents

After distributing the questionnaires, data were obtained regarding the characteristics and profiles of respondents using the Live Shopping Marketplace feature. From the distribution of questionnaires, research respondents were dominated by 61% female respondents and 39% respondents male respondents. For more details, depicted the graph in Figure 4.7 below.

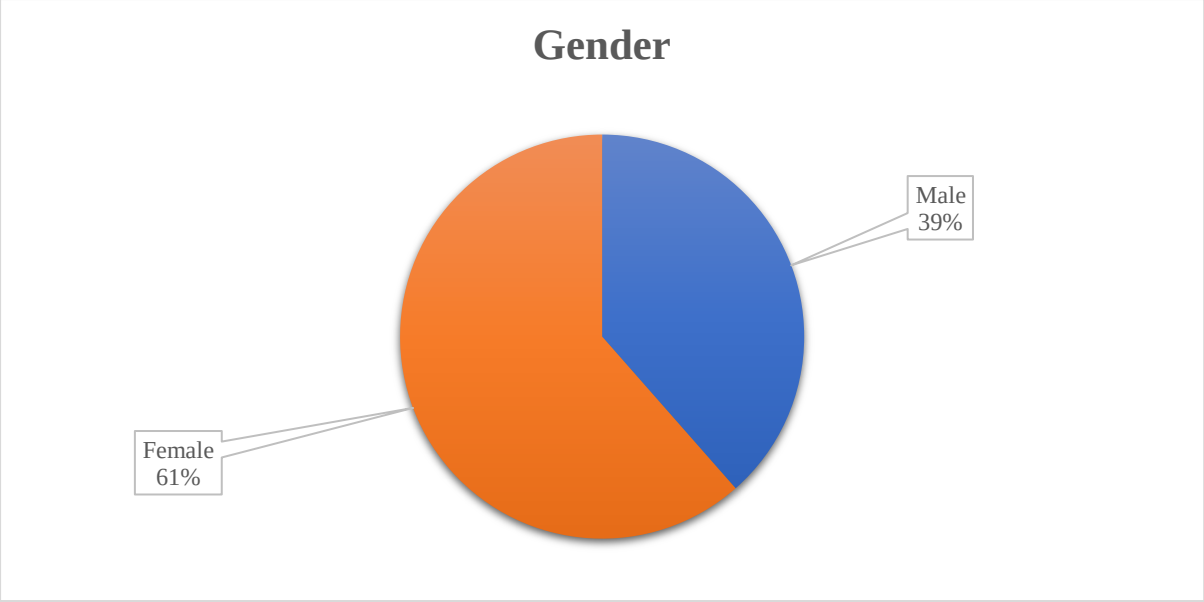


Figure 4. 42 Graphs of Respondents by Gender

Meanwhile, when viewed by age, 71% of respondents were in the age range of 21-25 years. Then followed by the age range 15 - 20 years, as many as 18% of respondents. The age range is 26-30 years, as many as 7% of respondents. Age> 30 years, as many as 3% of respondents, and the age range <15 years, as many as 1% of respondents. For more details, depicted the graph in Figure 4.8 below.

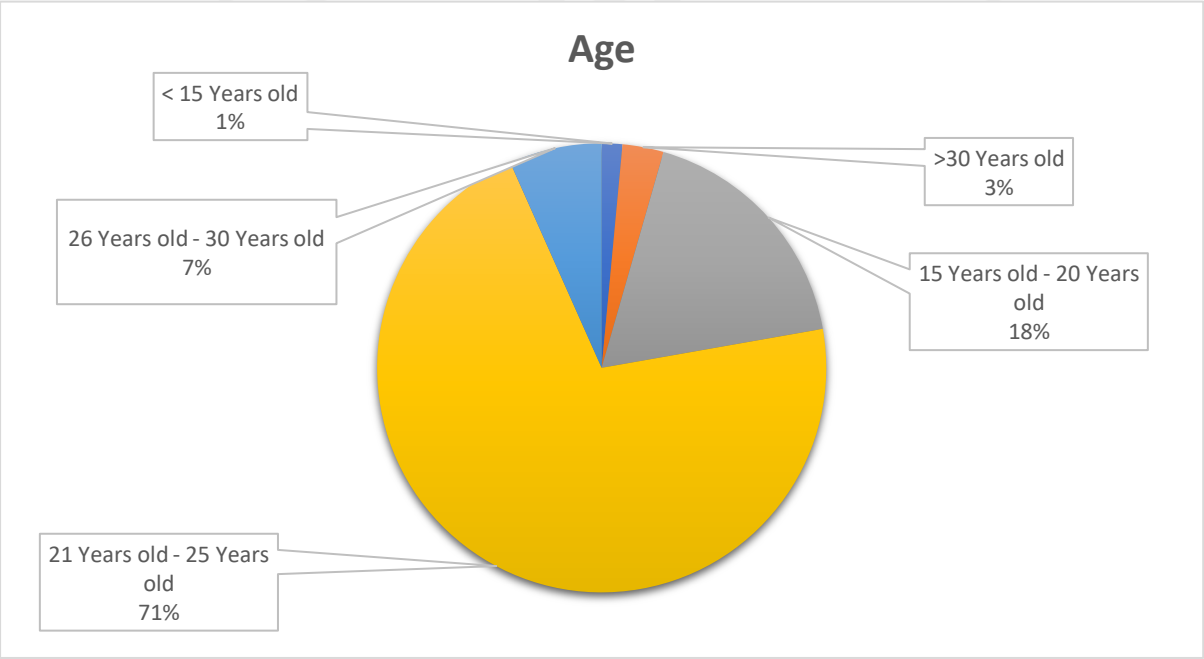


Figure 4. 43 Graphs of Respondents by Age

Research respondents spread throughout the provinces in Indonesia, which are located within the city of Yogyakarta, there are 100 respondents, and outside the Special Region of Yogyakarta, there are 35 respondents. People who live in the Special Region of Yogyakarta dominate as respondents with a percentage of 74% of respondents. Then followed by East Kalimantan with 7% of respondents, DKI Jakarta with 4% of respondents, South Sulawesi with 3% of respondents, Central Java, Banten, and West Sumatra have the same percentage of 2% of respondents, and the last respondent has a percentage of 1%, namely from the provinces of North Sumatra, West Java, North Sulawesi, and Papua. For more details, depicted the graph in Figure 4.9 below.

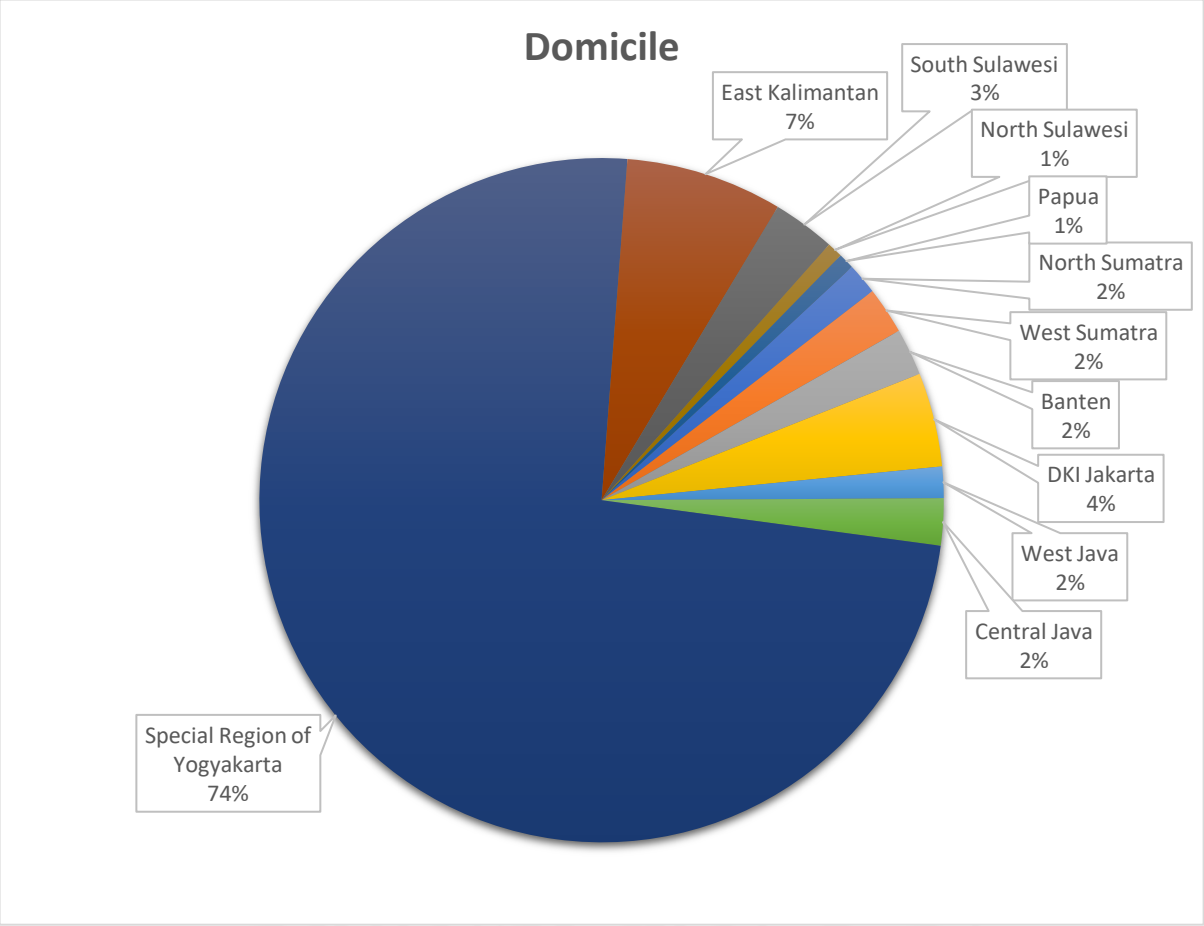


Figure 4. 44 Graph of Respondents by Domicile

The largest percentage of research respondents are students, as much as 67% of respondents. Then followed by respondents who are private employees, as much as 24% of respondents, and respondents who are housewives, students, and entrepreneurs, with 3% of respondents each. For more details, depicted the graph in Figure 4.10 below.

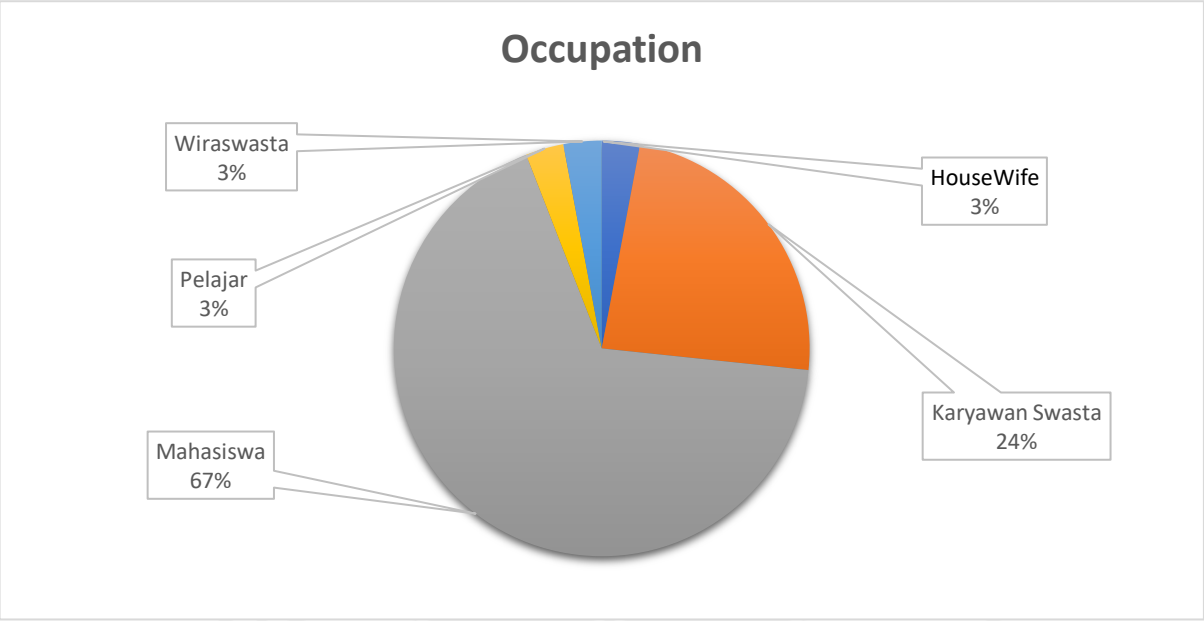


Figure 4. 45 Graphs of Respondents by Job

When viewed based on the number of transactions or orders during live-streaming shopping in the marketplace, most respondents have transacted 2-4 times with a total of 59% respondents. Then followed by 34% of respondents who have transacted 5-7 times, 4% of respondents who have transacted >7 times, and 3% of respondents who have transacted 1 time. For more details, depicted the graph in Figure 4.11 below.

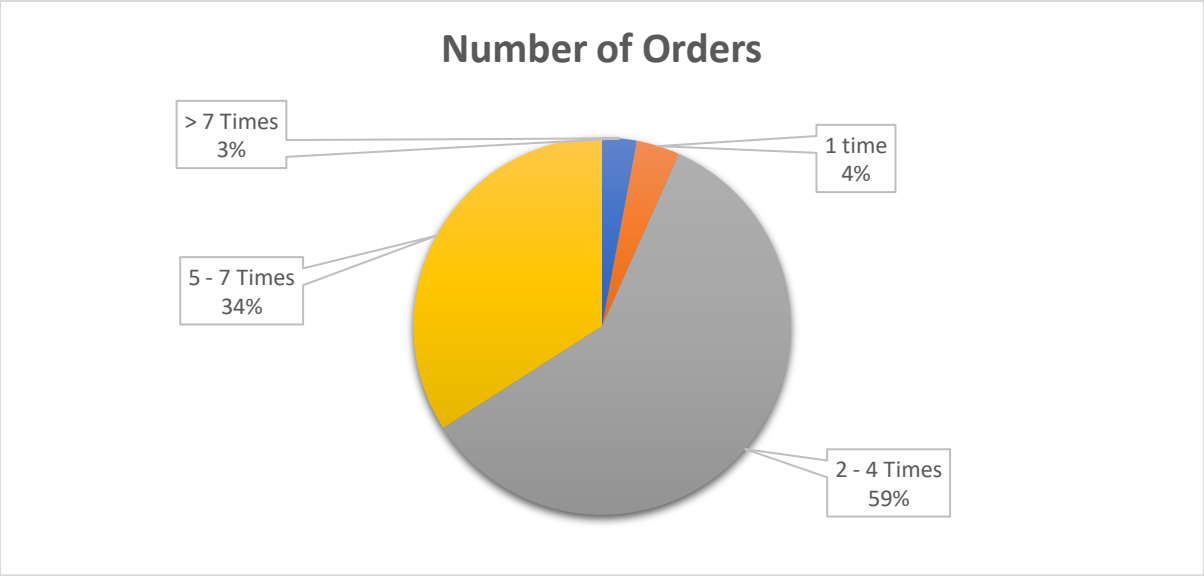


Figure 4. 46 Graph of Respondents by Number of Uses

In relation to respondents who have transacted or ordered during live-streaming shopping in the marketplace, the researchers questioned what types of goods were often or had been purchased by respondents, the reasons for respondents transacting or ordering during live-streaming shopping in the marketplace, and what marketplaces had or frequently used by respondents. Research respondents are allowed to fill in more than one answer to the last three questions.

Based on the type of goods purchased, most respondents chose skincare, based on 91 answers. Then followed by fashion which got 88 answers, accessories got 41 answers, stationery got 33 answers, household appliances got 29 answers, sports necessities got 25 answers, gadgets got 22 answers, and daily necessities got 1 answer. For more details, depicted the graph in Figure 4.12 below.

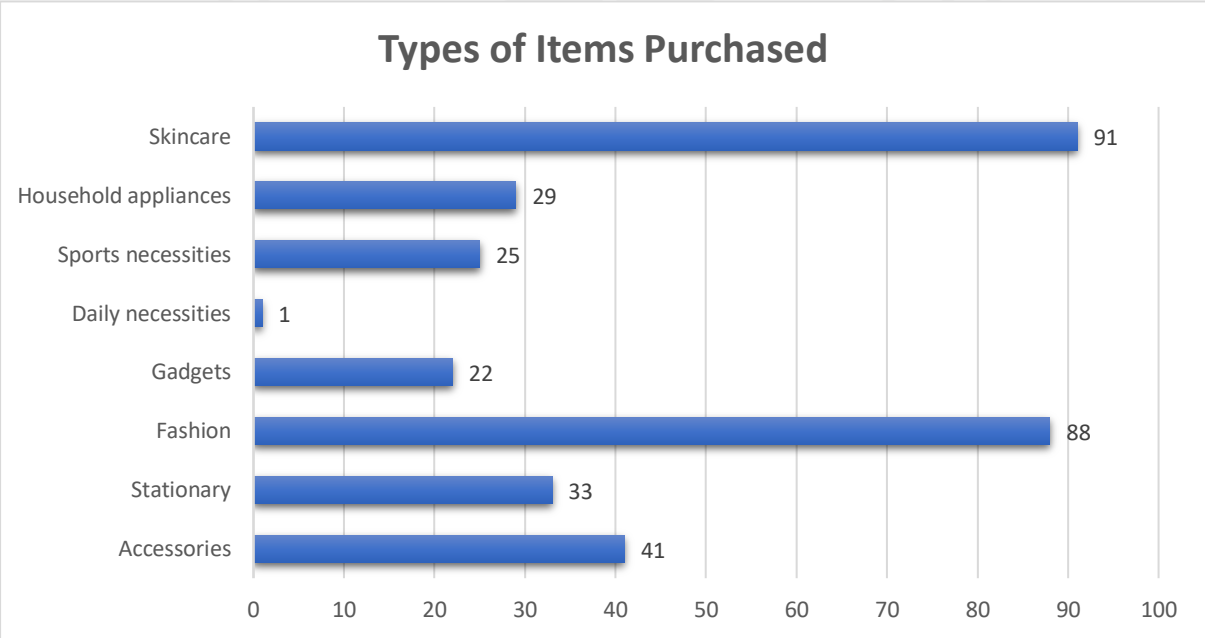


Figure 4. 47 Graphs of Respondents by Types of Items Purchased

Based on the reasons Respondents transacted or ordered during live-streaming shopping on the marketplace, it was dominated by the reason for the discount and the benefits of getting a more valid voucher that got 94 answers. Then followed by the explanation of the product directly and the reason for the review directly, each of which got 86 answers. The reason for the affordable price got 46 answers, the reason for the satisfactory review and the type of goods more complete each got 21 answers, and the reason for the payment is easy to get 9 answers. For more details, see the graph in Figure 4.13 below.

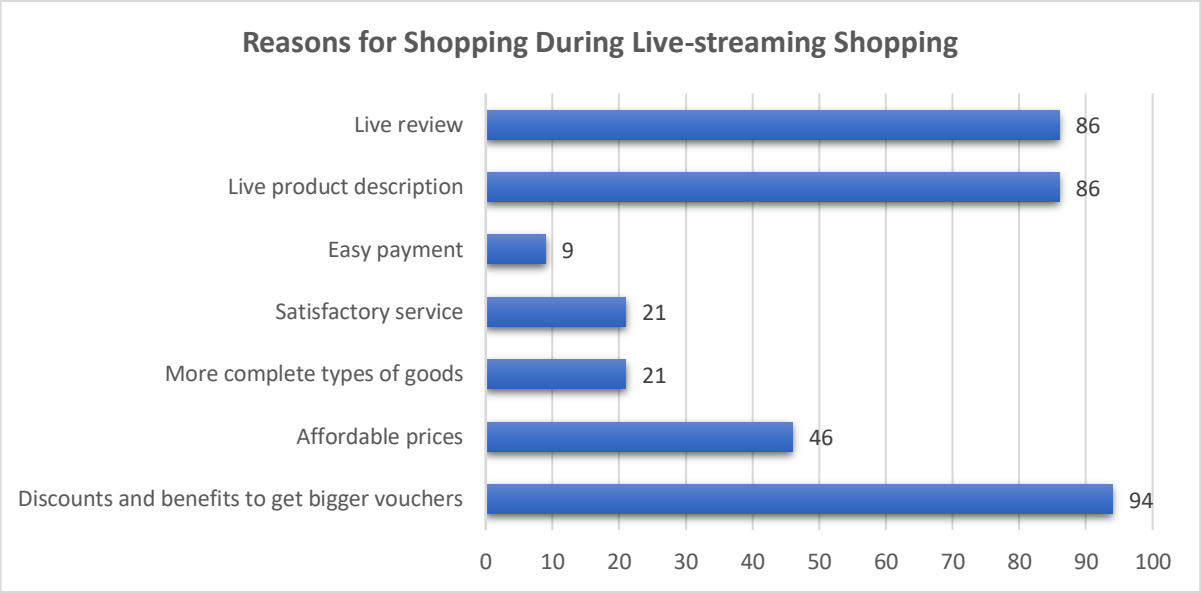


Figure 4. 48 Graphs of Respondents Based on Why To Use Marketplace

Based on the marketplace names used, almost all respondents have made transactions on the TikTok marketplace, with a total of 110 respondents answered. Then Shopee got 68 answers, Tokopedia got 38 answers, and Lazada got 11 answers. For more details, depicted the graph in Figure 4.15 below.

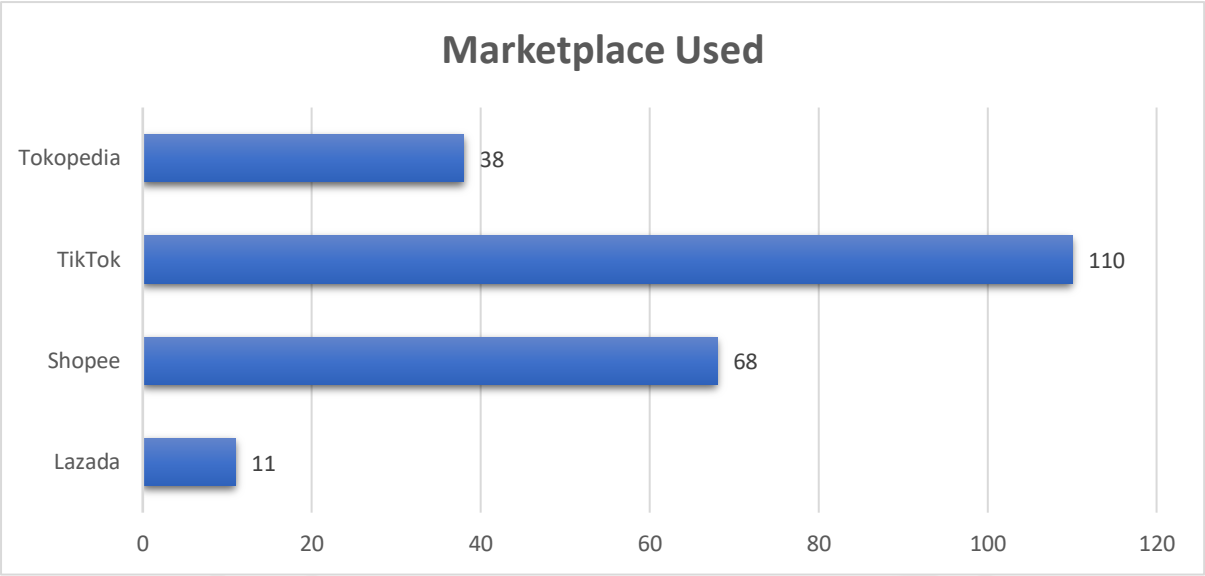


Figure 4. 49 Graphs of Respondents Based on Marketplaces Used

4.2.2 Validity Test

The validity Test is a stage of research to ensure whether or not a questionnaire is valid and used to measure research variables. The purpose of the validity test is to determine the level of accuracy of a research questionnaire and ensure that the answers from the research questionnaire can be used for the data processing stage.

a. Defining hypotheses

   H1 : The question item score is positively correlated with the total question score

   H2 : The question item score is not positively correlated with the total question score

b. Specifying the r-value of a_{table}

   The number of Respondents to the trial of the research instrument was 30 Respondents if df = N-2, then in this study, df = 30 – 2 = 28. The study used a significance level of 5% or 0.05, which was tested both ways. When viewed based on the table r, a value of 0.361 is obtained.

c. Determining the $r_{calculation}$ value

   In this study, The $r_{calculaion}$ value will be identified after a validity test using SPSS software. $r_{calculation}$ value is known from the SPSS output in the Corrected Item – Total Correlation column.

d. Decision

   This decision-making is based on the following statement. If $r_{counts} > r_{table}$ then H1 is accepted, and H2 is rejected. Whereas, if $r_{counts} < r_{table,}$ then H1 is rejected, and H2 is accepted

4.2.3 Consumer Interest (Expectation) Validity Test

Below is Table 4.2, which shows the test results of the validity of consumer interests (expectations) in the marketplace.

Table 4. 2 Test the Validity of Consumer Interests (Expectations)

No.	Questionnaire	Questionnaire Code	r count	r table	Result
Efficiency					
1	The live-streaming shopping feature in the marketplace makes it easy for me to find what I need	X1	0.483	0.361	Valid
2	The live-streaming shopping feature can make it easier to explore live streams according to their categories	X2	0.524	0.361	Valid
3	Live-streaming shopping on Marketplace allows you to quickly complete transactions	X3	0.566	0.361	Valid
4	Accessing live-streaming shopping information in the marketplace is organized according to the direction	X4	0.680	0.361	Valid
5	Livestream shopping on Marketplace contains good pages and video quality	X5	0.644	0.361	Valid
6	Shopping live streams on Marketplace are easy to use, and understand how they look	X6	0.601	0.361	Valid
7	Shopping live-streaming in the marketplace is easily accessible quickly and precisely	X7	0.421	0.361	Valid
8	Shop live streams on a well-organized Marketplace	X8	0.588	0.361	Valid
System availability					
9	Shopping live-streaming in the marketplace makes transactions according to the choice of method	X9	0.511	0.361	Valid
10	Live-streaming shopping on Marketplace launched and accessed across many Marketplace options	X10	0.523	0.361	Valid
11	Live-streaming shopping in the marketplace provides a variety of	X11	0.415	0.361	Valid

No.	Questionnaire	Questionnaire Code	r count	r table	Result
	purchase services with its delivery method as well				
12	Live-streaming shopping on Marketplace isn't limited by buffers or freezes after commenting or refreshing a live stream page	X12	0.570	0.361	Valid
Fulfillment					
13	The admin of the live-streaming shopping host in the marketplace provides information about the estimated time the goods will be received	X13	0.409	0.361	Valid
14	Shopping for live-streaming in the marketplace provides regular information along with couriers who can be contacted	X14	0.660	0.361	Valid
15	Live-streaming shopping on Marketplace quickly sent me what I had ordered	X15	0.625	0.361	Valid
16	Shopping live-streaming in the marketplace sends the items that match the one I ordered	X16	0.636	0.361	Valid
17	Stock items as described and informed by live Live Hosts or live-streaming shopping product storefronts on Marketplace	X17	0.367	0.361	Valid
18	Live live hosts honestly explain their offerings when shopping for live streams on Marketplace	X18	0.463	0.361	Valid
19	Live Hosts promise accurate time in product delivery at the time of shopping live-streaming on Marketplace	X19	0.566	0.361	Valid
Privacy					
20	Live-streaming shopping on Marketplace protects customer shopping behavior and customer shopping history	X20	0.506	0.361	Valid
21	Shopping live-streaming on marketplaces does not share my personal data information (address,	X21	0.369	0.361	Valid

No.	Questionnaire	Questionnaire Code	r count	r table	Result
	phone number, receipt number, etc.) with other sites				
22	Livestream shopping on Marketplace protects information about credit cards, accounts, and more	X22	0.601	0.361	Valid
Responsiveness					
23	Live-streaming shopping on Marketplace gives me clear and convenient options or explanations for the procedure in returning goods	X23	0.593	0.361	Valid
24	When shopping on live-streaming shopping on Marketplace can handle product returns well	X24	0.549	0.361	Valid
25	Shopping for live-streaming in the marketplace offers guarantees and guarantees for its products	X25	0.424	0.361	Valid
26	Shopping live-streaming in the marketplace helps answer questions related to what to do if my transaction is not processed	X26	0.520	0.361	Valid
27	Shopping live streams on Marketplace immediately resolves the issue	X27	0.441	0.361	Valid
Compensation					
28	Live-streaming shopping on Marketplace compensates for issues caused	X28	0.57	0.361	Valid
29	Shopping for live-streaming in the marketplace compensates if the item I ordered does not arrive on time is informed	X29	0.68	0.361	Valid
30	When shopping on a live-streaming in the marketplace, the marketplace refunds the transaction fee for items that cannot be sent	X30	0.46	0.361	Valid
Contact					
31	Shopping for live-streaming in the marketplace compensates if the	X31	0.617	0.361	Valid

No.	Questionnaire	Questionnaire Code	r count	r table	Result
	item I ordered does not arrive on time is informed				
32	When we shop on live-streaming shopping on Marketplace, customers and host involve in immersive interactive questions and answers.	X32	0.667	0.361	Valid
33	When shopping at the live-streaming shopping in the marketplace, there is a live host and customer service admin assistance who can immediately answer existing problems or obstacles	X33	0.446	0.361	Valid

The validity test was carried out on 30 research Respondents to find out $r_{\text{the calculated}}$ value or in SPSS seen from the Correlation value and then compared with the table r value according to the number of respondents tested. If the value of $r_{counts} > r_{table}$ then the first hypothesis is accepted, which means that the score of the question item is positively correlated with the total score of the question.

Based on the results of the validity test on the interests (expectations) of consumers, it can be seen that each question item has a $r_{calculated}$ value that is more than the r_{table} value of 0.361, so it can be notified that all question items are declared valid, and H1 is accepted.

4.2.4 Consumer Performance Validity Test

Below is Table 4.3, which shows the results of the test of the validity of consumer interests in the marketplace.

Table 4. 3 Marketplace Performance Validity Test

No	Questionnaire	Questionnaire Code	r count	r table	Result
Efficiency					
1	The live-streaming shopping feature in the marketplace makes it easy for me to find what I need	X1	0.558	0.361	Valid
2	The live-streaming shopping feature can make it easier to explore	X2	0.488	0.361	Valid

No	Questionnaire	Questionnaire Code	r count	r table	Result
	live streams according to their categories				
3	Live-streaming shopping on Marketplace allows you to quickly complete transactions	X3	0.531	0.361	Valid
4	Accessing live-streaming shopping information in the marketplace is organized according to the direction	X4	0.484	0.361	Valid
5	Livestream shopping on Marketplace contains good pages and video quality	X5	0.461	0.361	Valid
6	Shopping live streams on Marketplace are easy to use and understand how they look	X6	0.477	0.361	Valid
7	Shopping live-streaming in the marketplace is easily accessible quickly and precisely	X7	0.507	0.361	Valid
8	Shop live streams on a well-organized Marketplace	X8	0.451	0.361	Valid
System availability					
9	Shopping live-streaming in the marketplace makes transactions according to the choice of method	X9	0.425	0.361	Valid
10	Live-streaming shopping on Marketplace launched and accessed across many Marketplace options	X10	0.661	0.361	Valid
11	Live-streaming shopping in the marketplace provides a variety of purchase services with its delivery method as well	X11	0.551	0.361	Valid
12	Live-streaming shopping on Marketplace isn't limited by buffers or freezes after commenting or refreshing a live stream page	X12	0.639	0.361	Valid
Fulfillment					
13	The admin of the live-streaming shopping host in the marketplace provides information about the estimated time the goods will be received	X13	0.613	0.361	Valid

No	Questionnaire	Questionnaire Code	r count	r table	Result
14	Shopping for live-streaming in the marketplace provides regular information along with couriers who can be contacted	X14	0.420	0.361	Valid
15	Live-streaming shopping on Marketplace quickly sent me what I had ordered	X15	0.683	0.361	Valid
16	Shopping live-streaming in the marketplace sends the items that match the one I ordered	X16	0.412	0.361	Valid
17	Stock items as described and informed by live Live Hosts or live-streaming shopping product storefronts on Marketplace	X17	0.641	0.361	Valid
18	Live hosts honestly explain their offerings when shopping for live streams on Marketplace	X18	0.617	0.361	Valid
19	Live Hosts promise accurate time in product delivery at the time of shopping live-streaming on Marketplace	X19	0.590	0.361	Valid
Privacy					
20	Live-streaming shopping on Marketplace protects customer shopping behavior and customer shopping history	X20	0.654	0.361	Valid
21	Shopping live-streaming on marketplaces does not share my personal data information (address, phone number, receipt number, etc) with other sites	X21	0.506	0.361	Valid
22	Livestream shopping on Marketplace protects information about credit cards, accounts, and more	X22	0.524	0.361	Valid
Responsiveness					
23	Live-streaming shopping on Marketplace gives me clear and convenient options or explanations for the procedure in returning goods	X23	0.511	0.361	Valid

No	Questionnaire	Questionnaire Code	r count	r table	Result
24	When shopping on live-streaming shopping on Marketplace can handle product returns well	X24	0.600	0.361	Valid
25	Shopping for live-streaming in the marketplace offers guarantees and guarantees for its products	X25	0.609	0.361	Valid
26	Shopping live-streaming in the marketplace helps answer questions related to what to do if my transaction is not processed	X26	0.698	0.361	Valid
27	Shopping live streams on Marketplace immediately resolves the issue	X27	0.466	0.361	Valid
Compensation					
28	Live-streaming shopping on Marketplace compensates for issues caused	X28	0.505	0.361	Valid
29	Shopping for live-streaming in the marketplace compensates if the item I ordered does not arrive on time is informed	X29	0.539	0.361	Valid
30	When shopping on a shopping live stream in the marketplace, the marketplace refunds the transaction fee for items that cannot be sent	X30	0.541	0.361	Valid
Contact					
31	Shopping for live-streaming in the marketplace compensates if the item I ordered does not arrive on time is informed	X31	0.625	0.361	Valid
32	When we shop on live-streaming shopping on Marketplace, customers and live host involve in immersive interactive questions and answers.	X32	0.504	0.361	Valid
33	When shopping on live-streaming shopping in the marketplace, there is a live host and customer service admin assistance who can immediately answer existing problems or obstacles	X33	0.545	0.361	Valid

Similar to the validity test on consumer interests, the marketplace performance validity test was also carried out on 30 respondents of the same research to determine the value of r_{count} or in SPSS seen from the Correlation value and then compared with the rtable value according to the number of respondents tested. If the value of $r_{count} > r_{table}$, the first hypothesis is accepted, which means that the score of the question items is positively correlated with the total score of the question.

Based on the results of the validity test on marketplace performance, it can be seen that each question item has a r_{count} value that is more than the r_{table} value, which is 0.361, so it can be seen that all questions are declared valid, and H1 is accepted. After the validity test was carried out and all the questions were declared valid, then the next research questionnaire was tested for reliability.

4.2.5 Reliability Test

The reliability test is carried out after all items of the questionnaire questions are declared valid. The reliability test itself aims to find out the extent to which the measurement results can be trusted and can be said to have good reliability when the instrument or questionnaire becomes a measuring instrument that is used several times with relatively the same results or answers. Sufren & Nathaniel (2014) said that the questionnaire or instrument used in the study can be said to be reliable when the value of Cronbach's Alpha coefficient is between 0.6 to 0.8. Table 4.4 below shows the results of the research questionnaire reliability test.

Table 4. 4 Questionnaire Reliability Test

No	Research Variables	The Value of Cronbach's Alpha	Result
1	Interests	0.9221	Reliable
2	Performance	0.9248	Reliable

Based on the reliability test conducted, it can be seen that the research variables of consumer interest and marketplace performance have a coefficient value of Cronbach's Alpha which is greater than 0.8. Each research variable has a value of 0.9221 (consumer interest variable) and 0.9248 (marketplace performance variable), which can then be stated that both research variables are reliable and the research controller can be used for actual research.

4.2.6 Electronic Service Quality Data Processing

4.2.6.1 Efficiency

The dimension of efficiency in the e-servqual method of this study is defined as the speed and ease of accessing marketplace sites. The Interest of consumers using the marketplace is to simplify transactions that are more practical so that consumers are facilitated by using the marketplace. This then becomes one of the dimensions that is considered important for consumers. The results of the gap analysis calculation show an average value of -0.88, which means that the market performance value is still lower than the consumer expectation value. For the calculation of the gap value of the efficiency dimension, you can see in Table 4.5 below.

Table 4. 5 Value Gap Dimension Efficiency

Attribute	Questionnaire	Interest	Performance	Gap
X1	The live-streaming shopping feature in the marketplace makes it easy for me to find what I need	4.44	3.76	-0.68
X2	The live-streaming shopping feature can make it easier to explore live streams according to their categories	4.55	3.44	-1.11
X3	Live-streaming shopping on Marketplace allows you to quickly complete transactions	4.35	3.55	-0.80
X4	Accessing live-streaming shopping information in the marketplace is organized according to the direction	4.46	3.60	-0.86
X5	Livestream shopping on Marketplace contains good pages and video quality	4.49	3.61	-0.88
X6	Shopping live streams on Marketplace are easy to use and understand how they look	4.43	3.49	-0.94
X7	Shopping live-streaming in the marketplace is easily accessible quickly and precisely	4.46	3.61	-0.85
X8	Shop live streams on a well-organized Marketplace	4.43	3.55	-0.88
	Average	4.45	3.58	-0. 88

4.2.6.2 System Availability

The dimension of system availability in the e-servqual method is defined by whether the consumer experiences the entire technical function of the marketplace site running correctly or not. The results of the gap analysis calculation show an average value of -0.87, which means

that the market performance value is still lower than the consumer expectation value. For the calculation of the gap value of the system availability dimension, the full range can be seen in Table

4.6 Following.

Table 4. 6 Value Gap Dimensions System Availability

Attribute	Questionnaire	Interest	Performance	Gap
X9	Shopping live-streaming in the marketplace makes transactions according to the choice of method	4.30	3.44	-0.86
X10	Live-streaming shopping on Marketplace launched and accessed across many Marketplace options	4.39	3.65	-0.74
X11	Live-streaming shopping in the marketplace provides a variety of purchase services with its delivery method as well	4.48	3.45	-1.03
X12	Live-streaming shopping on Marketplace isn't limited by buffers or freezes after commenting or refreshing a live-stream page	4.39	3.55	-0.84
	Average	4.39	3. 52	-0. 87

4.2.6.3 Fulfillment

The dimension of fulfillment in the e-servqual method of this study is defined by how the marketplace site meets expectations or expectations in all sorts of transactions, delivery, and availability of goods or services. The results of the gap analysis calculation show an average value of -0.84, which means that the market performance value is still lower than the consumer expectation value. For the calculation of the gap value of the fulfillment dimension, please see table 4.7 below.

Table 4. 7 Value Gap Dimensions fulfillment

Attribute	Questionnaire	Interest	Performance	Gap
X13	The admin of the live-streaming shopping host in the marketplace provides information about the estimated time the goods will be received	4.40	3.63	-0.77

Attribute	Questionnaire	Interest	Performance	Gap
X14	Shopping for live-streaming in the marketplace provides regular information along with couriers who can be contacted	4.52	3.63	-0.89
X15	Live-streaming shopping on Marketplace quickly sent me what I had ordered	4.31	3.48	-0.83
X16	Shopping live-streaming in the marketplace sends the items that match the one I ordered	4.46	3.61	-0.85
X17	Stock items as described and informed by live Live Hosts or live-streaming shopping product storefronts on Marketplace	4.54	3.53	-1.01
X18	Live hosts honestly explain their offerings when shopping for live streams on Marketplace	4.36	3.60	-0.76
X19	Live Hosts promise accurate time in product delivery at the time of live-streaming shopping on the marketplace	4.38	3.70	-0.68
	Average	4.42	3. 60	-0. 84

4.2.6.4 Privacy

The dimension of privacy in the e-servqual method of this study is defined by whether the provision of security guarantees for consumers' information or personal data is felt directly by consumers. The results of the gap analysis calculation show an average value of -0.81, which means that the market performance value is lower than the consumer expectation value. For the calculation of the full value of the privacy dimension gap, please refer to Table 4.8 below.

Table 4. 8 Value Gap Dimensions of Privacy

Attribute	Questionnaire	Interest	Performance	Gap
X20	Live-streaming shopping on Marketplace protects customer shopping behavior and customer shopping history	4.36	3.70	-0.66
X21	Shopping live-streaming on marketplaces does not share my personal data information (address, phone number, receipt number, etc.) with other sites	4.39	3.44	-0.95

Attribute	Questionnaire	Interest	Performance	Gap
X22	Livestream shopping on Marketplace protects information about credit cards, accounts, and more	4.45	3.63	-0.82
	Average	4.40	3. 59	-0. 81

4.2.6.5 Responsiveness

The dimension of responsiveness in the e-servqual method of this study is defined by how marketplace sites Respondents quickly so that consumers become the top priority of marketplace services. The results of the gap analysis calculation show an average value of -0.8 1, which means that the market performance value is still lower than the consumer expectation value. For the calculation of the gap value of the responsiveness dimension, please see table 4.9 below.

Table 4. 9 Value Gap Dimensions of Responsiveness

Attribute	Questionnaire	Interest	Performance	Gap
X23	Live-streaming shopping on Marketplace gives me clear and convenient options or explanations for the procedure for returning goods	4.45	3.65	-0.80
X24	When shopping on live-streaming shopping on Marketplace can handle product returns well	4.38	3.64	-0.74
X25	Shopping for live-streaming in the marketplace offers guarantees and guarantees for its products	4.36	3.55	-0.81
X26	Shopping live-streaming in the marketplace helps answer questions related to what to do if my transaction is not processed	4.43	3.39	-1.04
X27	Shopping live streams on Marketplace immediately resolves the issue	4.33	3.65	-0.68
	Average	4.39	3. 58	-0.81

4.2.6.6 Compensation

The compensation dimension in the e-servqual method of this study is defined by how marketplace site management compensates customers in the event of problems that are felt directly by consumers. The results of the gap analysis calculation show an average value of -0.99, which means that the market performance value is still lower than the consumer

expectation value. For the calculation of the gap value of the compensation dimension, please see table 4.10 below.

Table 4. 10 Compensation Dimension Gap Value

Attribute	Questionnaire	Interest	Performance	Gap
X28	Live-streaming shopping on Marketplace compensates for issues caused	4.33	3.41	-0.92
X29	Shopping for live-streaming in the marketplace compensates if the item I ordered does not arrive on time is informed	4.56	3.36	-1.20
X30	When shopping on a live-stream shopping in the marketplace, the marketplace refunds the transaction fee for items that cannot be sent	4.36	3.50	-0.86
	Average	4.42	3.42	-0. 99

4.2.6.7 Contact

The contact dimension in the e-servqual method of this study is defined by the availability of customer service on a marketplace site by telephone or representative in an area. The results of the gap analysis calculation show an average value of -0.87, which means that the market performance value is still lower than the consumer expectation value. For the calculation of the gap value of the contact dimension, the full range can be seen in Table 4.11 below.

Table 4. 11 Contact Dimension Gap Values

Attribute	Questionnaire	Interest	Performance	Gap
X31	Shopping for live-streaming in the marketplace compensates if the item I ordered does not arrive on time is informed	4.39	3.60	-0.79
X32	When we shop on live-streaming shopping on Marketplace, customers and live host involve in immersive interactive questions and answers.	4.54	3.69	-0.85
X33	When shopping on live-streaming shopping in the marketplace, there is a live host and customer service admin assistance who can immediately answer existing problems or obstacles	4.47	3.51	-0.96
	Average	4.41	3.46	-0. 87

4.2.7 Overall Gap Value

The ranking of the overall gap values aims to determine the order of the gap values from having the largest value to the smallest value. From this ranking, it will be known which attribute has the biggest gap, so improvement priorities are needed. From the results of the calculation of the gap value for each research attribute, the following are Table 4.12 and Table 4.13, which show the order of the overall gap value.

Table 4. 12 Ranking of Each Attribute's Overall Gap Value

Dimension	Attribute	Questionnaire	Interest	Performance	Gap	Rank
Efficiency	X1	The live-streaming shopping feature in the marketplace makes it easy for me to find what I need	4.44	3.76	-0.68	30
	X2	The live-streaming shopping feature can make it easier to explore live streams according to their categories	4.55	3.44	-1.11	2
	X3	Live-streaming shopping on Marketplace allows you to quickly complete transactions	4.35	3.55	-0.80	24
	X4	Accessing live-streaming shopping information in the marketplace is organized according to the direction	4.46	3.60	-0.86	14
	X5	Livestream shopping on Marketplace contains good pages and video quality	4.49	3.61	-0.88	11
	X6	Shopping live streams on Marketplace are easy to use and	4.43	3.49	-0.94	8

Dimension	Attribute	Questionnaire	Interest	Performance	Gap	Rank
		understand how they look				
	X7	Shopping live-streaming in the marketplace is easily accessible quickly and precisely	4.46	3.61	-0.85	16
	X8	Shop live streams on a well-organized Marketplace	4.43	3.55	-0.88	12
System Availability	X9	Shopping live-streaming in the marketplace makes transactions according to the choice of method	4.30	3.44	-0.86	15
	X10	Live-streaming shopping on Marketplace launched and accessed across many Marketplace options	4.39	3.65	-0.74	28
	X11	Live-streaming shopping in the marketplace provides a variety of purchase services with its delivery method as well	4.48	3.45	-1.03	4
	X12	Live-streaming shopping on Marketplace isn't limited by buffers or freezes after commenting or refreshing a live stream page	4.39	3.55	-0.84	19
Fulfillment	X13	The admin of the live-streaming shopping host in the	4.40	3.63	-0.77	26

Dimension	Attribute	Questionnaire	Interest	Performance	Gap	Rank
		marketplace provides information about the estimated time the goods will be received				
	X14	Shopping for live-streaming in the marketplace provides regular information along with couriers who can be contacted	4.52	3.63	-0.89	10
	X15	Live-streaming shopping on Marketplace quickly sent me what I had ordered	4.31	3.48	-0.83	20
	X16	Shopping live-streaming in the marketplace sends the items that match the one I ordered	4.46	3.61	-0.85	17
	X17	Stock items as described and informed by live Live Hosts or live-streaming shopping product storefronts on Marketplace	4.54	3.53	-1.01	5
	X18	Live live hosts honestly explain their offerings when shopping for live streams on Marketplace	4.36	3.60	-0.76	27
	X19	Live Hosts promise accurate time in product delivery at the time of shopping live-streaming on Marketplace	4.38	3.70	-0.68	32

Dimension	Attribute	Questionnaire	Interest	Performance	Gap	Rank
Privacy	X20	Live-streaming shopping on Marketplace protects customer shopping behavior and customer shopping history	4.36	3.70	-0.66	33
	X21	Shopping live-streaming on marketplaces does not share my personal data information (address, phone number, receipt number, etc.) with other sites	4.39	3.44	-0.95	7
	X22	Livestream shopping on Marketplace protects information about credit cards, accounts, and more	4.45	3.63	-0.82	21
Responsive	X23	Live-streaming shopping on Marketplace gives me clear and convenient options or explanations for the procedure in returning goods	4.45	3.65	-0.80	23
	X24	When shopping on live-streaming shopping on Marketplace can handle product returns well	4.38	3.64	-0.74	29
	X25	Shopping for live-streaming in the marketplace offers guarantees and guarantees for its products	4.36	3.55	-0.81	22

Dimension	Attribute	Questionnaire	Interest	Performance	Gap	Rank
	X26	Shopping live-streaming in the marketplace helps answer questions related to what to do if my transaction is not processed	4.43	3.39	-1.04	3
	X27	Shopping live streams on Marketplace immediately resolves the issue	4.33	3.65	-0.68	31
Compensation	X28	Live-streaming shopping on Marketplace compensates for issues caused	4.33	3.41	-0.92	9
	X29	Shopping for live-streaming in the marketplace compensates if the item I ordered does not arrive on time is informed	4.56	3.36	-1.20	1
	X30	The marketplace refunds the transaction fee for items that cannot be sent	4.36	3.50	-0.86	13
Contact	X31	Shopping for live-streaming in the marketplace compensates if the item I ordered does not arrive on time is informed	4.39	3.60	-0.79	25
	X32	When we shop on live-streaming shopping on Marketplace customers and host live immersive	4.54	3.69	-0.85	18

Dimension	Attribute	Questionnaire	Interest	Performance	Gap	Rank
		interactive questions and answers.				
	X33	When shopping on live-streaming shopping in the marketplace, there is a live host and customer service admin assistance who can immediately answer existing problems or obstacles	4.47	3.51	-0.96	6

By considering each question attribute in Table 4.12; the largest gap value is owned by attribute X29, namely "Live-streaming shopping in the marketplace compensates if the item I ordered is not informed in time", while the smallest gap value is owned by attribute X20, namely " Livestream shopping on Marketplace protects customers' shopping behavior and customer shopping history." Meanwhile, when viewed based on each dimension in Table 4.13, the largest gap value is owned by the Compensation dimension and the smallest gap value is owned by the Privacy dimension.

Table 4. 13 Overall Gap Value Rankings Of Each Dimension

No	Dimension	Interest	Performance	Gap	Rank
1	Efficiency	4.45	3.58	-0.88	3
2	System Availability	4.39	3.52	-0.87	4
3	Fulfillment	4.42	3.60	-0.83	5
4	Privacy	4.40	3.59	-0.81	7
5	Responsive	4.39	3.58	-0.81	6
6	Compensation	4.42	3.42	-0.99	1
7	Contact	4.41	3.46	-0.95	2

4.2.8 Marketplace Service Quality Calculation

The quality of marketplace services is one of the factors in knowing the extent of satisfaction felt by consumers. Before the analysis is carried out, according to Besterfield in Handoko (2011), the quality of service can be calculated using the following formula.

$$Kualitas\ Layanan\ (Q) = \frac{Persepsi\ (P)}{Harapan\ (H)}$$

If the value of Q ≥ 1, then the gap in the quality of the live shopping marketplace feature is declared good. Based on the results of the calculation of service quality, the average quality of marketplace services is 0.88. The quality value of each dimension of the live shopping marketplace features can be seen in Table 4.14 below.

Table 4. 14 Calculation of Service Quality

No	Dimension	Interest (H)	Performance (P)	Gap	Q = P/H
1	Efficiency	4.45	3.58	-0.88	0.80
2	System Availability	4.39	3.52	-0.87	0.80
3	Fulfillment	4.42	3.60	-0.83	0.81
4	Privacy	4.40	3.59	-0.81	0.82
5	Responsive	4.39	3.58	-0.81	0.81
6	Compensation	4.42	3.42	-0.99	0.78
7	Contact	4.41	3.46	-0.95	0.79
	Average	4.41	3.54	-0.88	0.80

4.2.9 Data Processing Importance Performance Analysis (IPA)

After calculating and knowing the gap value of each research attribute, the next data processing is the processing of Importance Performance Analysis (IPA) data. The processed IPA data will be depicted in a cartesian diagram aimed at knowing the quadrant position of each service attribute based on the average performance level and the average expectation level.

The IPA cartesian diagram is created by dividing the chart into four quadrants with the X axis, and the Y axis, where the X axis is the average of the market performance variable attribute scores (perceptions) and the Y axis is the average attribute score of the consumer interest variable (expectation). The cartesian diagram of this study was made using IBM SPSS Statistics 26 software. The following is the result of making an IPA cartesian diagram which can be seen in Figure 4.10 below.

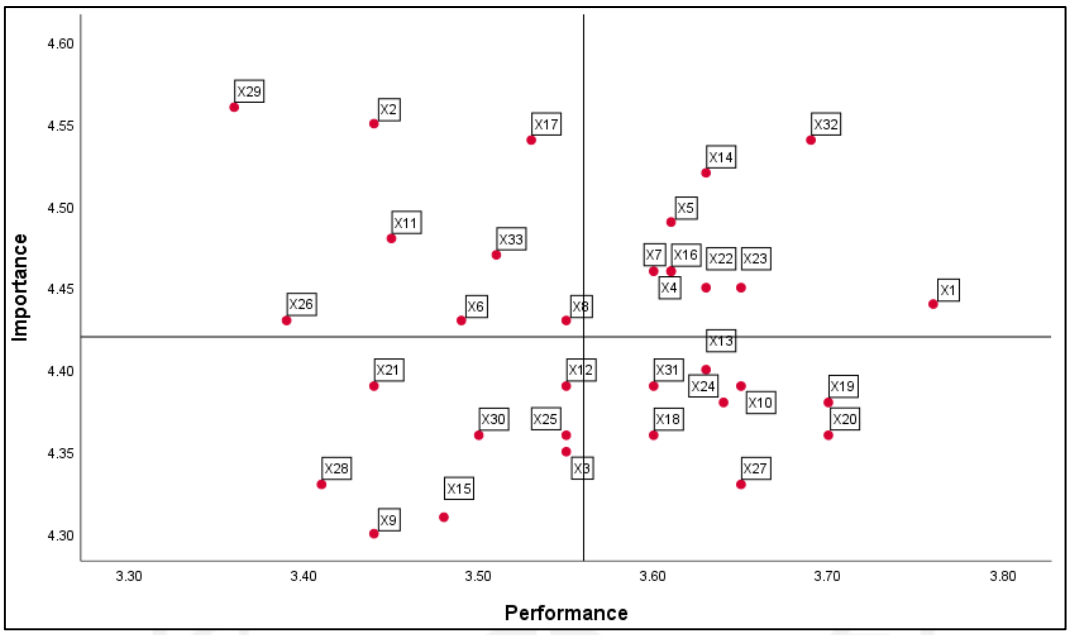


Figure 4. 50 Diagram Importance Performance Analysis (IPA)

4.2.10 Quadrant of Attributes Based on Cartesian Diagrams

Cartesian diagrams are divided into 4 (four) Quadrants, namely Kuadaran I. Attributes that fall into this quadrant require improvement with high priority. Quadrant II is the attributes that must be maintained because it is included in the advantages of the product. Quadrant III is an attribute that is considered not very important by consumers but must still be considered by producers because it affects the perceived benefits. Furthermore, Quadrant IV shows that it is not very important in the eyes of consumers and can be reduced so that losses do not occur.

1. **Quadrant I**: Attributes that require improvement with a high priority

A quadrant contains attributes that are considered important by consumers, but in reality, these attributes have not been as expected. In this quadrant, the marketplace must make continuous improvements so that the performance in this variable increases. The following attributes contained in the quadrant I can be seen in the following Table 4. 15:

Table 4. 15 Quadrant I Cartesian Diagram

No	Code	Attribute
1	X2	The live-streaming shopping feature can make it easier to explore live streams according to their categories
2	X6	Live-streaming shopping on Marketplace is easy to use, and understand how the products appear
3	X8	Shop live streams on a well-organized Marketplace

No	Code	Attribute
4	X11	Live-streaming shopping in the marketplace provides a variety of purchase services with its delivery method as well
5	X17	Stock items as described and informed by live Live Hosts or live-streaming shopping product storefronts on Marketplace
6	X26	Shopping live-streaming in the marketplace helps answer questions related to what to do if my transaction is not processed
7	X29	Shopping for live-streaming in the marketplace compensates if the item I ordered does not arrive on time is informed
8	X33	When shopping live-streaming shopping in the marketplace, there is a live host and customer service admin assistance who can immediately answer existing problems or obstacles

Based on the results of data processing presented in Table 4. 15 indicates that in quadrant I there are 8 attributes that require improvement with high priority.

2. **Quadrant II** : Attributes that must be maintained because they are included in the advantages of the marketplace.

A quadrant that contains attributes that are considered important by consumers and those attributes are in line with the performance of the marketplace. So in this quadrant, the marketplace simply maintains the performance of these attributes. The attributes in quadrant II can be seen in the following Table 4. 16:

Table 4. 16 Quadrant II Cartesian Diagram

No	Code	Attribute
1	X1	The live-streaming shopping feature in the marketplace makes it easy for me to find what I need
2	X4	Accessing live-streaming shopping information in the marketplace is organized according to the direction
3	X5	Livestream shopping on Marketplace contains good pages and video quality
4	X7	Shopping live-streaming in the marketplace is easily accessible quickly and precisely
5	X14	Shopping for live-streaming in the marketplace provides regular information along with couriers who can be contacted
6	X16	Shopping live-streaming in the marketplace sends the items that match the one I ordered
7	X22	Livestream shopping on Marketplace protects information about credit cards, accounts, and more

No	Code	Attribute
8	X23	Live-streaming shopping on Marketplace gives me clear and convenient options or explanations for the procedure for returning goods
9	X32	When we shop on live-streaming shopping on Marketplace, customers and live host involve in immersive interactive questions and answers.

Based on the results of data processing presented in Table 4. 16, it is indicated that in quadrant II there are 9 attributes, which are in line with consumer expectations but must be maintained because they are included in the advantages of products.

3. **Quadrant III**: Attributes that are considered not very important but must still be considered because they affect the perceived benefits

Quadrants that contain attributes that are considered less important by consumers and in performance are less special. So that the increase in variables in this quadrant can be reconsidered by the marketplace because its effect on the benefits felt by consumers is very small. The attributes in quadrant III can be seen in the following Table 4. 17:

Table 4. 17 Quadrant III Cartesian Diagram

No	Code	Attribute
1	X3	Live-streaming shopping on Marketplace allows you to quickly complete transactions
2	X9	Shopping live-streaming in the marketplace makes transactions according to the choice of method
3	X12	Live-streaming shopping on Marketplace isn't limited by buffers or freezes after commenting or refreshing a live stream page
4	X15	Live-streaming shopping on Marketplace quickly sent me what I had ordered
5	X21	Shopping live-streaming on marketplaces does not share my personal data information (address, phone number, receipt number, etc.) with other sites
6	X25	Shopping for live-streaming in the marketplace offers guarantees and guarantees for its products
7	X28	Live-streaming shopping on Marketplace compensates for issues caused
8	X30	When shopping on a shopping live stream in the marketplace, the marketplace refunds the transaction fee for items that cannot be sent

Based on the results of data processing presented in Table 4. 17, it is shown that in quadrant III, there are 8 attributes that need to be considered by the marketplace because these attributes are considered not very important by consumers, but their benefits affect consumers.

4. **Quadrant IV**: Attributes that are less important and can be reduced so that the marketplace does not suffer losses

A quadrant that contains attributes that are considered less important by consumers and in the performance of the product is in a high level of satisfaction so the marketplace needs to reduce the results achieved in order to be cost-efficient. The following attributes contained in quadrant IV can be seen in Table 4. The following 18:

Table 4. 18 Kuadran IV Diagram Kartesius

No	Code	Attribute
1	X10	Live-streaming shopping on Marketplace launched and accessed across many Marketplace options
2	X13	The admin of the live-streaming shopping host in the marketplace provides information about the estimated time the goods will be received
3	X18	Live live hosts honestly explain their offerings when shopping for live streams on Marketplace
4	X19	Live Hosts promise accurate time in product delivery at the time of shopping live-streaming on Marketplace
5	X20	Live-streaming shopping on Marketplace protects customer shopping behavior and customer shopping history
6	X24	When shopping on live-streaming shopping on Marketplace can handle product returns well
7	X27	Shopping live streams on Marketplace immediately resolves the issue
8	X31	Shopping for live-streaming in the marketplace compensates if the item I ordered does not arrive on time is informed

Based on the results of data processing presented in Table 4. 18 shows that in quadrant IV, there are 8 attributes that are less important in the eyes of consumers and can be reduced so that the marketplace can save costs to avoid losses.

4.3 Proposed Customer Journey Map Design

Based on the results of data processing, the Importance Performance Analysis of customers' live-streaming shopping changes in customer journey maps by looking at the correlation between each dimension in the quality calculation with the phase of each key component that has been analyzed. Thus, the design of CJM was carried out, which intersected with the use of live-streaming shopping carried out by the Marketplace.

Table 4. 19 Rekomendasi Customer Journey Map

Phase	Discover		Consider		Purchase	Wait for delivery	Receive and wear/use product
	Motivation	Searches for App or websites	Watch Live-streaming Shopping	Evaluates Products	Pay	Product Delivery Checking	Receives Products
Verbatim (Think)	Find the right item because it's based on the selected category	Find stores that sell similar or appropriate items in live-stream shopping	There are no buffering constraints that occur because the seller	Comparing the price of live-streaming shopping brands with non-live streams on other Marketplaces	- Does it take a long time to make a payment? - Can the voucher code be used at the time of payment?	Will the item I receive meet my expectations?	- “The item I ordered arrived quickly and without defects." - "The item I ordered met my expectations."

Phase	Discover		Consider		Purchase	Wait for delivery	Receive and wear/use product
	Motivation	Searches for App or websites	Watch Live-streaming Shopping	Evaluates Products	Pay	Product Delivery Checking	Receives Products
Customers Action	- Search for product keywords in the marketplace - See the top seller and top sales product	Visiting brand social media, website, and applications that aim for	Browse all marketplaces that have the brand and are doing live-streaming shopping	Asking the live host for information about the product you want to buy and ask for a direct review	Make sure the goods have been paid for and get the order number according to the payment method chosen	Check the receipt number to find out the progress of my delivery of goods on a regular basis	- Receive the package and check the packaging in what condition - Documenting the process of opening the ordered goods - Give a review if the item matches what was ordered on the Marketplace where the order was placed - Make a return or refund if the item does not match the order according to the procedures

Phase	Discover		Consider		Purchase	Wait for delivery	Receive and wear/use product
	Motivation	Searches for App or websites	Watch Live-streaming Shopping	Evaluates Products	Pay	Product Delivery Checking	Receives Products
Pain Points	The sellers or store is not live, and there is no live schedule	Poor-quality live-streaming shopping video	The live host did not answer in detail when asked about a review of the product they wanted to buy	The products offered are not as varied as conventional online sales	- I find it difficult to make payments using a virtual code or other I find it difficult to make payments using a virtual code or other - Unvaried payment options	- The feeling that the ordered item will arrive late - There is no update regarding the delivery of the product on the system	- Items do not match (function, physical, etc.) my expectations - There is a mistake in the size, color, and type of goods shipped
Touchpoints	- Shopee - Tiktok - Tokopedia - Lazada		- Shopee - Tiktok - Tokopedia - Lazada		- Bank Transfer (Direct Card, Virtual Account) - E-money - Retail Market (Indomart, Alfamart) - COD (Cash on Delivery)	- Through the marketplace (Website or Application) - Website trace and tracking related expeditions	- Notification via marketplace - WhatsApp - Via courier - Admin Store in Marketplace
Goals	Get the goods according to the purpose of buying it	Looking for items that match what you want based on the	The live host who can explain my confusion about the	Host Live-streaming shopping that offers the cheapest	- Complete transactions and payments quickly and accurately	- Knowing the exact position of the item I ordered	- Get the goods according to my order - My item arrived

Phase	Discover		Consider		Purchase	Wait for delivery	Receive and wear/use product
	Motivation	Searches for App or websites	Watch Live-streaming Shopping	Evaluates Products	Pay	Product Delivery Checking	Receives Products
		quality and results of reviews on the appropriate live-streaming shopping	product I will buy	product prices from the results of comparisons with other Live-streaming shopping marketplaces.	- Provide information related to products that have been paid for in the form of an explanation of canceled purchases, receipt numbers, and others	- Delivery to receipt of goods is carried out according to the time informed	without errors and defects - Having the convenience of complaining to the seller's shop about the goods you want to return because of an error in the shipping or packaging process.
Ideas/Opportunity	There is an explanation of the rating on the live shopping page before continuing to enter the live stream	There is a categorization of stores that are live-streaming	Variations in sales or use of categories in each live shopping session	The live-streaming store is sure to have a clear explanation of product availability and product sales.	- Provide varied types of payments with clear procedures for each payment method - Perform system maintenance so that the checkout process is fast	Providing information on numbers that can be contacted, such as couriers or warehouses for goods storage	- Extra safe packaging so that the goods are protected - Return of goods to be replaced according to the order can be done quickly, easily, and

Phase	Discover		Consider		Purchase	Wait for delivery	Receive and wear/use product
	Motivation	Searches for App or websites	Watch Live-streaming Shopping	Evaluates Products	Pay	Product Delivery Checking	Receives Products
					and smooth		safely
Emotion	Excited		Excited		Unhappy	Excited	Excited

4.4 Proposed User Interface Design

The design of the user interface proposal is used to be able to answer several obstacles by looking at the top priority in quadrant A in the Importance Performance Analysis, which has then been analyzed for its attributes to be improved through the Customer Journey Map proposal so that a user interface proposal can be made to be the answer to an improvement in appearance so that customers can feel good service quality and have an increase in satisfaction levels. In designing the researchers consider several things to support the design of the User Interface with the following details:

a. Concept

   For a given concept the phone screen showcases various creative approaches to the design of buttons, menus, icons and other controls; designers implemented illustrations, split screens, trendy fonts, and other ways to make the interface not only functional but also minimalist.

b. Layout

   The layout is made based on the correlation results in the CJM phase and attributes on E-Servqual, the use of the basis for the CJM phase results in a layout requirement in the form of a marketplace homepage, live-streaming shopping categorization for discover phase, landing page live-shopping and product cart for consider phase, payment variation for purchase phase, customer service menu and massage landing page for wait and delivery phase, the last one returns product for receive the product phase. The main thing to do in designing the layout is to determine the focal point in the form of color and scale, and pay attention to several things in the form of negative space to become space for breath.

c. Color

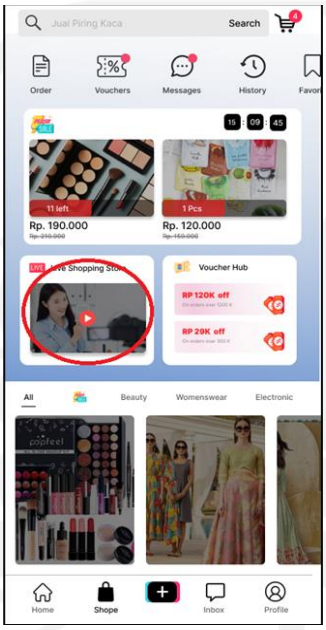
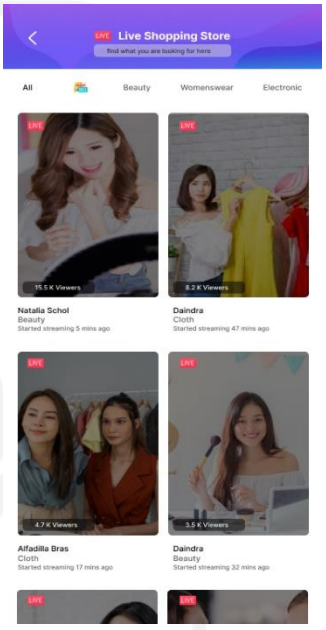
   The choice of color is based on the concept, namely blue which means a positive and happy atmosphere, as well as color gradients to enhance another color in the sense of increasing the attractiveness of purchase intention

Then the resulting user interface results are as follows:

4.4.1 Recommended Category Interface

The design of the category is carried out by holding an option delivered by flash sale and voucher hub to be able to find out which stores are doing live-streaming shopping. Then a category is shown in each took that is doing live-shopping based on the category with interface details shows in table 4.20 as follows:

Table 4. 20 Discover Phase Interface

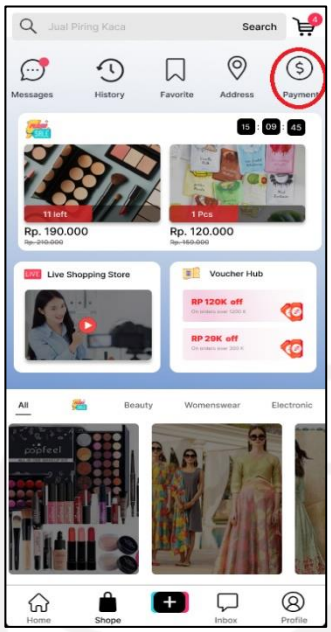
Home page	Click Live Shopping Store
	

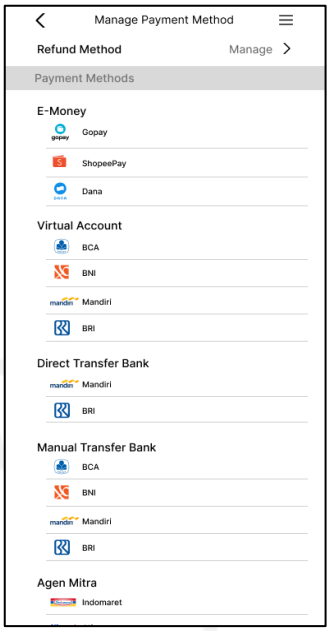
4.4.2 Payment Interface Recommendations

Payment design by adding a variation to payments not only via bank transfer or e-money but other offers, according to the results of the customer's interest analysis. The following in table 4.21 is a suggestion of the appearance and variation of the method provided by the marketplace:

Table 4. 21 Payment Phase Interface

Home page	Click Payment

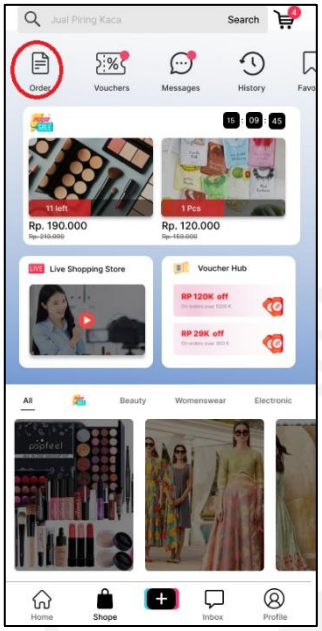
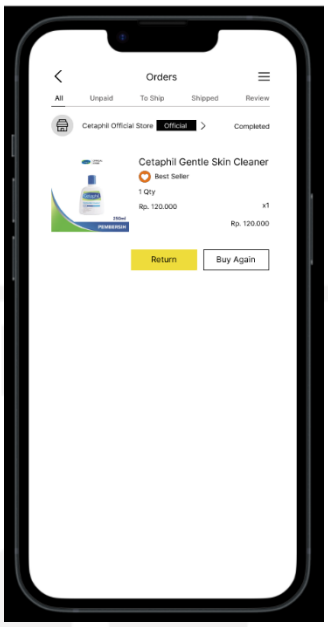
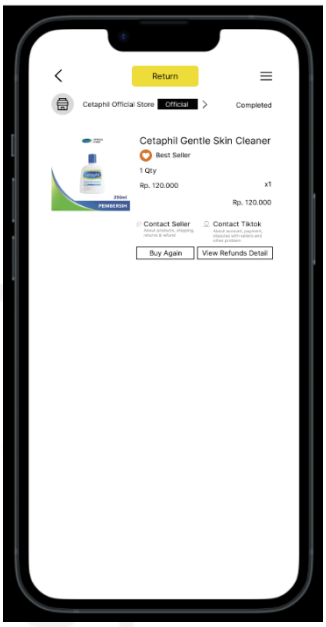




4.4.3 Compensation Interface Recommendations

For customer service proposals that help in returning goods, it is expected to be found an easily accessible section such as the homepage and continued for the option of return because the goods has arrived, which is not at the time of watching live-streaming shopping. The following in table 4.22 is a proposed interface design for live-streaming:

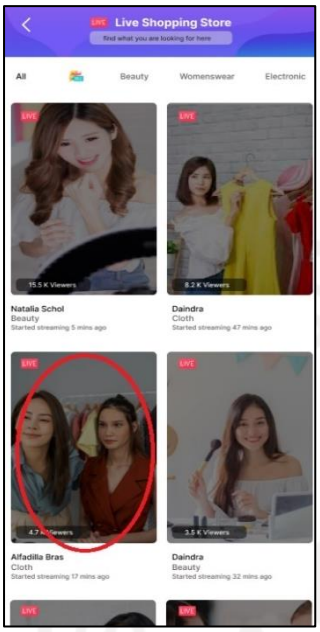
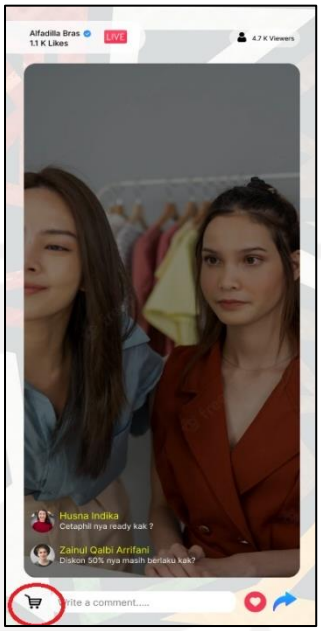
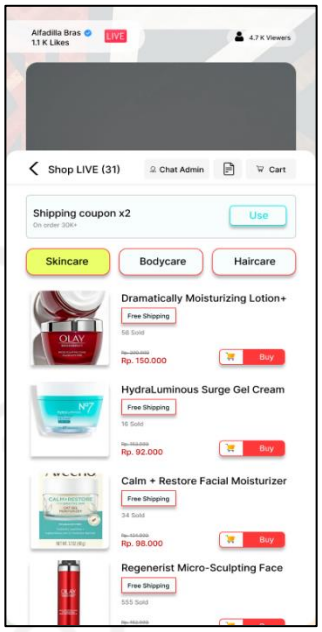
Table 4. 22 Recieve The Product Phase Interface

Home page	Click Orders	Return
		

4.4.4 Live-streaming Page Interface Recommendations

Suggestion for live-streaming is to provide information in the form of product stock availability in stores, as well as giving categories to the product baskets offered by specifying the store you want to see and taking action to click on the product basket. In the table 4.23 is a proposed interface for live-streaming landing page:

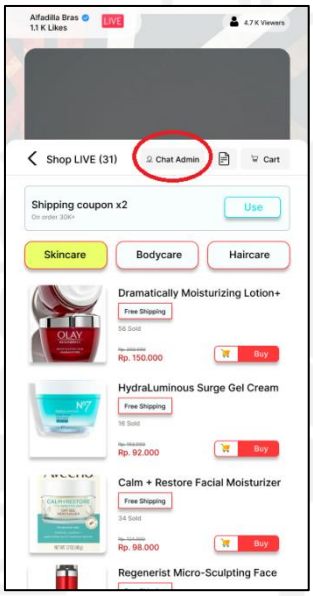
Table 4. 23 Consider Phase Interface

Live-streaming Homepage	Live-streaming page	Product Cart
		

4.4.5 Customer service or Admin store Interface Recommendations

Designing a user interface to access interaction with customer service to ask for details related to products or other things, which are not answered in detail by the live host, it is easy to find other admins in each store. With the choices obtained from the product basket. The following in the tabel 4.24 is a proposed interface design for customer service:

Table 4. 24 Wait for Delivery Phase Interface

Product Cart	Customer Service
	

CHAPTER V
DISCUSSION

This chapter contains the analysis that has been carried out based on the results of research data processing. The results of this discussion provide the expected answers in accordance with the objectives of the study.

5.1 Customer Journey Mapping Design Analysis

Customer journey mapping is widely used today as a description of the process undergone by customers while interacting with the company Currently, designing and visualizing customer experience in CJM is something that is important to do, and also, according to them, CJM is important to do in order to reach the point of customer satisfaction (Lemon & Verhoef, 2016). The satisfaction point in this study was seen based on the main factors of customers making purchases, whether from the factors of electronic service quality, promotion, and brand image. So, from these factors, the design of this CJM was carried out to see the customer's journey and shopping experience. The increasing focus on customer experience arises due to the interaction between customers and the industry (marketplace) so that it is described more complexly on the customer journey (Kvale & Folstad, 2018)

The design of customer journey mapping can be seen in table 4.18. In the design, you can see some information such as demographic data (persona), and stages consisting of discover, consider, purchase, wait for delivery, and receive and wear/use the product. At the same time, the key components consist of verbatim (think), customer actions (do), pain points (stop), touchpoints, goals, ideas/opportunities, and emotions. This design is carried out to find out the customer journey based on the use of live-streaming shopping in the marketplace.

From the customer journey design, it can be seen from the beginning, namely in the discover phase, namely the phase when customers start thinking about where to buy and what to buy, usually what customers do is look at social media to see the types of goods to be purchased, visit marketplace websites with media that are usually used are TikTok, Shopee, and Tokopedia, the emotions felt by customers are neutral for various reasons, namely because the goods offered by Live hosts are not an item that customers need.

The next phase is the Consider phase, which is considering. Usually customers will consider several things, such as promotional offers, discounts, free shipping, and marketplace imagery, and compare based on product reviews. After customers think about their considerations, they usually will do other related activities, something as visiting the brand's social media accounts to find out the promo offered, then asking the live host for information on the assembled product and asking for a direct review by media that is commonly used, such as TikTok, Tokopedia, Lazada and Shopee. Generally, the customers compare 4 marketplaces. The goal that customers want to achieve is to find a Live-streaming shopping host that offers attractive discount vouchers every session. The emotion that customers feel in this phase is excitement because the majority of stores provide special discounts during live-streaming.

The purchase phase is the purchase phase. In this phase the customer will think about whether it takes a long time to make a payment, whether the voucher code can be used at the time of payment, whether the purchase process will take place smoothly, whether there are many choices of payment methods, then the customer will make a purchase by entering the voucher code to get a discount and free shipping. The goal that customers want to achieve is to get free shipping. However, in this phase, there are obstacles that are usually felt by marketplace users when live-streaming shopping on the marketplace, namely payment options that are not varied, then it is difficult to make payments using virtual codes and others. So at this stage, there are several suggestions given, namely providing varied types of payments and carrying out system maintenance. The emotions felt in this phase are unhappy because this is the toughest phase that customers have to go through, in which customers have to spend their money to buy goods offered.

The wait-for-delivery phase is the phase of waiting for the goods to arrive to the customer. In this phase, the customer will think about whether the delivery will last a long time, whether the goods delivered will arrive according to the time that been informed and the goods are in accordance with expectations, and whether the receipt number has been available during the delivery process. Then, customers will check the receipt number to find out the whereabouts of the goods ordered through the marketplace application and expedition website with the aim of knowing the accurate position where the

goods they ordered are. However, there are some obstacles that are usually felt by customers, namely the feeling that the goods that the customer ordered will arrive late, then not up to date the position of the goods on the system. The emotions felt by customers in this phase are excitement because the goods will arrive soon and feel excited because customers can track their orders with the receipt number obtained.

The receive and wear/use product phase usually in this phase the customer will think that the goods received are not in accordance with what was ordered, which will be done by the customer usually checking the packaging and documenting during the process of opening the ordered goods, with the aim that the pliers' goods are ordered until without errors and defects, and get the goods that match the order. The media used by customers in this phase is a marketplace notification that the goods have arrived and Whatsapp. However, there are usually obstacles felt by customers, such as goods that do not match expectations, errors in the size, color, and type of goods, and damage to goods, so that advice is given if something goes wrong, the process of returning goods and funds takes place quickly and safely. The emotion felt by customers in this phase is excitement because they receive the goods in accordance with expectations.

5.2 Analysis of Gap Electronic Service Quality (E-SERVQUAL)

Based on the processing of e-servqual gap data carried out, further discussions will be carried out regarding the results of the processed e-servqual data. The discussion included the attributes of what questions have the highest gaps, what dimensions of e-servquals have the highest gaps, and how the quality of marketplace services is felt by consumers.

5.2.1 Analysis of the Gap between Importance and Performance

Calculating the gap between consumer interests and marketplace performance will illustrate how the condition of the quality of marketplace services. If the gap value has a positive value, it can be said that the quality of marketplace services provided to consumers is good. However, if the gap value has a negative value, then the quality of services provided by the marketplace has not met consumer expectations and needs to improve quality so that it can meet consumer expectations.

1. Efficiency Dimension

   The dimension of efficiency in the e-servqual method of this study is defined as the speed and ease of accessing marketplace sites. The Interest of consumers using the marketplace is to simplify transactions that are more practical so that consumers are facilitated by using the marketplace. This then becomes one of the dimensions that is considered important for consumers. The results of the gap analysis calculation show that the X2 attribute, namely the live-streaming shopping feature, can make it easier to explore live-streaming according to its category to the top of the order because it has a gap value of -1.11. This is supported by the experience of consumers who feel difficulty in understanding the appearance so that it takes some time to find the desired store or product. Some consumers have complained that the content of the live stream interface on Marketplace contains pages and video quality that is not good for the site. Complaints about the use of marketplace site filters are also widely heard. Many consumers complain about the failure of the filter function to narrow the search for the desired goods, and this creates difficulties for consumers to find goods and stores that match the desired specifications and more or less affects the ease and speed of consumers in finding the goods needed to find out more about the stores that are live-streaming. Some consumers also complain about the constraints of completing transactions quickly.

2. System Availability Dimension

   The dimension of system availability in the e-servqual method of this study is defined by whether consumers experience the entire technical function of the marketplace site running correctly or not. The results of the gap analysis calculation show that the X11 attribute, namely Live-streaming shopping in the marketplace, provides various purchase services with its delivery method as well, being the top order because it has a gap value of -1.03. This happens because of the experience of consumers who complain several times about shipping through logistics that do not have many choices.

3. Fulfillment Dimensions

The dimension of fulfillment in the e-servqual method of this study is defined by how the marketplace site meets expectations or expectations in all sorts of transactions, delivery, and availability of goods or services. The results of the gap analysis calculation show that the X17 attribute, namely the stock of goods as described and informed by the live live host or storefront of live-streaming shopping products on the Marketplace, is the top order because it has a gap value -1.01. Information on the availability of goods is also a concern for consumers, several times experiences have been found about the difference between the information on the stock of goods in the marketplace, which in fact, the stock of goods has actually run out. This causes consumer discomfort and disappointment because they fail to get the desired goods. Basically, the marketplace has provided and interfaced estimates of goods sent by sellers and will be received by consumers; it's just that some consumers still experience packaging times that take a long time and also delays in goods reaching consumers. There are even consumers who experience that the goods are not sent without confirmation to consumers, so there are problems with the return of fees that have been paid.

4. Privacy Dimension

   The dimension of privacy in the e-servqual method of this study is defined by whether the provision of security guarantees for consumers' information or personal data is felt directly by consumers. The results of the gap analysis calculation show that the X21 attribute, namely the Marketplace does not share customer personal information with other sites, is the top order because it has a gap value -0.95. Some consumers admitted that they are still not very sure about the privacy rights of consumer personal data information provided by the marketplace to consumers, this happens because consumers feel that the marketplace still does not provide strong guarantees for the security of consumers' personal information.

5. Responsiveness Dimension

   The dimension of responsiveness in the e-servqual method of this study is defined by how marketplace sites Respondents quickly so that

consumers become the top priority of marketplace services. The results of the gap analysis calculation show that the X26 attribute, namely Shopping live-streaming in the marketplace, helps answer questions related to what to do if customer transactions are not processed, being the top order because it has a gap value -1.04. The cause of this dissatisfaction is influenced by several factors, including the availability of online customer service on the site, so that it has not been able to immediately report the problems that occur; there is no firmness of the marketplace towards the seller who causes the problem and does not immediately fix it. Some consumers admitted that they had difficulty in carrying out the product return process due to the seller's fault, but the seller could not be cooperative and consumers did not get a solution from the marketplace for the problem that occurred.

6. Compensation Dimension

   The dimension of compensation in the e-servqual method of this study is defined by how the management of the marketplace site compensates customers in case of problems that are felt directly by consumers. Based on the results of the gap calculation, the analysis shows that this dimension is the dimension that has the highest gap value and the X29 attribute, namely the marketplace site, compensates customers when what the Customer ordered did not arrive on time, becoming the top order because it has a gap value -1.20. This can happen because the marketplace site has interfaced an estimated packaging time and an estimated time for the goods to arrive. It's just that in reality, there is still a lot of packaging time or time for goods to be late from the estimate, giving the impression of discomfort to consumers and the absence of compensation given. For the mistakes that arise, many consumers argue that compensation is almost never obtained. However, some consumers also state that sellers whose goods they buy provide compensation to consumers, such as being given discounts or refunds with conditions and can even make refunds of transaction fees for goods that cannot be sent. This indicates the presence of inconsistencies in the compensatory dimension.

7. Contact Dimensions

The contact dimension in the e-servqual method of this study is defined by the availability of customer service (customer service) on a marketplace site by telephone or representative in an area. The results of the gap analysis calculation show the X33 attribute, namely, when shopping on live-streaming shopping in the marketplace, there is a live host and customer service admin assistance that can immediately answer existing problems or obstacles, becoming the top order because it has a gap value -0.96. Consumers who have problems in the marketplace independently contact customer service, whose contacts are listed on the marketplace site. However, customer service contacts on marketplace sites are not always found easily, so some consumers cannot quickly contact customer service. Some of these consumers argue that it might be better if there is a separate section that provides online interactive chat available on the marketplace site.

8. Overall Gap

   The highest to lowest e-servqual dimension gap values are the compensation dimension, Responsiveness dimension, Contact dimension, Fulfillment dimension, System availability dimension, Privacy dimension, and Efficiency dimension. Processing results can show the top five rankings of attributes with the largest gap values:

   a. The marketplace site compensates the Customer when what the Customer ordered does not arrive on time (X29). The provision of compensation from the marketplace when the ordered goods did not arrive on time became a satisfaction for the consumer, but in fact, the consumer felt that the performance of this attribute was still below the marketplace site compensated the Customer when what the customer ordered did not arrive on time (X29) Compensation from the marketplace when the ordered goods did not arrive punctuality is a satisfaction for consumers, but in reality, consumers feel that the performance of this attribute is still below.
   b. Marketplace sites give customers difficulties in approaching the shopping feature using live-streaming (X2), consumers feel that the performance of this attribute is still below their importance, or in other words, the marketplace so far has not provided the

convenience of the interface that should be the most important thing for customers to access it.

c. Marketplace sites are addressing issues with immediate (X26) live-streaming shopping in the marketplace, helping to answer questions related to what to do if my transaction is not processed. In fact, the performance of the marketplace in answering questions related to what to do if my transaction is not processed immediately is still under its priority, so consumers are still dissatisfied. This happens when the live host answers questions immediately, and the marketplace's decisive action against the seller, which causes a lack of satisfaction with the service, has not been handled properly.

d. The marketplace site handles product returns well (X11) and Provision of various purchasing services with its shipping methods as well. This has more or less an effect from the previous X29 attributes on compensation for problems caused and compensation when ordered goods do not arrive on time. The realization of handling product returns properly is not felt by consumers because the application is not yet good. The poor handling of returns is illustrated by the difficulty of consumer communication with sellers to submit existing complaints.

e. The marketplace is clear about stock availability (X17). Honesty and suitability of the marketplace about stock items as described and informed by live Live Hosts or storefronts of live-streaming shopping products on the Marketplace are considered important by consumers. Information on the availability of the goods in question when shopping is listed in stock and when there is a promo with limited time; provide information on the amount of stock with honesty.

5.2.2 Marketplace Service Quality Analysis

In calculating the quality of marketplace services, the formula for the value of perception or marketplace performance is used, divided by the value of expectations or consumer interests. If the value of $Q \geq 1$, then the gap in the quality of service of the company is declared good. The results of the

calculation of the quality of marketplace services obtained an average value of 0.80 with a gap value of -0.88. Based on these results, it can be said that the level of quality of marketplace services felt by consumers is not good because the average value is still below 1, and the gap value is still showing a negative value. The value of service quality in each dimension also still shows below 1, which means that each dimension of service still cannot be said to be good. Based on the calculation results, the best to not good quality value is the efficiency dimension with a value 0.80; the Privacy dimension with a value 0.82; the dimensions of system availability with a value 0.80; fulfillment dimension with a value 0.81; the contact dimension is 0.72 and the responsiveness dimension with a value 0.81; and the Compensation dimension with a value 0.78.

5.3 Analysis Importance Performance Analysis (IPA)

The IPA cartesian diagram is created by dividing the chart into four quadrants with the X axis, and the Y axis, where the X axis is the average of the market performance variable attribute scores (perceptions) and the Y axis is the average attribute score of the consumer interest variable (expectation).

1. Quadrant A (Top Priority)

   Quadrant A has a high level of importance, but in reality, the performance perceived by customers is still low and unsatisfactory. This quadrant is considered a very important factor, so the factors contained in this quadrant can be the top priority for improvements to be made by the marketplace. Based on the appearance of attributes X2, X6, X8, X11, X17, X26, X29, and X33 in the results of IPA calculations, it can be concluded that the attributes that need to be maintained in quadrant A are:

   a. Efficiency dimension: there are three of the eight attributes in this dimension appear in quadrant A. This illustrates that the efficiency dimension is a dimension that needs to be improved in the marketplace to improve consumer satisfaction. Improvements that can be made by the marketplace include the ease of consumers in using the marketplace site, a well-organized marketplace, and easy browsing the site, need to be improved so that consumers are comfortable and loyal in using the marketplace.

b. System availability dimension: there is one attribute in this dimension that is something that needs to be improved, at least in the marketplace. Improvements or improvements include providing purchase services that vary with the method of financing as well.
c. Fulfillment dimension: in this dimension, there is also one attribute that is included in quadrant A and is something that needs to be considered to be improved by the marketplace, especially in the live-streaming feature, including being explained and informed by the live host or storefront of live-streaming shopping products.
d. Responsiveness dimension: In this dimension there is also one attribute (X26) which is included in the top priority quadrant and is something that needs to be considered to be improved by the marketplace, especially in the live-streaming feature, including helping to answer questions related to what to do if the transaction is not processed.
e. Contact Dimension: In this dimension, there is one attribute of the X33 that is expected to be improved in performance, including the existence of a live host and customer service admin assistance that can answer problems or obstacles that exist immediately.
f. Compensation Dimension: The last dimension that is one of the top priorities that can be improved is that there is one X29 attribute that explains the compensation if the ordered goods do not arrive on time as informed.

If these attributes are not met, it is feared that it will cause resentment by consumers and end up with their switch to another place.

2. Quadrant B (Maintain Achievements)

This quadrant B has an equally large level of importance and performance, so it is considered important and expected that has successfully met customer expectations or expectations. This quadrant is also considered important to continue to maintain the achievements that have been achieved by the marketplace so that it does not decrease and affect consumer satisfaction and the quality of marketplace services. Based on the appearance of attributes X1, X4, X5, X7, X14, X16, X22, X23, and

X32 in the results of IPA calculations, it can be concluded that the attributes that need to be maintained in quadrant B are:

a. Efficiency dimension: there are four of the eight attributes in this dimension that appear in quadrant B, this illustrates that the efficiency dimension is an advantage in the marketplace according to consumers. The advantages of the marketplace include the ease of consumers in using the marketplace site, ease of finding what is needed, information on the live-streaming shopping marketplace according to what is provided or the products offered, as well as access and live-streaming shopping on the marketplace containing pages and good video quality needs to be maintained so that consumers are comfortable and loyal in using the marketplace.
b. Fulfillment dimension: there are two attributes in this dimension that are the advantages of the marketplace and seeking to continue to improve their achievements. Advantages include the availability of a marketplace for live-streaming shopping on the marketplace. When sending goods, it provides tracking information options and provides information periodically accompanied by couriers who can be contacted.
c. Responsiveness Dimension: in this dimension, there are also two attributes that are included in quadrant B and are the advantages of the marketplace. The advantage is to give me a clear and convenient option or explanation for the procedure for returning goods.
d. Privacy dimension: one attribute of this privacy dimension falls into quadrant B. which means that this dimension is one of the advantages of the marketplace according to consumers and must be maintained. The advantages in question are the protection of credit card and account information and the keeping of consumers' personal information confidential on other sites. It affects consumer confidence in the marketplace as a medium for business transactions.

3. Quadrant C (Low Priority)

Quadrant C is the opposite of quadrant B, where this quadrant has the same low level of importance and performance. Factors that fall within this quadrant have low satisfaction levels but are not considered too important

to customers, so they don't need to be prioritized too much by the marketplace. Based on the appearance of attributes X3, X9, X15, X21, X25, X28, and X30 in the IPA calculation results, it can be seen that only the contact dimension whose attributes do not appear in quadrant C. This is in line with the inclusion of all privacy dimension attributes in quadrant B (maintain performance). Then it is concluded that the attributes that have a low priority in quadrant C are:

a. Efficiency dimension: there is one attribute of this dimension that is a low priority, namely Live-streaming shopping on the marketplace allows you to complete transactions quickly. Although there are still complaints heard about this attribute, in reality it is one that falls into low priority.
b. System availability dimension: this dimension has one attribute that falls into quadrant C, the attribute is Live-streaming shopping on the marketplace that is not constrained by buffers or crashes after commenting or refreshing the live-streaming page.
c. Fulfillment dimension: in this dimension, there is one attribute that becomes a low priority of the marketplace, namely live-streaming shopping on the marketplace, quickly sending what has been ordered.
d. Responsiveness dimension: one of the five attributes of this dimension is a low priority of the marketplace, namely the provision of convenient options for returning goods, good handling of product returns, offering guarantees or warranties, and handling problems promptly.
e. Dimension compensation: one attribute of this dimension is a low priority for the marketplace; that is, when participating on live-streaming shopping in the marketplace, the marketplace refunds the transaction costs of goods that cannot be sent.
f. Privacy dimension: in this dimension, there is one of three attributes that appear to be a low priority of the marketplace, namely, the marketplace does not share my personal data information (address, phone number, receipt number, and others) with other sites.

4. Quadrant D (Tends to be Excessive)

   This quadrant D has a low level of importance but high performance so it is considered excessive. Marketplaces can reduce the quality improvement of attributes contained in this quadrant and can shift them to quadrant A which is prioritized for improving the quality of its services. it is concluded that the attributes that have a low priority in quadrant D are:

   a. Efficiency dimension: there is one attribute of this dimension that is a low priority, namely Live-streaming shopping on marketplaces launched and accessed in many marketplace options, in fact, this attribute is one that enters into things that tend to be excessive.
   b. System availability dimension: this dimension has one attribute that falls into quadrant D, and that attribute is The live host honestly explains its offer when live-streaming shopping in the marketplace.
   c. Fulfillment dimension: in this dimension, there is one attribute that is a feature that is quite redundant to the marketplace, namely the live host promises an accurate time in product delivery when live-streaming shopping in the marketplace.
   d. Responsiveness dimension: one of five dimension attributes that tend to be redundant to features in the marketplace, namely When shopping on live-streaming shopping in the marketplace can handle product returns well.
   e. Contact Dimension: In this dimension, there is one attribute that is expected to be maintained or not too much of a performance priority, including when shopping on live-streaming shopping in the marketplace will inform the live host who continues to customer service to contact if there are problems.
   f. Privacy dimension: in this dimension, there is one of three attributes that appear to be Quadrant D or excessive, namely Live-streaming shopping in the marketplace will protect customer shopping behavior and customer shopping history.

5.4 Analysis of Customer Journey Mapping Design Proposals

The design of the CJM proposal was carried out based on the correlation between the dimensions and attributes in the e-servqual and the phase on the

customer journey map. The proposed customer journey mapping can be seen in table 4.18. In the design, you can see some information such as demographic data (persona), stages consisting of discover, consider, purhase, wait for delivery, and receive and wear/use the product. While, the key components consist of verbatim (think), customer actions (do), pain points (stop), touchpoints, goals, ideas/opportunities and emotions. This design is carried out to find out the customer journey based on the use of live-streaming shopping in the marketplace.

From the customer journey design, it can be seen from the beginning, namely in the discover phase, namely the customer phase, starting to think about finding the right item because it's based on the selected category, finding stores that sell similar or appropriate items in live-stream shopping, visit marketplace websites with media that are usually used are Shopee, Tiktok, Tokopedia, and Lazada. The emotions felt by customers are excitement because it is expected that when searching, customers feel the ease of use of marketplace browsing and find suitable stores to continue the phase consider.

The next phase is the consider phase, which is considering. Usually, customers will watch live-streaming shopping activities considering through there are no buffering constraints that occur because the seller and also customers think about considerations related to product clarity by comparing the price of live-streaming shopping brands with non-live streams on other Marketplaces after customers think about their considerations usually customers will do something like Browse all marketplaces that have the brand and are doing live-streaming shopping, and then Make sure the goods have been paid for and get the order number according to the payment method chosen. The use of media, that is usually used is the marketplace application itself, namely Shopee, Tiktok, Tokopedia, and Lazada. Commonly, customers compare 4 marketplaces. The goal that customers want to achieve is the live host who can explain my confusion about the product customer will buy and host Live-streaming shopping that offers the cheapest product prices from the results of comparisons with other Live-streaming shopping marketplaces. The emotion that customers feel in this phase is excited because the majority of stores provide special discounts during live-streaming. However, there is a customer fear in this phase including the live host did not answer in detail when

asked about a review of the product wanted to buy and the products offered are not as varied as conventional online sales.

The purchase phase is the purchase phase, in this phase, the customer will think about whether it takes a long time to make a payment and whether the voucher code can be used at the time of payment. Then, the customer will do Make sure the goods have been paid for and get the order number according to the payment method chosen. The goal that customers want to achieve is complete transactions and payments quickly and accurately and provide information related to products that have been paid for in the form of an explanation of canceled purchases, receipt numbers, and others. So at this stage, there are several suggestions given, namely, provide varied types of payments with clear procedures for each payment method and perform system maintenance so that the checkout process is fast and smooth. The emotions felt in this phase are unhappy because in this phase is the toughest phase that customers have to go through, where customers have to spend their money to buy goods offered by Host Live.

The wait-for-delivery phase is the phase of waiting for the goods to arrive to the customer, in this phase usually the customer will think about whether the delivery will last a long time, whether the goods delivered will arrive according to the time that has been informed and the goods are in accordance with expectations. Then, the customer will check the receipt number to find out the progress of my delivery of goods on a regular basis. However, there are some obstacles that are usually felt by customers, namely the feeling that the ordered item will arrive late and there is no update regarding the delivery of the product on the system. The emotions felt by customers in this phase are excitement because the goods will arrive soon and feel excited because customers can track their orders with the receipt number obtained.

Fase receive and wear/use product biasanya pada fase ini pelanggan akan berpikir the item I ordered arrived quickly and without defects, dan the item I ordered met my expectations. dengan tujuan get the goods according to my order, the item arrived without errors and defects, dan having the convenience of complaining to the seller's shop about the goods you want to return because of an error in the shipping or packaging process. Usually the media used by customers in this phase are marketplace notifications that the goods have

arrived and whatsapp. However, usually there are obstacles that are felt by customers such as items do not match (function, physical, etc.) my expectations, and there is a mistake in the size, color, and type of goods shipped. Emosi yang dirasakan oleh pelanggan pada fase ini adalah excited karena menerima barang sesuai dengan ekspektasi. Namun ada ada beberapa saran pada tahap ini yaitu extra safe packaging so that the goods are protected, dan return of goods to be replaced according to the order can be done quickly, easily, and safely.

5.5 Analysis of Proposed User Interface Design

The design of a proposed user interface in the case of live-streaming shopping is based on the results of the e-servqual analysis with its attributes that need to be improved in the analysis that has a correlation to the customer journey maps phase. Researchers provided three interface proposals, including categorizing live-streaming shopping stores, payment variations, and customer service interfaces.

The creation of an interface that starts with the homepage is related to the discovery phase where customers think about live-streaming shopping in a well-organized marketplace supported by several e-servqual attributes. Creating a live shopping store with categorization can make it easier for customers to search according to their category.

The proposal in the form of payment variations was made because it answered the X11 attribute, namely live-streaming shopping on the marketplace providing purchase services that vary with the method of payment as well, by providing variations later when making payments customers do not feel limitations, and can also be managed to become the main payment method.

The last is the answer to a contact dimension where customers want convenience according to the X33 attributes when shopping on live-streaming shopping in the marketplace; there is a live host and customer service admin assistance that can answer existing problems or obstacles immediately, then customers can go through the homepage to immediately see orders that want to be on the return.

An important suggestion is also to look at the consideration phase, where the customer watches in more detail about the items to be purchased. Therefore

an interface proposal is given by adding a product cart and containing a complete selection of product categories to answer a top priority on the X17 attribute, with an explanation of the amount of stock, sold and the availability of the products offered.

Of course, it can't be separated from the phase when the customer has difficulty, and the live-host cannot answer in detail, so an admin is needed who is also active during the live-streaming. This attribute is similar to X33. The need for a contact person in each store to have services that are in accordance with customer interests.

CHAPTER VI
CONCLUSIONS AND SUGGESTIONS

This chapter contains conclusions that answer the formulation of the problem and prove existing hypotheses, and contains suggestions and recommendations for further research based on research that has been carried out.

6.1 Conclusion

1. The design of customer journey mapping in this study was carried out with the help of customer information in the use of a live-streaming shopping marketplace feature so that an optimal CJM design was obtained intended for marketplaces with live-streaming shopping features. CJM design uses phase and key components. With phases that include discover, consider, purchasing, wait for delivery, and receiving and wear/use the product. The key components used are verbatim (think), customer actions (do), pain points (stop), goals, touchpoints, emotions, and ideas /opportunities. From the CJM design, it shows how the customer journey of the customer journey is optimal for similar industry players and can be improved through recommendations provided through ideas/opportunities so that similar industries can provide a more optimal customer experience and continue to improve their features to become one of the optimal media marketing.
2. The top priority (quadrant A) of improving and improving service quality is that attribute three of eight are dimensions of efficiency, namely X6 about Live-streaming shopping on the marketplace is easy to use and understand how it looks, X2 about The live-streaming shopping feature can make it easier to explore live-streaming according to its category, X8 Live-streaming shopping on a well-organized marketplace, then there is a fulfilment attribute with attribute number X17 about The stock of goods as described and informed by the live host or storefront of live-streaming shopping products on the marketplace, as well as the responsiveness with the attribute number X26 explaining about Live-streaming shopping in the marketplace helps in answering questions related to what to do if my transactions are not processed, System availability on X11 is a live-streaming shopping on the marketplace providing purchase services that vary with the method of payment as well, with the X33 contact attribute about customer service admin assistance that can answer existing problems

or obstacles immediately, and compensation on attribute X29 if goods do not arrive on time which is informed of the things described based on the results of the calculation of the value of importance performance analysis.

3. The user interface provided is based on what needs improvement according to the results of the Importance performance analysis and can also be correlated with customer journey maps because the interface is done by looking at the phases carried out by customers. In this study, five things that can be recommended for improvement are categorization when you want to determine the live stream shopping store, then payment, and after that, the return of goods, product cart, and customer service. Providing recommendations through the homepage is carried out because of the efficiency dimensions provided by the marketplace for its customers.

6.2 Suggestion

1. The live-streaming shopping feature must be able to consistently improve the attributes that are the top priority and consistently maintain the performance that has made consumers feel quite satisfied. The live-streaming shopping feature on the marketplace is scheduled to always provide feature polls on customer satisfaction and can also improve the appearance of live-streaming shopping by category as well as improved customer services.
2. In collecting data, the next customer journey can use other data collection media besides questionnaires, namely FGD or interviews with only a few prospective respondents, so that they can gain insight through practice and conduct discussions so that the answers obtained are more advanced and interviews so that the answers obtained are deeper and interaction occurs.
3. For further research, it is recommended to expand the addition of samples so that the research results are more representative, especially questionnaires in the form of online forms, use or add different analytical techniques to see the quality of marketplace services. It can provide a correlation between the front operation of a live-streaming shopping and the back operation.

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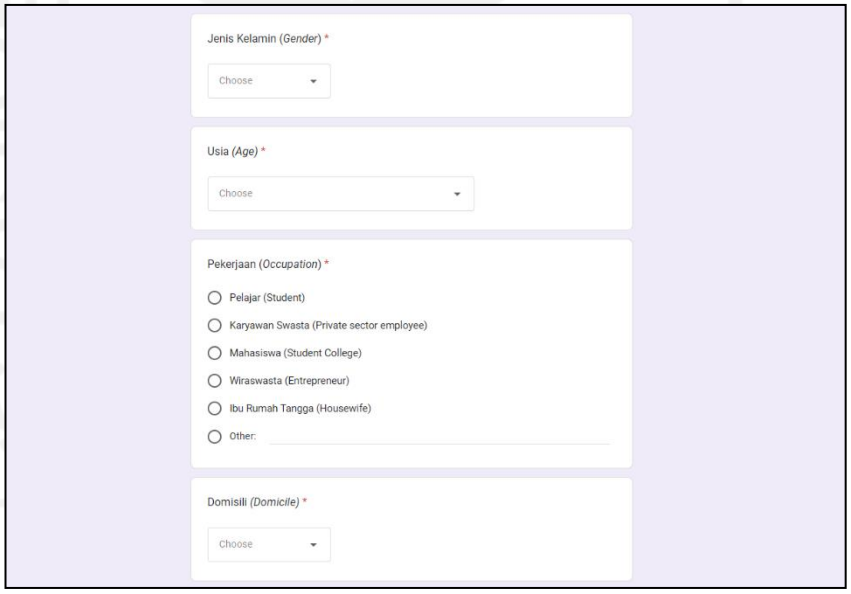
APPENDIX

A. Customer Journey Maps Questionnaire

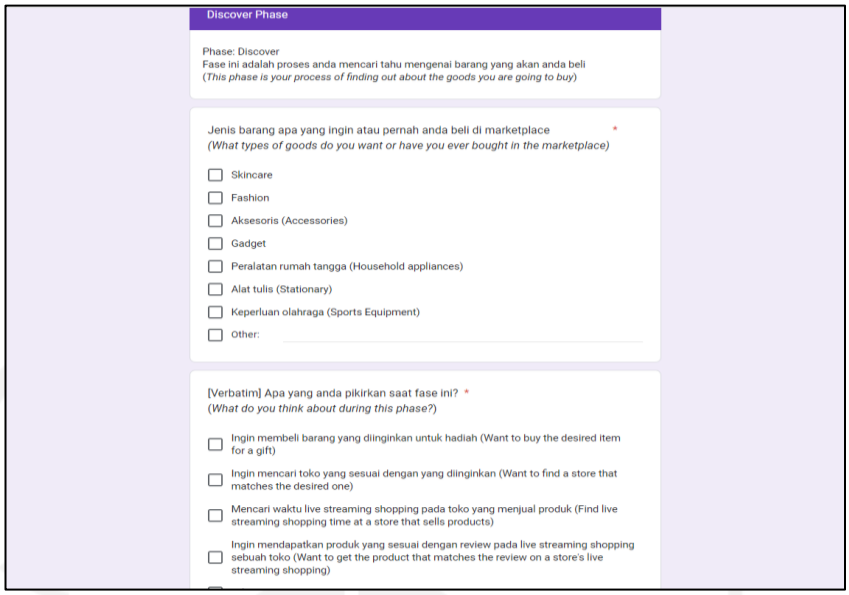
Phase	Key Component	Question
Discover	Verbatim (Think)	What do you think about during this phase?
	Customer Actions	Before you buy the items, you want through live-streaming shopping, what are the actions you usually do?
	Pain Points	What are some doubts or doubts that you usually feel before buying product on the use of live-streaming shopping?
	Goals	What are your goals for this phase?
	Touchpoint	What media do you usually use in this phase?
		What feelings or emotions do you feel in this phase?
	Ideas/Opportunities	What are your right inputs or expectations for this phase based on how you feel or have never felt?
Consider	Verbatim (Think)	What usually makes you consider / do in consideration of buying product during live-streaming shopping on Marketplace?
	Customer Actions	In this consideration phase, how do you usually determine which live stream in the marketplace you are going to buy product?
	Pain Points	What are some doubts or doubts that you usually feel before buying product on the use of live-streaming shopping?
	Goals	What are your goals for this phase?
	Touchpoint	In determining where to live-stream shopping in a marketplace where you interact and shop, what marketplaces do you usually visit?
		What emotions do you feel in this phase
	Ideas/Opportunities	What are your right inputs or expectations for this phase based on how you feel or have never felt?
Purchase	Verbatim (Think)	What do you usually think about during this phase?
	Customer Action	What are you doing in this phase?
	Pain Points	What are the obstacles that exist in this process?
	Goals	What are your goals in this phase?
	Touchpoint	What do you usually make purchases of product through?
		What feelings or emotions do you feel in this phase?
	Ideas / Opportunity	What are your right inputs or expectations for this phase based on how you feel?
Wait For Delivery	Verbatim (Think)	What do you think of this process?
	Customers Action	In this process what do you usually do?

Phase	Key Component	Question
	Pain Points	What are the obstacles you usually feel in this phase?
	Goals	What are your goals in this phase?
	Touchpoint	Usually where do you check the receipt number?
		What feelings or emotions do you feel in this phase?
	Ideas/Opportunity	What are your right inputs or expectations for this phase based on how you feel?
Receive and Wear/Use the Product	Verbatim (Think)	What do you usually think about in this phase?
	Customer Action	What are you doing in this phase?
	Pain Point	What are the obstacles you usually feel during this phase?
	Goals	What are your goals in this phase?
	Touchpoint	Usually through what media do you find out that your order has arrived?
		What feelings or emotions do you feel in this phase?
	Ideas / Opportunities	What are your right inputs or expectations for this phase based on how you feel?

B. Customer journey map questionnaire **demographic** questions



C. Customer journey map questionnaire **Discover** phase questions



Discover Phase

Phase: Discover
Fase ini adalah proses anda mencari tahu mengenai barang yang akan anda beli
(*This phase is your process of finding out about the goods you are going to buy*)

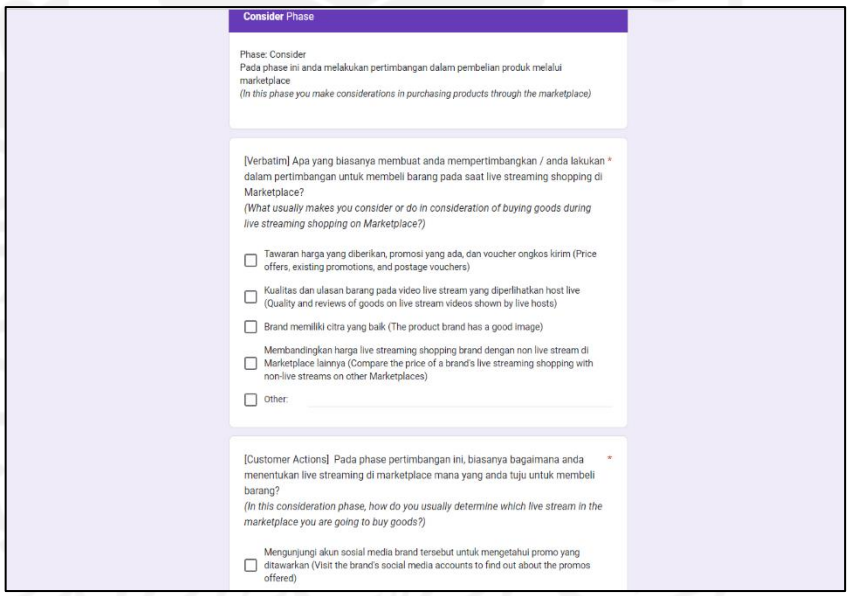
Jenis barang apa yang ingin atau pernah anda beli di marketplace *
(What types of goods do you want or have you ever bought in the marketplace)

- [ ] Skincare
- [ ] Fashion
- [ ] Aksesoris (Accessories)
- [ ] Gadget
- [ ] Peralatan rumah tangga (Household appliances)
- [ ] Alat tulis (Stationary)
- [ ] Keperluan olahraga (Sports Equipment)
- [ ] Other:

[Verbatim] Apa yang anda pikirkan saat fase ini? *
(What do you think about during this phase?)

- [ ] Ingin membeli barang yang diinginkan untuk hadiah (Want to buy the desired item for a gift)
- [ ] Ingin mencari toko yang sesuai dengan yang diinginkan (Want to find a store that matches the desired one)
- [ ] Mencari waktu live streaming shopping pada toko yang menjual produk (Find live streaming shopping time at a store that sells products)
- [ ] Ingin mendapatkan produk yang sesuai dengan review pada live streaming shopping sebuah toko (Want to get the product that matches the review on a store's live streaming shopping)

D. Customer journey map questionnaire **Consider** phase questions



Consider Phase

Phase: Consider
Pada phase ini anda melakukan pertimbangan dalam pembelian produk melalui marketplace
(In this phase you make considerations in purchasing products through the marketplace)

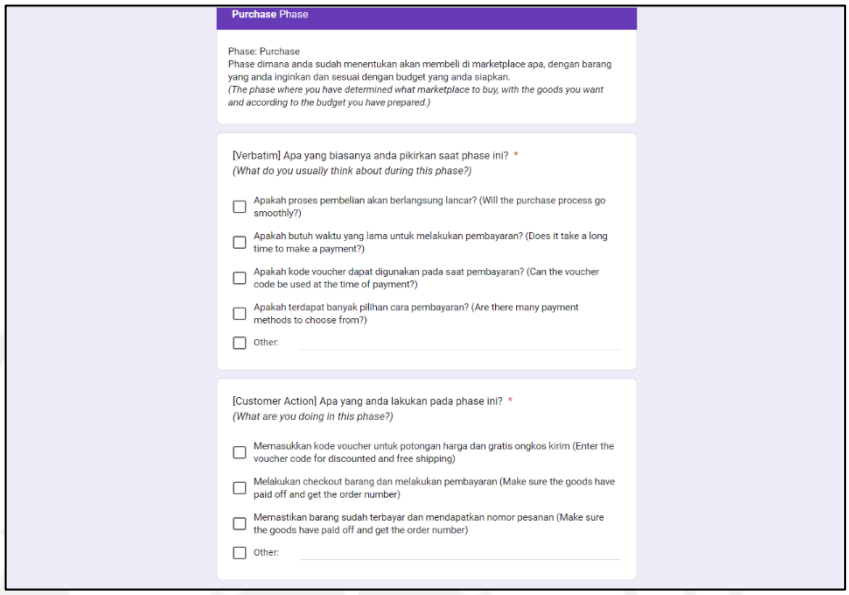
[Verbatim] Apa yang biasanya membuat anda mempertimbangkan / anda lakukan dalam pertimbangan untuk membeli barang pada saat live streaming shopping di Marketplace? *
(What usually makes you consider or do in consideration of buying goods during live streaming shopping on Marketplace?)

- [ ] Tawaran harga yang diberikan, promosi yang ada, dan voucher ongkos kirim (Price offers, existing promotions, and postage vouchers)
- [ ] Kualitas dan ulasan barang pada video live stream yang diperlihatkan host live (Quality and reviews of goods on live stream videos shown by live hosts)
- [ ] Brand memiliki citra yang baik (The product brand has a good image)
- [ ] Membandingkan harga live streaming shopping brand dengan non live stream di Marketplace lainnya (Compare the price of a brand's live streaming shopping with non-live streams on other Marketplaces)
- [ ] Other:

[Customer Actions] Pada phase pertimbangan ini, biasanya bagaimana anda menentukan live streaming di marketplace mana yang anda tuju untuk membeli barang? *
(In this consideration phase, how do you usually determine which live stream in the marketplace you are going to buy goods?)

- [ ] Mengunjungi akun sosial media brand tersebut untuk mengetahui promo yang ditawarkan (Visit the brand's social media accounts to find out about the promos offered)

E. Customer journey map questionnaire **Purchase** phase questions



Purchase Phase

Phase: Purchase
Phase dimana anda sudah menentukan akan membeli di marketplace apa, dengan barang yang anda inginkan dan sesuai dengan budget yang anda siapkan.
(The phase where you have determined what marketplace to buy, with the goods you want and according to the budget you have prepared.)

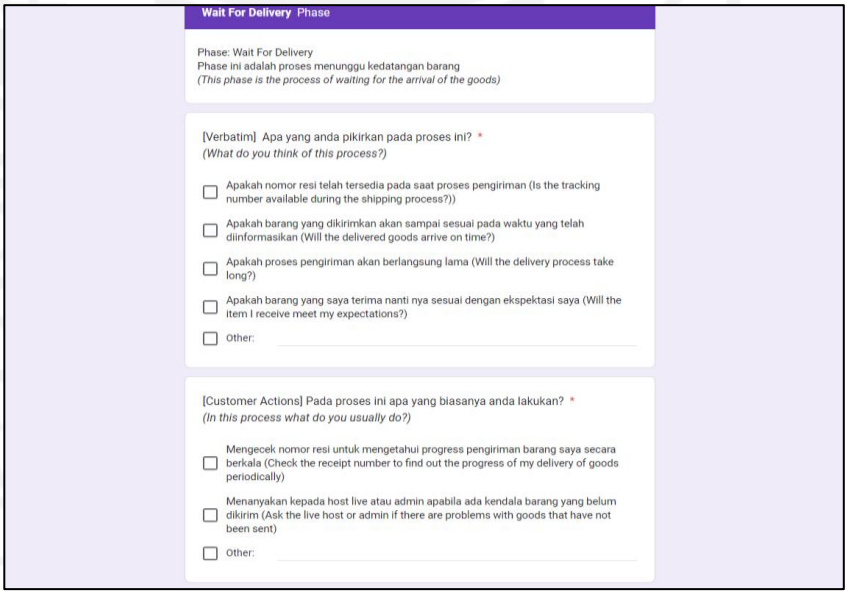
[Verbatim] Apa yang biasanya anda pikirkan saat phase ini? *
(What do you usually think about during this phase?)

- [ ] Apakah proses pembelian akan berlangsung lancar? (Will the purchase process go smoothly?)
- [ ] Apakah butuh waktu yang lama untuk melakukan pembayaran? (Does it take a long time to make a payment?)
- [ ] Apakah kode voucher dapat digunakan pada saat pembayaran? (Can the voucher code be used at the time of payment?)
- [ ] Apakah terdapat banyak pilihan cara pembayaran? (Are there many payment methods to choose from?)
- [ ] Other:

[Customer Action] Apa yang anda lakukan pada phase ini? *
(What are you doing in this phase?)

- [ ] Memasukkan kode voucher untuk potongan harga dan gratis ongkos kirim (Enter the voucher code for discounted and free shipping)
- [ ] Melakukan checkout barang dan melakukan pembayaran (Make sure the goods have paid off and get the order number)
- [ ] Memastikan barang sudah terbayar dan mendapatkan nomor pesanan (Make sure the goods have paid off and get the order number)
- [ ] Other:

F. Customer journey map questionnaire **Wait for Delivery** phase questions



Wait For Delivery Phase

Phase: Wait For Delivery
Phase ini adalah proses menunggu kedatangan barang
(This phase is the process of waiting for the arrival of the goods)

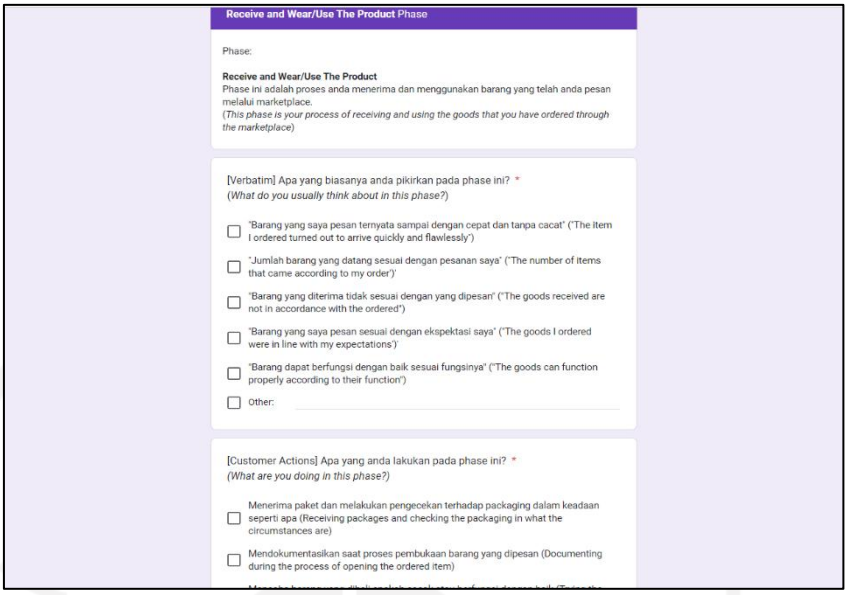
[Verbatim] Apa yang anda pikirkan pada proses ini? *
(What do you think of this process?)

- [ ] Apakah nomor resi telah tersedia pada saat proses pengiriman (Is the tracking number available during the shipping process?))
- [ ] Apakah barang yang dikirimkan akan sampai sesuai pada waktu yang telah diinformasikan (Will the delivered goods arrive on time?)
- [ ] Apakah proses pengiriman akan berlangsung lama (Will the delivery process take long?)
- [ ] Apakah barang yang saya terima nanti nya sesuai dengan ekspektasi saya (Will the Item I receive meet my expectations?)
- [ ] Other:

[Customer Actions] Pada proses ini apa yang biasanya anda lakukan? *
(In this process what do you usually do?)

- [ ] Mengecek nomor resi untuk mengetahui progress pengiriman barang saya secara berkala (Check the receipt number to find out the progress of my delivery of goods periodically)
- [ ] Menanyakan kepada host live atau admin apabila ada kendala barang yang belum dikirim (Ask the live host or admin if there are problems with goods that have not been sent)
- [ ] Other:

G. Customer journey map questionnaire **Wear/Use the product** phase questions



Receive and Wear/Use The Product Phase

Phase:

Receive and Wear/Use The Product
Phase ini adalah proses anda menerima dan menggunakan barang yang telah anda pesan melalui marketplace.
(This phase is your process of receiving and using the goods that you have ordered through the marketplace)

[Verbatim] Apa yang biasanya anda pikirkan pada phase ini? *
(What do you usually think about in this phase?)

- [ ] "Barang yang saya pesan ternyata sampai dengan cepat dan tanpa cacat" ("The item I ordered turned out to arrive quickly and flawlessly")
- [ ] "Jumlah barang yang datang sesuai dengan pesanan saya" ("The number of items that came according to my order")
- [ ] "Barang yang diterima tidak sesuai dengan yang dipesan" ("The goods received are not in accordance with the ordered")
- [ ] "Barang yang saya pesan sesuai dengan ekspektasi saya" ("The goods I ordered were in line with my expectations")
- [ ] "Barang dapat berfungsi dengan baik sesuai fungsinya" ("The goods can function properly according to their function")
- [ ] Other:

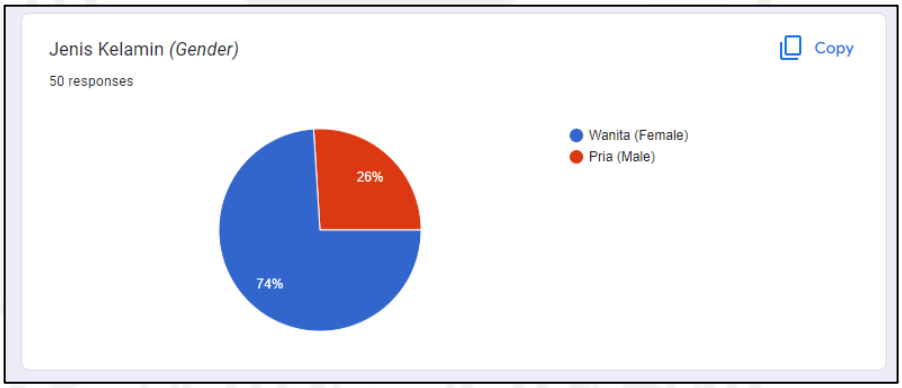
[Customer Actions] Apa yang anda lakukan pada phase ini? *
(What are you doing in this phase?)

- [ ] Menerima paket dan melakukan pengecekan terhadap packaging dalam keadaan seperti apa (Receiving packages and checking the packaging in what the circumstances are)
- [ ] Mendokumentasikan saat proses pembukaan barang yang dipesan (Documenting during the process of opening the ordered item)

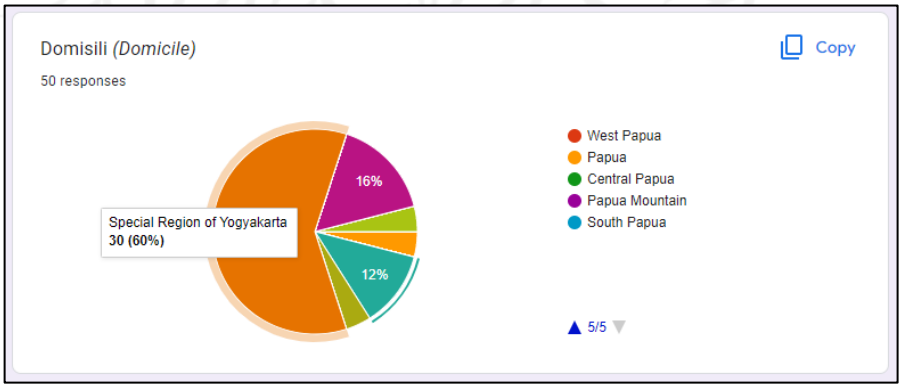
H. **Google Form Link** of Customer journey map questionnaire

https://bit.ly/CJM_LiveShopping

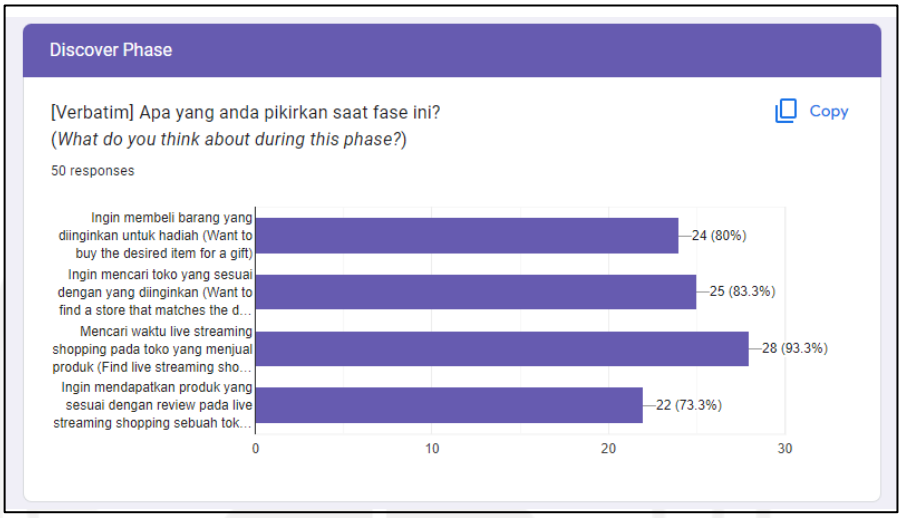
I. **Gender Result** of Customer journey map questionnaire



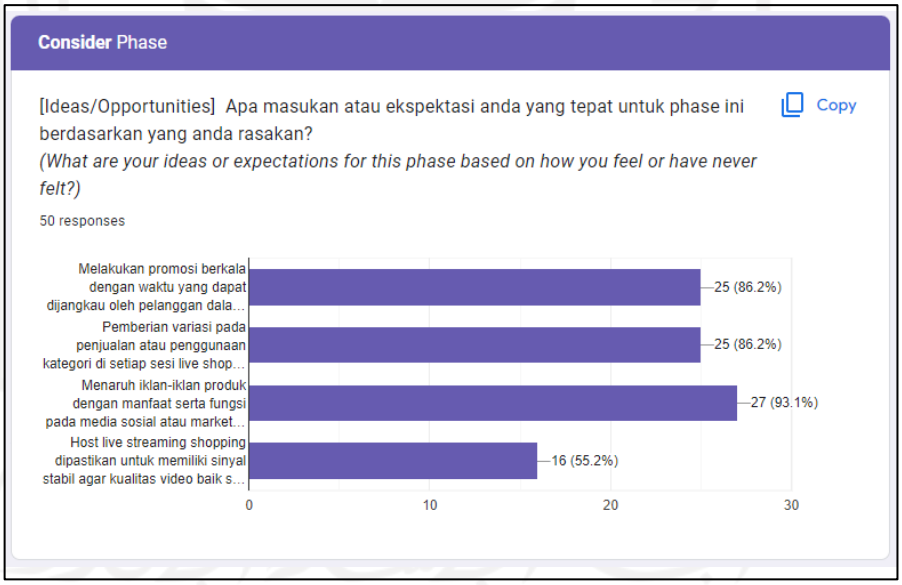
J. **Domicile Result** of Customer journey map questionnaire



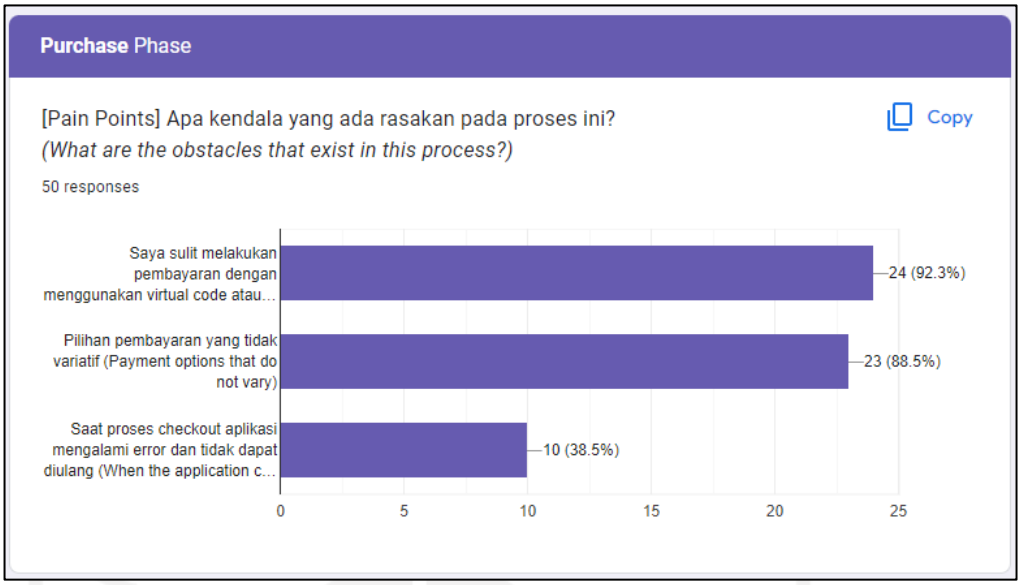
K. **Verbatim** in discover phase result of Customer journey map questionnaire



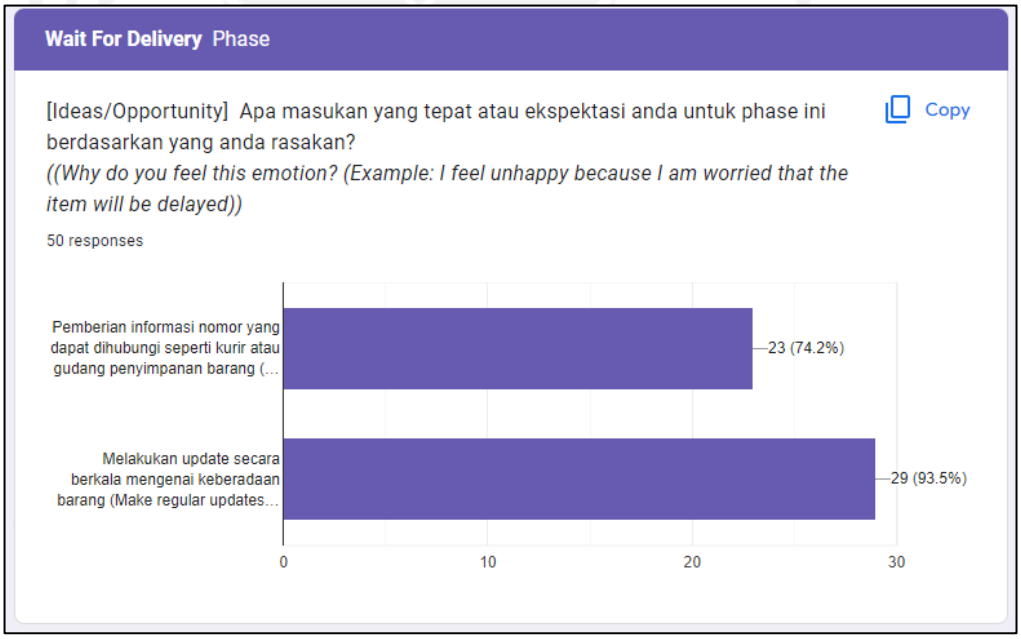
L. **Ideas/Opportunities** in consider phase result of Customer journey map questionnaire



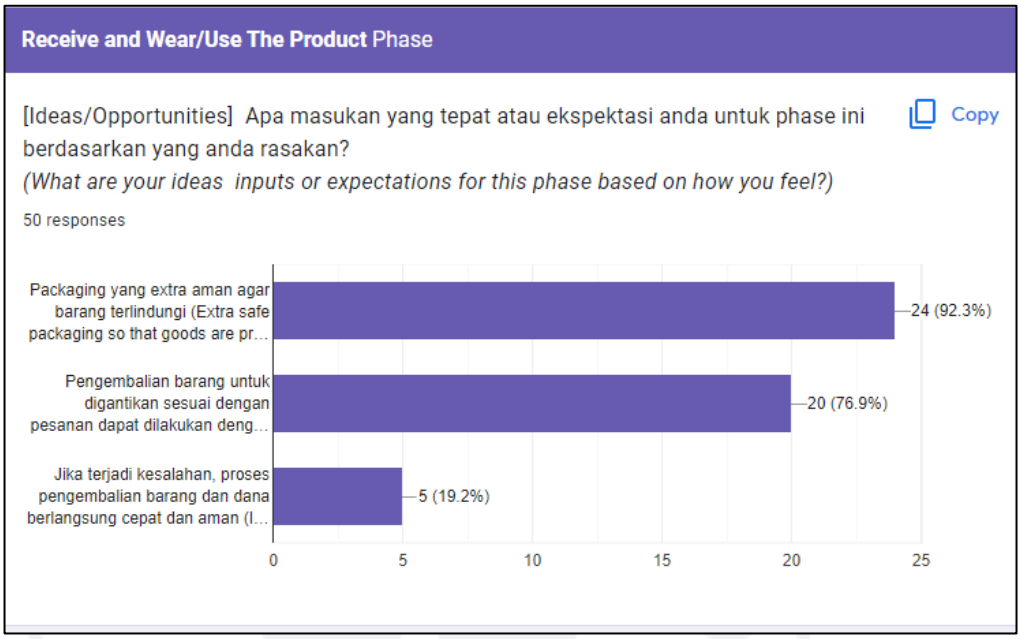
M. **Pain points** in purchase phase result of Customer journey map questionnaire



N. **Ideas/Opportunities** in wait for delivery result phase result of Customer journey map questionnaire



O. **Ideas/Opportunities** in **Receive product** result phase result of Customer journey map questionnaire



P. Result of Customer journey map questionnaire

Link : https://docs.google.com/spreadsheets/d/1d1yo1n-cCj5-U6WI05uFlL7BOzZmkRb1tHTemiPm_KU/edit#gid=1870814238

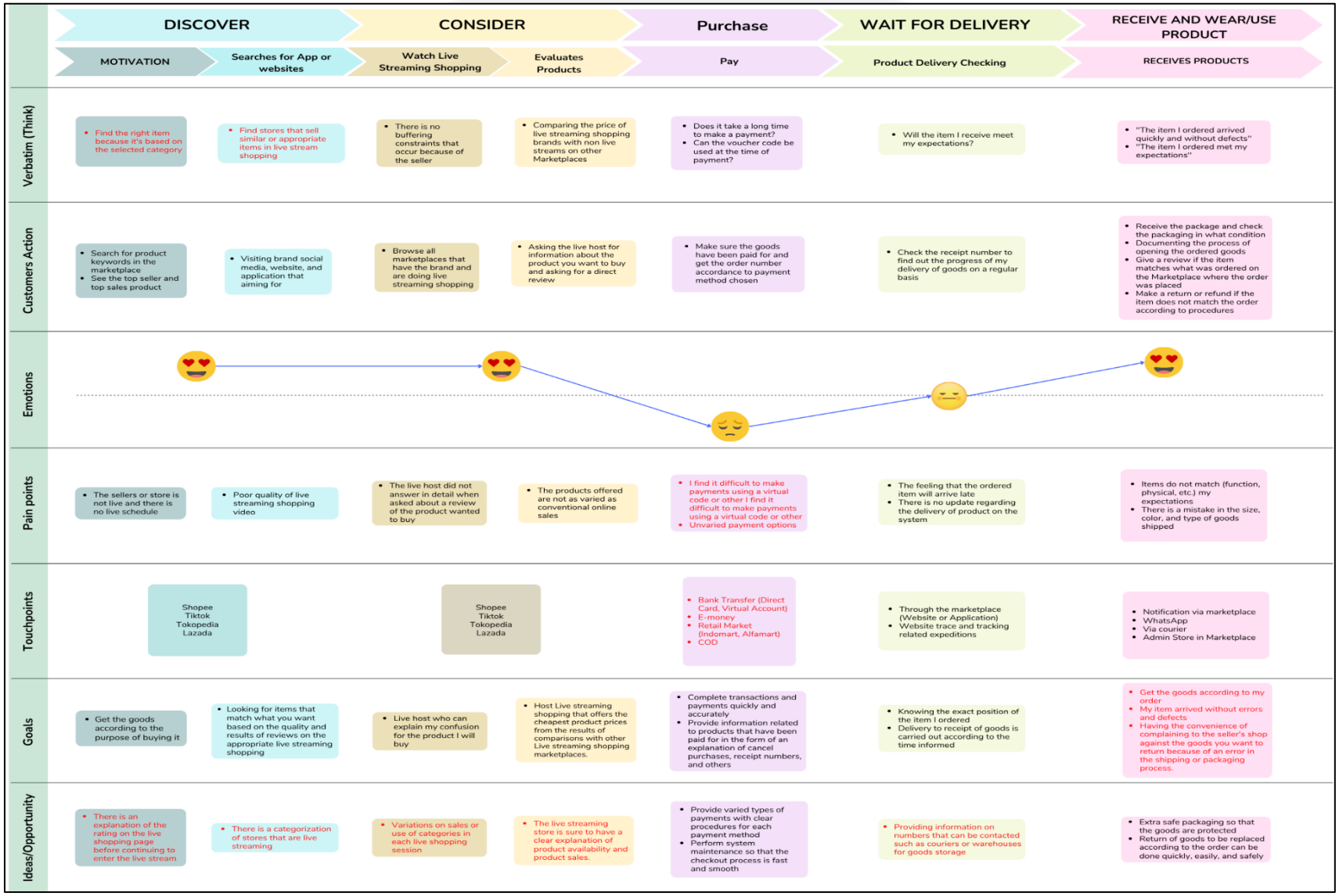
Q. **Initial** Customer Journey Mapping

Persona

-**64%** of customers work as **Student College**, **16%** work as **employees**, **14%** work as **student**, and **6%** work as **housewives**
-**37** people are **female**, 13 people are **male**
-The **average** age is **21-25 years**
-The intensity of shopping in the marketplace as much as **2-4 times** there are **70%** of customers, **8%** of customers as much as **1 time**, **16%** of customers as much as **5-7 times**, and **6%** of customers **>7 times**
Long shopping using marketplace **62%** for **less than 1 year**, **38%** for **more than 2 years**

	DISCOVER		CONSIDER		Purchase	WAIT FOR DELIVERY	RECEIVE AND WEAR/USE PRODUCT
	MOTIVATION	Searches for App or websites	Watch Live Streaming Shopping	Evaluates Products	Pay	Product Delivery Checking	RECEIVES PRODUCTS
Verbatim (Think)	• Buy the desired item for a gift • Find a shop that matches what you want	• Looking for live streaming shopping time at stores that sell products • Get products that match the reviews on a shop's live streaming shopping	• Quality and product reviews on live stream videos shown by live hosts • Offered prices, existing promotions, and postage vouchers	• The product brand has a good image • Comparing the price of live streaming shopping brands with non live streams on other Marketplaces	• Will the buying process go smoothly? • Does it take a long time to make a payment? • Can the voucher code be used at the time of payment? • Are there multiple payment options?	• Is the receipt number available during the delivery process • Will the delivered goods arrive on time? • Will the delivery process take long? • Will the item I receive meet my expectations?	• "The item I ordered arrived quickly and without defects" • "The number of items that came according to my order" • Item received does not match what was ordered • "The item I ordered met my expectations" • The item is working properly according to its function
Customers Action	• Search for product keywords in the marketplace • See the top seller for the product or shop that you are aiming for	• Looking at social media for the type of item you are going to buy • Visiting the website or marketplace application that you are aiming for	• Visit the brand's social media accounts to find out the promos on offer • Browse all marketplaces that have the brand and are doing live streaming shopping	• Asking the live host for information about the product you want to buy and asking for a direct review • Compare prices, discounts, and postage vouchers on each brand's shopping live stream in each marketplace	• Enter voucher code for discount and free shipping • Check out goods and make payments • Make sure the goods have been paid for and get the order number	• Check the receipt number to find out the progress of my delivery of goods on a regular basis • Ask the live host or admin if there are problems with the goods that have not been sent	• Receive the package and check the packaging in what condition • Documenting the process of opening the ordered goods • Try the purchased item whether it fits or works well • Give a review if the item matches what was ordered on the Marketplace where the order was placed • Make a return or refund if the item does not match the order
Emotions	😑	😍		😞	😑		😍
Pain points	• A shop place to do live streaming shopping shopping only in certain marketplaces • Admins who do live streaming shopping are not clear in product explanations or reviews	• Poor quality of live streaming shopping video • It's hard to find a brand/store that has a good image and does live streaming shopping	• Some live streaming shopping pages have unexpected promos and are usually the same as conventional online sales • The live host did not answer in detail when asked about a review of the product wanted to buy	• The products offered are not as varied as conventional online sales • Products that do not match the picture in the storefront when reviewed by the live host.	• I find it difficult to make payments using a virtual code or other I find it difficult to make payments using a virtual code or other • Unvaried payment options • During the checkout process the application experienced an error and could not be repeated	• The feeling that the item I ordered will arrive late • There is no update regarding the delivery of goods on the system • Feelings about the safety of goods in shipping • Feelings about the completeness of the ordered goods during the delivery process	• Items do not match (function, physical, etc.) my expectations • There is a mistake in the size, color, and type of goods shipped • Damage to the goods delivered
Touchpoints	Shopee Tiktok Tokopedia Lazada		Shopee Tiktok Tokopedia Lazada		Bank Transfer E-money	• Through the marketplace (Website or Application) • Website trace and tracking related expeditions	• Notification via marketplace • WhatsApp • Via courier
Goals	• Get the goods according to the purpose of buying it • Get the items you want with the many promos on offer	• Looking for items that match what you want based on the quality and results of reviews on the appropriate live streaming shopping • Look for brands/stores that have high quality live streaming shopping videos.	• Host Live streaming shopping on Marketplace that has attractive discount vouchers for every session • Live host who can explain my confusion for the product I will buy	• The products offered have the appropriate quality from the results of the reviews • Host Live streaming shopping that offers the cheapest product prices from the results of comparisons with other Live streaming shopping marketplaces.	• Complete transactions and payments quickly and accurately • Get free shipping • Get and be able to use discount vouchers before payment	• Knowing the exact position of the item I ordered • Delivery to receipt of goods is carried out according to the time informed	• Get the goods according to my order • My item arrived without errors and defects
Ideas/Opportunity	• There is an explanation of the rating on the live shopping page before continuing to enter the live stream • Can provide explanations made by influencers (affiliates) during live streaming shopping	• Added a reminder feature that can be linked to the smartphone calendar • Giving the category of stores that are doing live streaming shopping	• Conduct periodic promotions with a time that can be reached by customers on a daily basis. • Variations on sales or use of categories in each live shopping session	• Placing product advertisements with benefits and functions on social media or marketplace banners • Live streaming shopping hosts are ensured to have a stable signal so that the video quality is good and is able to explain the product clearly.	• Provide varied types of payments with clear procedures for each payment method • Perform system maintenance so that the checkout process is fast and smooth • Allow sufficient time for the limit in payment • Provide a recapitulation of the goods to be paid and details of the voucher used	• Providing information on numbers that can be contacted such as couriers or warehouses for goods storage • Doing regular updates regarding the existence of goods	• Extra safe packaging so that the goods are protected • Return of goods to be replaced according to the order can be done quickly, easily, and safely • If something goes wrong, the process of returning goods and funds is fast and safe

R. **Recommendation** Customer Journey Mapping



S. Electronic Service Quality Questionnaire

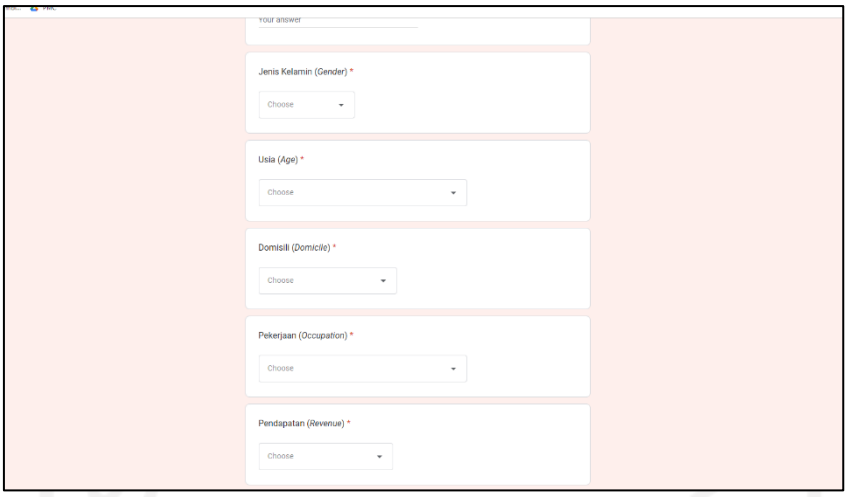
No	Dimensions of E-Servqual	Research attributes	
1	**Efficiency**	1	The live-streaming shopping feature on the marketplace makes it easy for me to find what I need
		2	The live-streaming shopping feature can make it easier to explore live streams according to their categories
		3	Live-streaming shopping on the marketplace allows you to complete transactions quickly
		4	Accessing live-streaming shopping information on the marketplace is regulated according to the direction
		5	Live-streaming shopping on the marketplace contains pages and good video quality
		6	Live-streaming shopping on the marketplace is easy to use and understand how it looks
		7	Live-streaming shopping on the marketplace is easy to access quickly and appropriately
		8	Live-streaming shopping marketplace on a well-organized
2	**System Availability**	9	Live-streaming shopping on the marketplace makes transactions according to the choice of method
		10	Live-streaming shopping on marketplaces launched and accessed in many marketplace options

No	Dimensions of E-Servqual	Research attributes	
		11	Live-streaming shopping on the marketplace provides a variety of purchase services with its delivery methods as well
		12	Live-streaming shopping on the marketplace is not constrained by buffers or freezes after commenting or refreshing the live-streaming page
3	**Fulfillment**	13	Admin of the host of live-streaming shopping on the marketplace provides information on the estimated time the product will be received
		14	Live-streaming shopping on the marketplace provides regular information along with couriers who can be contacted
		15	Live-streaming shopping on the marketplace quickly sends me what I've ordered
		16	Live-streaming shopping on the marketplace sends product that match what I ordered
		17	Stock of product as described and informed by the live host or storefront of live-streaming shopping products on the marketplace
		18	Live hosts honestly explain their offerings when live-streaming shopping on the marketplace

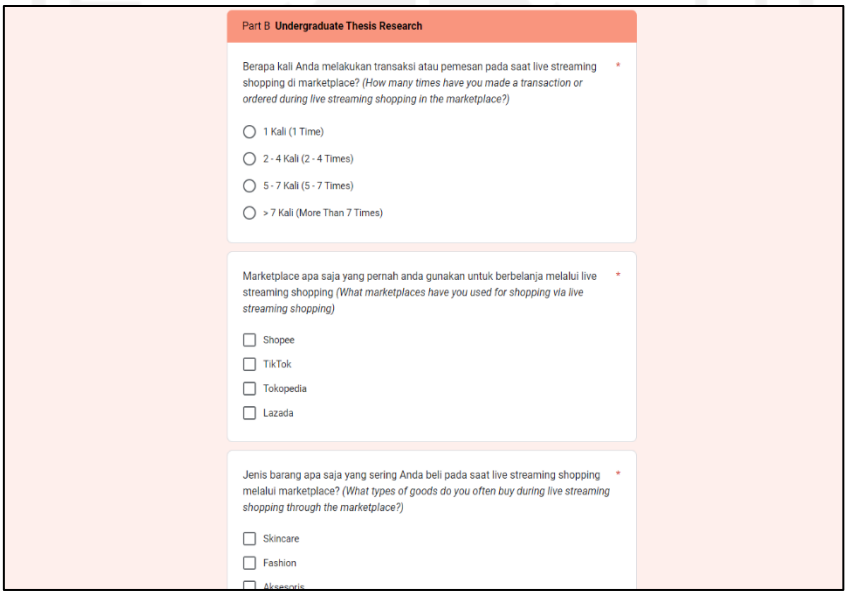
No	Dimensions of E-Servqual	Research attributes	
		19	Live hosts promise accurate time in product delivery at the time of live-streaming shopping in the marketplace
4	**Privacy**	20	Live-streaming shopping in the marketplace protects customer shopping behavior and customer shopping history
		21	Live-streaming shopping in the marketplace does not share my personal data information (address, phone number, receipt number, and others) with other sites
		22	Live-streaming shopping in the marketplace protects information about credit cards, accounts and more
5	**Responsiveness**	23	Live-streaming shopping on the marketplace gives me a clear and convenient option or explanation for the procedure in returning product
		24	When shopping on live-streaming shopping in the marketplace can handle product returns well
		25	Live-streaming shopping in the marketplace offers a guarantee and guarantee for its products
		26	Live-streaming shopping in the marketplace helps in answering questions related to what to do if my transaction is not processed
		27	Live-streaming shopping in the marketplace addresses issues immediately

No	Dimensions of E-Servqual	Research attributes	
6	**Compensation**	28	Live-streaming shopping in the marketplace compensates for the problems caused
		29	Live-streaming shopping in the marketplace provides compensation if the product I ordered did not arrive on time informed
		30	When shopping on live-streaming shopping in the marketplace, the marketplace refunds the transaction fee for product that cannot be sent
7	**Contact**	31	Live-streaming shopping in the marketplace provides compensation if the product I ordered did not arrive on time informed
		32	When we shopping on live-streaming shopping in marketplaces customer and host live yang interactive deep do question and answers.
		33	When shopping on live-streaming shopping in the marketplace there is a live host and customer service admin assistance that can answer existing problems or obstacles immediately

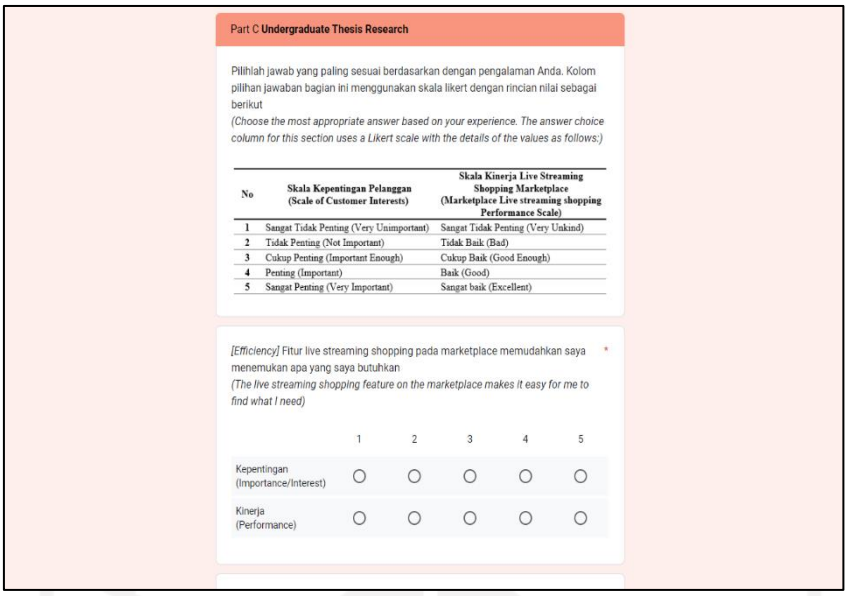
T. Electronic Service Quality Questionnaire **Demographic** questions



U. Electronic Service Quality Questionnaire **Customer usage information** questions



V. Electronic Service Quality Questionnaire **Dimensions** questions



Part C **Undergraduate Thesis Research**

Pilihlah jawab yang paling sesuai berdasarkan dengan pengalaman Anda. Kolom pilihan jawaban bagian ini menggunakan skala likert dengan rincian nilai sebagai berikut

(Choose the most appropriate answer based on your experience. The answer choice column for this section uses a Likert scale with the details of the values as follows:)

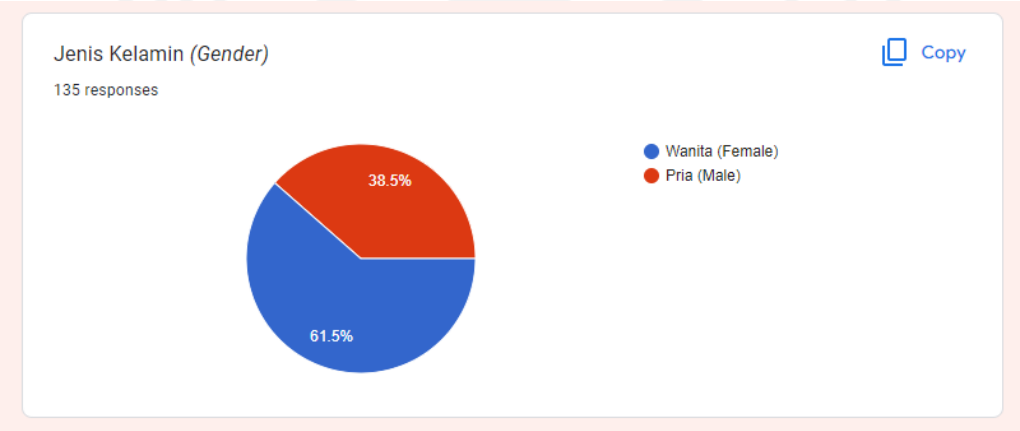
No	Skala Kepentingan Pelanggan (Scale of Customer Interests)	Skala Kinerja Live Streaming Shopping Marketplace (Marketplace Live streaming shopping Performance Scale)
1	Sangat Tidak Penting (Very Unimportant)	Sangat Tidak Penting (Very Unkind)
2	Tidak Penting (Not Important)	Tidak Baik (Bad)
3	Cukup Penting (Important Enough)	Cukup Baik (Good Enough)
4	Penting (Important)	Baik (Good)
5	Sangat Penting (Very Important)	Sangat baik (Excellent)

[Efficiency] Fitur live streaming shopping pada marketplace memudahkan saya menemukan apa yang saya butuhkan *

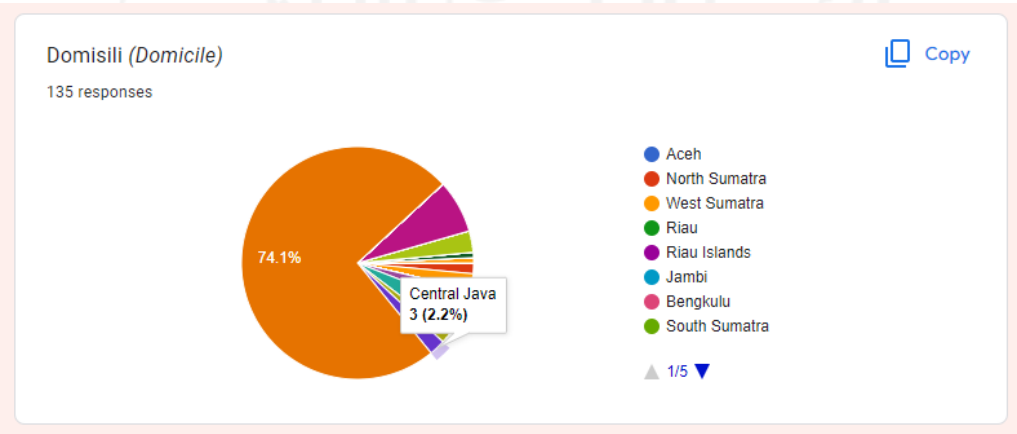
(The live streaming shopping feature on the marketplace makes it easy for me to find what I need)

	1	2	3	4	5
Kepentingan (Importance/Interest)	○	○	○	○	○
Kinerja (Performance)	○	○	○	○	○

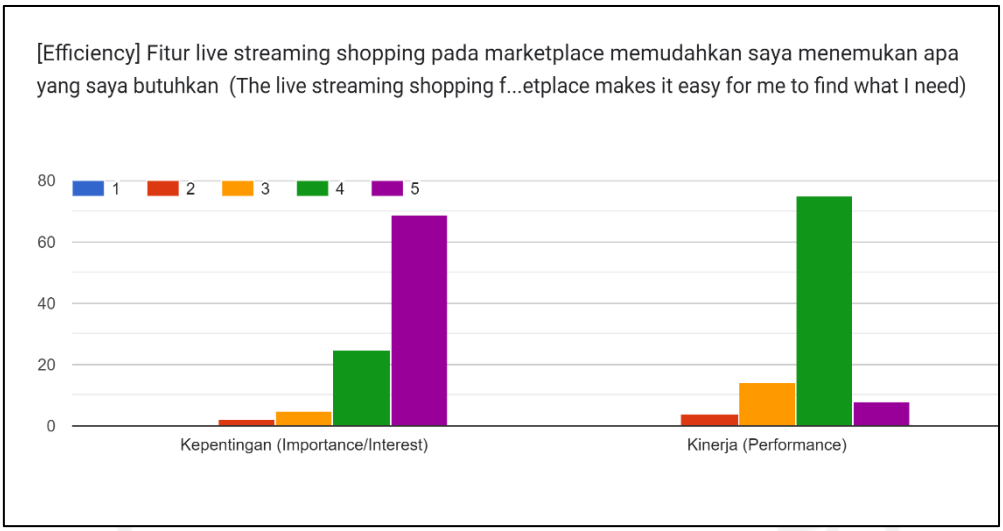
W. **Result of Gender** Electronic Service Quality questions



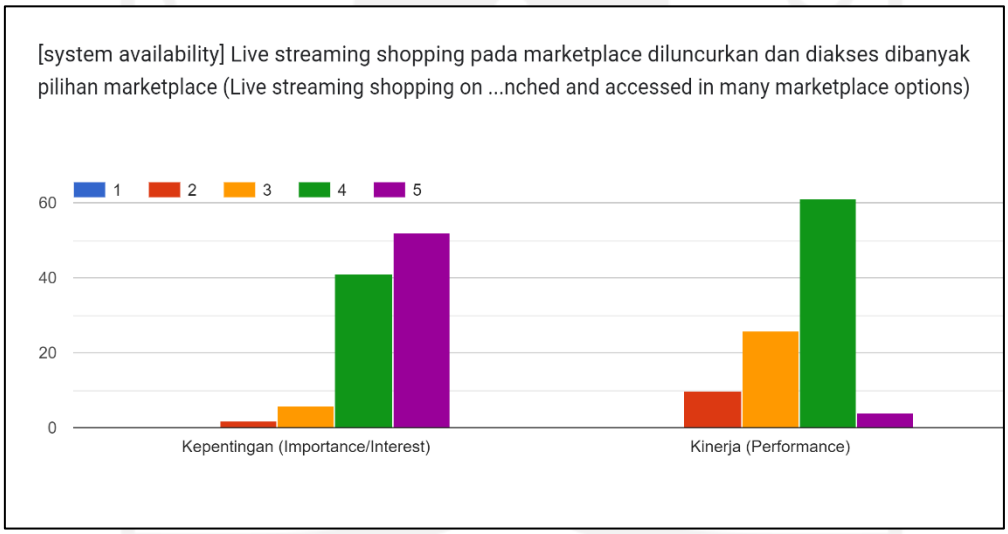
X. **Result of Domicile** Electronic Service Quality questions



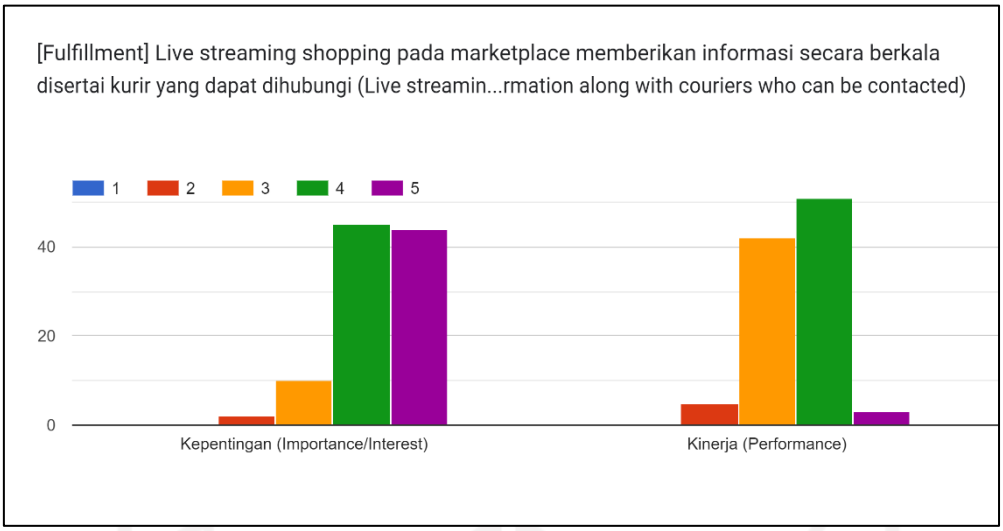
Y. Result of **Efficiency Dimesion** in Electronic Service Quality Questionnaire



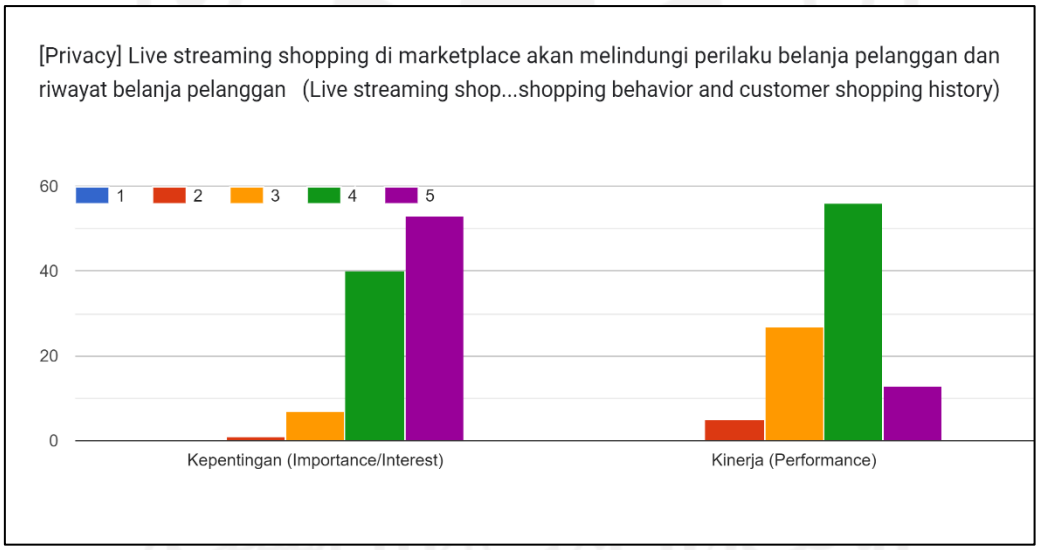
Z. Result of **System Availability Dimesion** in Electronic Service Quality Questionnaire



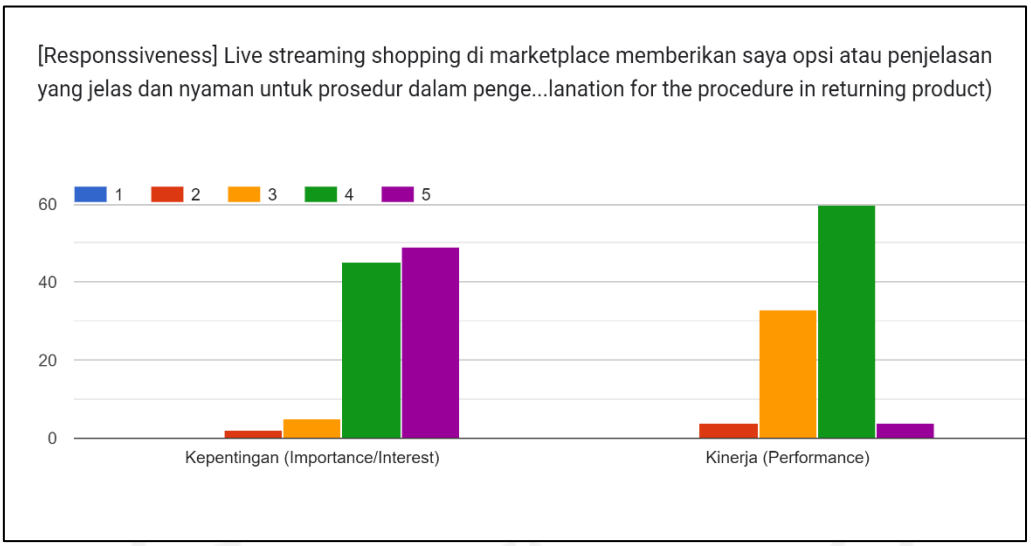
AA. Result of **Fulfillment Dimesion** in Electronic Service Quality Questionnaire



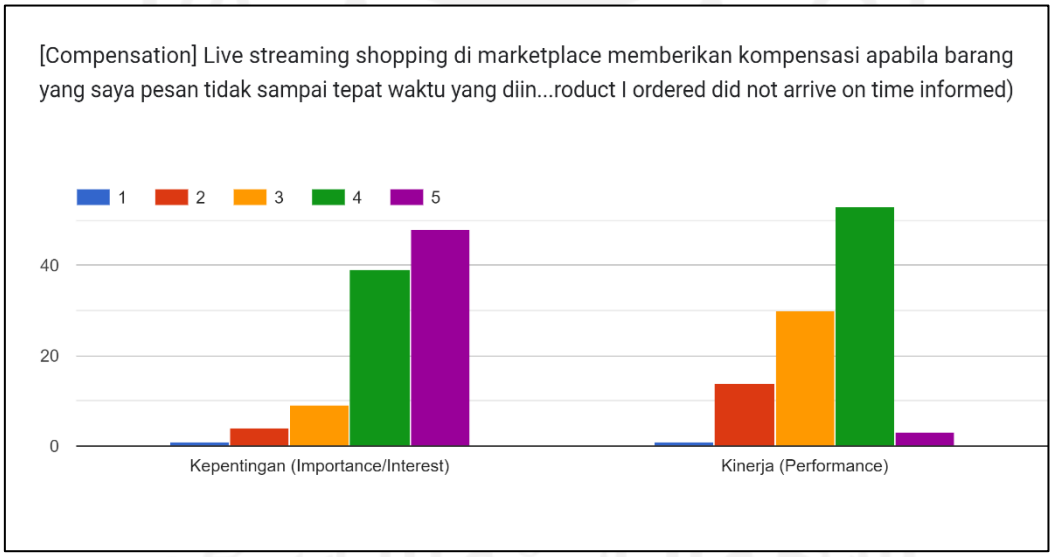
BB. Result of **Privacy Dimesion** in Electronic Service Quality Questionnaire



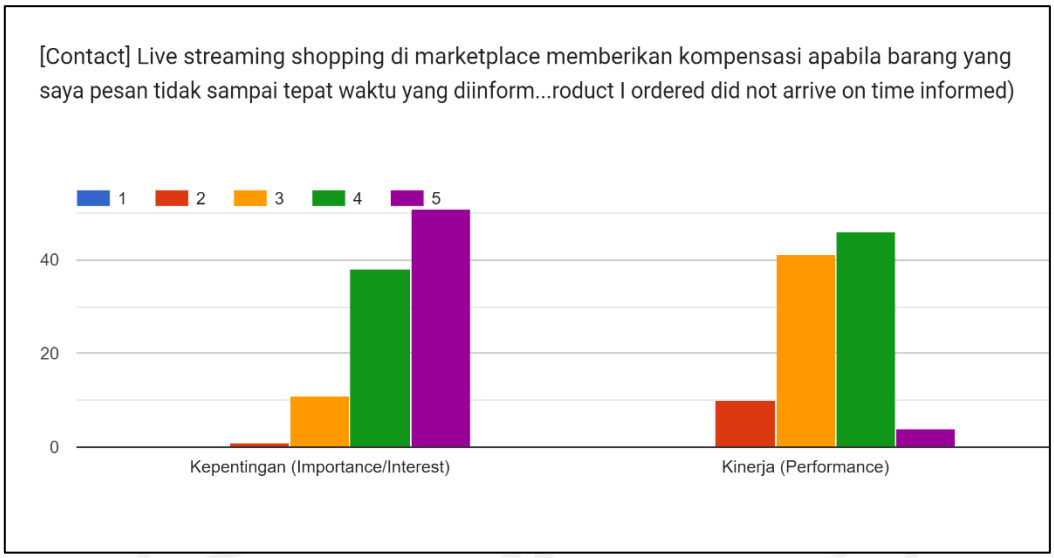
CC. Result of **Responssiveness Dimesion** in Electronic Service Quality Questionnaire



DD. Result of **Compensation Dimesion** in Electronic Service Quality Questionnaire



EE.Result of **Contact Dimesion** in Electronic Service Quality Questionnaire



FF. **Google Form Link of** Electronic Service Quality Questionnaire

Bit.ly/ServQual_LiveShopping

GG. Result of Electronic Service Quality Questionnaire

Link :

https://docs.google.com/spreadsheets/d/1ZWA551BGstYacmuN7fl2LghbdRDkJ8Q-Ni9iZX2x9e4/edit?resourcekey#gid=1820394120

HH. **Respondentsent** Test Data **(Valid)**

Importance

IMPORTANCE																																		
Efficiency							System Availability						Fulfillment						Privacy				Responsive				Compensation			Contact			Total
I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	I14	I15	I16	I17	I18	I19	I20	I21	I22	I23	I24	I25	I26	I27	I28	I29	I30	I31	I32	I33	
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IMPORTANCE																																		
Efficiency							System Availability						Fulfillment						Privacy				Responsive				Compensation		Contact			Total
I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	I14	I15	I16	I17	I18	I19	I20	I21	I22	I23	I24	I25	I26	I27	I28	I29	I30	I31	I32	I33	
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IMPORTANCE																																		
Efficiency							System Availability						Fulfillment						Privacy				Responsive				Compensation		Contact			Total
I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	I14	I15	I16	I17	I18	I19	I20	I21	I22	I23	I24	I25	I26	I27	I28	I29	I30	I31	I32	I33	
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IMPORTANCE																																		
Efficiency							System Availability						Fulfillment						Privacy				Responsive				Compensation		Contact			Total
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Performance

Performance																																			
Efficiency								System Availability					Fulfillment						Privacy				Responsive				Compensation			Contact			Total
P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	P28	P29	P30	P31	P32	P33	
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Performance																																		
Efficiency								System Availability						Fulfillment					Privacy				Responsive				Compensation			Contact			Total
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| Performance | | |

Performance																																			
Efficiency								System Availability						Fulfillment						Privacy				Responsive				Compensation			Contact			Total
P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	P28	P29	P30	P31	P32	P33	
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3	3	4	4	4	4	3	4	3	4	3	4	3	4	4	4	4	4	3	3	4	3	3	4	4	4	3	2	4	3	3	3	3	126
4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	3	4	4	3	4	4	3	5	3	3	4	4	3	4	4	4	4	122
4	3	4	3	4	3	4	4	4	3	3	3	3	3	4	4	3	4	4	3	4	4	3	5	4	4	4	5	4	4	4	4	3	117
3	3	4	4	3	4	5	4	4	4	3	4	3	4	2	4	3	3	4	4	4	3	4	3	3	3	3	4	3	3	4	4	4	117
4	2	4	4	3	2	4	5	3	4	2	2	3	4	3	4	4	4	4	4	3	4	4	4	4	4	5	3	4	4	4	3	2	118
3	3	4	3	4	3	4	3	4	3	3	4	4	4	4	4	3	3	4	4	3	4	4	4	4	4	4	3	3	3	3	4	4	122
4	4	3	3	5	4	4	4	4	4	4	4	3	3	2	4	3	4	4	4	4	3	4	4	3	3	4	3	3	4	4	4	5	114
4	4	3	4	3	2	4	4	3	3	4	3	4	4	4	4	4	4	4	4	4	3	3	3	3	2	3	4	2	4	3	3	4	116
4	4	3	4	4	4	3	4	3	4	4	3	3	3	4	4	3	4	4	5	4	3	2	4	3	3	3	4	3	3	4	4	2	123
3	4	4	4	3	4	5	4	4	4	4	4	3	4	2	4	3	4	4	4	3	4	4	4	3	4	4	4	4	3	3	4	4	122
4	4	3	4	3	3	3	4	4	4	4	5	4	3	3	4	3	4	5	4	4	3	4	4	4	3	4	3	3	4	3	4	4	118
4	4	4	4	4	2	3	4	3	4	4	3	3	3	3	4	4	3	4	4	4	3	4	4	4	3	3	4	3	4	4	4	3	111
4	5	4	3	3	4	4	4	4	3	5	4	3	2	3	3	4	3	3	4	4	3	2	3	4	3	3	3	3	3	2	3	3	120
4	3	3	4	3	4	4	4	4	4	3	3	3	4	3	3	4	4	4	4	3	4	4	4	4	4	4	3	4	4	3	4	3	116
4	4	2	3	4	3	4	3	4	3	4	4	4	2	3	3	4	3	4	4	3	4	3	4	4	4	3	4	4	3	4	4	3	117
4	4	3	3	3	3	3	4	4	3	4	4	4	3	3	3	4	4	3	4	4	4	4	4	4	3	3	4	3	3	4	4	3	110
3	4	3	4	4	3	4	4	3	3	4	3	3	5	2	4	3	4	4	4	4	3	4	3	2	2	5	2	2	3	3	3	3	110
4	3	4	3	3	3	3	3	4	4	3	4	4	3	3	3	3	3	3	4	3	3	2	4	3	3	3	4	3	3	4	4	4	127
4	4	3	4	3	4	5	4	4	3	4	4	4	4	5	2	4	4	3	4	4	4	5	4	4	5	4	4	3	4	4	4	2	118
5	2	3	4	4	4	4	4	3	4	2	4	4	4	2	3	3	4	3	4	4	3	4	3	4	4	4	4	4	4	4	4	2	123
5	3	4	2	4	2	3	4	4	5	3	5	4	5	3	4	3	3	5	5	4	3	4	3	4	4	3	4	4	4	4	3	3	109
3	4	3	3	3	3	4	3	4	4	4	4	3	3	4	3	3	3	4	4	3	4	2	4	3	3	3	3	3	3	3	3	3	119

Performance																																			
Efficiency								System Availability						Fulfillment						Privacy				Responsive				Compensation			Contact			Total
P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	P28	P29	P30	P31	P32	P33	
3	3	4	4	4	3	4	4	4	3	3	4	4	4	3	4	4	3	4	4	4	4	3	4	4	3	4	5	3	2	4	3	3	118

II. **Validity and reability** Tests

Importance Validity Test

		I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	I14	I15	I16	I17	I18	I19	I20	I21	I22	I23	I24	I25	I26	I27	I28	I29	I30	I31	I32	I33	Importance
I1	Pearson Correlation	1	.235	.035	.248	.000	.442*	.507**	.235	.030	.177	.148	.465**	-.134	.488**	.267	.537**	-.030	.310	.523**	.138	.211	.311	.367*	.267	.067	.217	.127	.211	.475**	-.033	.239	.030	.507**	.483**
	Sig. (2-tailed)		.210	.856	.186	1.000	.014	.004	.210	.873	.350	.435	.010	.481	.006	.154	.002	.876	.095	.003	.466	.264	.094	.046	.154	.724	.250	.505	.264	.008	.861	.204	.873	.004	.007
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
I2	Pearson Correlation	.235	1	.247	.251	.067	.522**	.165	.186	.094	.095	.060	.334	-.009	.217	.247	.437*	.128	.042	.641**	.033	.146	.591**	.396*	.487**	.050	.506**	.243	.267	.471**	.009	.437*	.217	.405*	.524**
	Sig. (2-tailed)	.210		.189	.181	.724	.003	.385	.326	.620	.617	.754	.071	.962	.249	.187	.016	.501	.827	.000	.864	.442	.001	.031	.006	.794	.004	.196	.153	.009	.962	.016	.249	.026	.003
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

I3	Pearson Correlation	.035	.247	1	.464**	.484**	.056	.342	.386*	.628**	.245	.430*	.343	.296	.249	.107	.153	.230	.429*	.008	.435*	.200	.292	.157	-.016	.386*	.251	.224	.450*	.140	.397*	.400*	.502**	.095	.566**
	Sig. (2-tailed)	.856	.189		.010	.007	.767	.064	.035	.000	.193	.018	.063	.113	.185	.575	.421	.222	.018	.966	.016	.290	.118	.407	.931	.035	.181	.235	.013	.462	.030	.028	.005	.618	.001
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
I4	Pearson Correlation	.248	.251	.464**	1	.447*	.406*	.489**	.451*	.500**	.422*	.221	.370*	.199	.409*	.531**	.311	.177	.277	.173	.361	.179	.361	.398*	.265	.251	.202	.236	.538**	.442*	.199	.489**	.409*	.222	.680**
	Sig. (2-tailed)	.186	.181	.010		.013	.026	.006	.012	.005	.020	.241	.044	.291	.025	.003	.094	.350	.138	.360	.050	.343	.050	.029	.156	.181	.285	.209	.002	.014	.291	.006	.025	.238	.000
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
I5	Pearson Correlation	.000	.067	.484**	.447*	1	.136	.298	.471**	.427*	.424*	.533**	.248	.668**	.305	.237	.298	.475**	.248	.116	.346	.241	.208	.267	.237	.471**	.162	.190	.361*	.475**	.535**	.298	.671**	.060	.644**
	Sig. (2-tailed)	1.000	.724	.007	.013		.473	.109	.009	.019	.019	.002	.186	.000	.101	.207	.109	.008	.186	.541	.061	.200	.271	.153	.207	.009	.391	.314	.050	.008	.002	.109	.000	.754	.000
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

I6	Pearson Correlation	.442*	.522**	.056	.406*	.136	1	.219	.110	.050	.000	.121	.380*	.055	.423*	.557**	.390*	.073	.127	.617**	.226	.344	.508**	.736**	.436*	.110	.243	.336	.098	.412*	.082	.633**	.299	.463*	.601**
	Sig. (2-tailed)	.014	.003	.767	.026	.473		.245	.563	.794	1.000	.524	.038	.775	.020	.001	.033	.703	.505	.000	.230	.063	.004	.000	.016	.563	.195	.069	.605	.024	.667	.000	.109	.010	.000
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
I7	Pearson Correlation	.507**	.165	.342	.489**	.298	.219	1	.165	.193	.084	.159	.296	.112	.411*	.007	.281	.326	.370*	.257	.029	.129	.153	.231	.113	-.197	.061	.102	.345	.418*	.008	.068	.084	.146	.421*
	Sig. (2-tailed)	.004	.385	.064	.006	.109	.245		.385	.307	.658	.401	.112	.557	.024	.970	.132	.079	.044	.171	.880	.496	.421	.219	.551	.298	.747	.591	.062	.022	.967	.723	.660	.442	.021
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
I8	Pearson Correlation	.235	.186	.386*	.451*	.471**	.110	.165	1	.340	.381*	.299	.334	.530**	.217	.367*	.317	.128	.417*	.172	.312	-.097	.312	.261	.367*	.457*	.397*	.243	.632**	.232	.413*	.076	.217	.165	.588**
	Sig. (2-tailed)	.210	.326	.035	.012	.009	.563	.385		.066	.038	.109	.071	.003	.249	.046	.088	.501	.022	.363	.094	.609	.094	.164	.046	.011	.030	.196	.000	.218	.023	.689	.249	.385	.001
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

I9	Pearson Correlation	.030	.094	.628**	.500**	.427*	.050	.193	.340	1	.345	.271	.416*	.383*	.219	.203	.135	.203	.265	-.099	.510**	.066	.131	.016	-.014	.340	.122	.197	.617**	.123	.473**	.353	.442*	.084	.511**
	Sig. (2-tailed)	.873	.620	.000	.005	.019	.794	.307	.066		.062	.148	.022	.037	.244	.283	.478	.283	.158	.602	.004	.729	.491	.932	.939	.066	.520	.297	.000	.517	.008	.056	.014	.660	.004
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
I10	Pearson Correlation	.177	.095	.245	.422*	.424*	.000	.084	.381*	.345	1	.377*	.088	.189	.216	.336	.295	.210	.307	.205	.196	.255	.196	.047	.462*	.381*	.153	.403*	.383*	.294	.236	.169	.474**	.211	.523**
	Sig. (2-tailed)	.350	.617	.193	.020	.019	1.000	.658	.038	.062		.040	.645	.317	.253	.070	.113	.266	.099	.276	.300	.173	.300	.804	.010	.038	.419	.027	.037	.115	.209	.373	.008	.263	.003
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
I11	Pearson Correlation	.148	.060	.430*	.221	.533**	.121	.159	.299	.271	.377*	1	.220	.119	.054	.000	.053	.316	.220	.103	.184	.214	.184	.237	.105	.538**	.048	.056	.107	.105	.119	.053	.379*	.371*	.415*
	Sig. (2-tailed)	.435	.754	.018	.241	.002	.524	.401	.109	.148	.040		.242	.532	.776	1.000	.781	.089	.242	.587	.329	.256	.329	.206	.579	.002	.801	.768	.574	.579	.532	.781	.039	.044	.023
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

I12	Pearson Correlation	.465**	.334	.343	.370*	.248	.380*	.296	.334	.416*	.088	.220	1	.166	.303	.405*	.481**	.184	.038	.180	.429*	-.224	.429*	.290	.184	.083	.235	.236	.448*	.368*	.331	.370*	.303	.407*	.570**
	Sig. (2-tailed)	.010	.071	.063	.044	.186	.038	.112	.071	.022	.645	.242		.381	.104	.026	.007	.330	.840	.341	.018	.234	.018	.120	.330	.661	.211	.210	.013	.045	.074	.044	.104	.026	.001
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
I13	Pearson Correlation	-.134	-.009	.296	.199	.668**	.055	.112	.530**	.383*	.189	.119	.166	1	.016	.182	.367*	.301	.207	.085	.120	-.169	.259	.062	.063	.261	.116	.279	.314	.293	.607**	.008	.383*	-.008	.409*
	Sig. (2-tailed)	.481	.962	.113	.291	.000	.775	.557	.003	.037	.317	.532	.381		.932	.335	.046	.106	.272	.654	.527	.372	.167	.743	.739	.164	.542	.135	.091	.116	.000	.967	.037	.967	.025
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
I14	Pearson Correlation	.488**	.217	.249	.409*	.305	.423*	.411*	.217	.219	.216	.054	.303	.016	1	.420*	.353	.311	.492**	.326	.510**	.506**	.257	.383*	.420*	.217	.419*	.197	.286	.557**	.350	.462*	.442*	.193	.660**
	Sig. (2-tailed)	.006	.249	.185	.025	.101	.020	.024	.249	.244	.253	.776	.104	.932		.021	.056	.094	.006	.079	.004	.004	.170	.037	.021	.249	.021	.297	.125	.001	.058	.010	.014	.307	.000
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

I15	Pearson Correlation	.267	.247	.107	.531**	.237	.557**	.007	.367*	.203	.336	.000	.405*	.182	.420*	1	.524**	.049	.258	.441*	.386*	.150	.386*	.539**	.472**	.128	.379*	.203	.364*	.373*	.293	.524**	.420*	.219	.625**
	Sig. (2-tailed)	.154	.187	.575	.003	.207	.001	.970	.046	.283	.070	1.000	.026	.335	.021		.003	.796	.169	.015	.035	.429	.035	.002	.008	.501	.039	.282	.048	.042	.116	.003	.021	.244	.000
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
I16	Pearson Correlation	.537**	.437*	.153	.311	.298	.390*	.281	.317	.135	.295	.053	.481**	.367*	.353	.524**	1	.205	.185	.680**	.219	-.022	.590**	.367*	.312	-.044	.423*	.238	.194	.750**	.112	.253	.353	.495**	.636**
	Sig. (2-tailed)	.002	.016	.421	.094	.109	.033	.132	.088	.478	.113	.781	.007	.046	.056	.003		.276	.328	.000	.246	.910	.001	.046	.094	.817	.020	.205	.305	.000	.557	.178	.056	.005	.000
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
I17	Pearson Correlation	-.030	.128	.230	.177	.475**	.073	.326	.128	.203	.210	.316	.184	.301	.311	.049	.205	1	.037	.131	.263	.150	.016	.182	.155	.008	-.006	.203	.043	.373*	.174	.099	.203	.113	.367*
	Sig. (2-tailed)	.876	.501	.222	.350	.008	.703	.079	.501	.283	.266	.089	.330	.106	.094	.796	.276		.847	.490	.161	.429	.931	.335	.414	.967	.973	.282	.822	.042	.357	.602	.283	.551	.046
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

I18	Pearson Correlation	.310	.042	.429*	.277	.248	.127	.370*	.417*	.265	.307	.220	.038	.207	.492**	.258	.185	.037	1	.252	.086	.224	.086	.331	.368*	.167	.269	.118	.336	.074	.166	.074	.378*	.037	.463*
	Sig. (2-tailed)	.095	.827	.018	.138	.186	.505	.044	.022	.158	.099	.242	.840	.272	.006	.169	.328	.847		.179	.652	.234	.652	.074	.045	.378	.151	.535	.069	.699	.381	.698	.039	.846	.010
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
I19	Pearson Correlation	.523**	.641**	.008	.173	.116	.617**	.257	.172	-.099	.205	.103	.180	.085	.326	.441*	.680**	.131	.252	1	-.008	.399*	.474**	.668**	.441*	-.063	.522**	.177	.084	.593**	-.085	.264	.220	.465**	.566**
	Sig. (2-tailed)	.003	.000	.966	.360	.541	.000	.171	.363	.602	.276	.587	.341	.654	.079	.015	.000	.490	.179		.966	.029	.008	.000	.015	.743	.003	.350	.659	.001	.654	.159	.243	.010	.001
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
I20	Pearson Correlation	.138	.033	.435*	.361	.346	.226	.029	.312	.510**	.196	.184	.429*	.120	.510**	.386*	.219	.263	.086	-.008	1	.300	-.005	.259	.016	.312	.086	.171	.425*	.353	.434*	.466**	.384*	.029	.506**
	Sig. (2-tailed)	.466	.864	.016	.050	.061	.230	.880	.094	.004	.300	.329	.018	.527	.004	.035	.246	.161	.652	.966		.108	.980	.167	.931	.094	.651	.366	.019	.056	.016	.009	.036	.880	.004
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

I21	Pearson Correlation	.211	.146	.200	.179	.241	.344	.129	-.097	.066	.255	.214	-.224	-.169	.506**	.150	-.022	.150	.224	.399*	.300	1	.050	.434*	.150	.267	.274	.046	.022	.279	.048	.409*	.286	.022	.369*
	Sig. (2-tailed)	.264	.442	.290	.343	.200	.063	.496	.609	.729	.173	.256	.234	.372	.004	.429	.910	.429	.234	.029	.108		.793	.016	.429	.153	.143	.810	.909	.136	.800	.025	.125	.910	.045
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
I22	Pearson Correlation	.311	.591**	.292	.361	.208	.508**	.153	.312	.131	.196	.184	.429*	.259	.257	.386*	.590**	.016	.086	.474**	-.005	.050	1	.259	.386*	.172	.648**	.302	.300	.353	.157	.342	.257	.648**	.601**
	Sig. (2-tailed)	.094	.001	.118	.050	.271	.004	.421	.094	.491	.300	.329	.018	.167	.170	.035	.001	.931	.652	.008	.980	.793		.167	.035	.363	.000	.104	.108	.056	.407	.064	.170	.000	.000
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
I23	Pearson Correlation	.367*	.396*	.157	.398*	.267	.736**	.231	.261	.016	.047	.237	.290	.062	.383*	.539**	.367*	.182	.331	.668**	.259	.434*	.259	1	.420*	.126	.333	.152	.072	.412*	-.062	.486**	.383*	.231	.593**
	Sig. (2-tailed)	.046	.031	.407	.029	.153	.000	.219	.164	.932	.804	.206	.120	.743	.037	.002	.046	.335	.074	.000	.167	.016	.167		.021	.508	.072	.421	.704	.024	.743	.006	.037	.219	.001
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

I24	Pearson Correlation	.267	.487**	-.016	.265	.237	.436*	.113	.367*	-.014	.462*	.105	.184	.063	.420*	.472**	.312	.155	.368*	.441*	.016	.150	.386*	.420*	1	.128	.379*	.316	.257	.373*	.056	.418*	.420*	.219	.549**
	Sig. (2-tailed)	.154	.006	.931	.156	.207	.016	.551	.046	.939	.010	.579	.330	.739	.021	.008	.094	.414	.045	.015	.931	.429	.035	.021		.501	.039	.089	.170	.042	.771	.022	.021	.244	.002
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
I25	Pearson Correlation	.067	.050	.386*	.251	.471**	.110	-.197	.457*	.340	.381*	.538**	.083	.261	.217	.128	-.044	.008	.167	-.063	.312	.267	.172	.126	.128	1	.069	.243	.146	.112	.548**	.317	.463**	.165	.424*
	Sig. (2-tailed)	.724	.794	.035	.181	.009	.563	.298	.011	.066	.038	.002	.661	.164	.249	.501	.817	.967	.378	.743	.094	.153	.363	.508	.501		.716	.196	.442	.557	.002	.088	.010	.385	.019
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
I26	Pearson Correlation	.217	.506**	.251	.202	.162	.243	.061	.397*	.122	.153	.048	.235	.116	.419*	.379*	.423*	-.006	.269	.522**	.086	.274	.648**	.333	.379*	.069	1	.010	.372*	.296	.101	.229	.221	.352	.520**
	Sig. (2-tailed)	.250	.004	.181	.285	.391	.195	.747	.030	.520	.419	.801	.211	.542	.021	.039	.020	.973	.151	.003	.651	.143	.000	.072	.039	.716		.957	.043	.113	.594	.223	.240	.056	.003
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

I27	Pearson Correlation	.127	.243	.224	.236	.190	.336	.102	.243	.197	.403*	.056	.236	.279	.197	.203	.238	.203	.118	.177	.171	.046	.302	.152	.316	.243	.010	1	.275	.248	.356	.352	.313	.102	.441*
	Sig. (2-tailed)	.505	.196	.235	.209	.314	.069	.591	.196	.297	.027	.768	.210	.135	.297	.282	.205	.282	.535	.350	.366	.810	.104	.421	.089	.196	.957		.142	.186	.054	.057	.092	.591	.015
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
I28	Pearson Correlation	.211	.267	.450*	.538**	.361*	.098	.345	.632**	.617**	.383*	.107	.448*	.314	.286	.364*	.194	.043	.336	.084	.425*	.022	.300	.072	.257	.146	.372*	.275	1	.171	.410*	.194	.176	.129	.567**
	Sig. (2-tailed)	.264	.153	.013	.002	.050	.605	.062	.000	.000	.037	.574	.013	.091	.125	.048	.305	.822	.069	.659	.019	.909	.108	.704	.170	.442	.043	.142		.365	.024	.305	.352	.496	.001
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
I29	Pearson Correlation	.475**	.471**	.140	.442*	.475**	.412*	.418*	.232	.123	.294	.105	.368*	.293	.557**	.373*	.750**	.373*	.074	.593**	.353	.279	.353	.412*	.373*	.112	.296	.248	.171	1	.182	.432*	.449*	.312	.678**
	Sig. (2-tailed)	.008	.009	.462	.014	.008	.024	.022	.218	.517	.115	.579	.045	.116	.001	.042	.000	.042	.699	.001	.056	.136	.056	.024	.042	.557	.113	.186	.365		.335	.017	.013	.094	.000
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

I30	Pearson Correlation	-.033	.009	.397*	.199	.535**	.082	.008	.413*	.473**	.236	.119	.331	.607**	.350	.293	.112	.174	.166	-.085	.434*	.048	.157	-.062	.056	.548**	.101	.356	.410*	.182	1	.231	.473**	-.112	.456*
	Sig. (2-tailed)	.861	.962	.030	.291	.002	.667	.967	.023	.008	.209	.532	.074	.000	.058	.116	.557	.357	.381	.654	.016	.800	.407	.743	.771	.002	.594	.054	.024	.335		.219	.008	.557	.011
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
I31	Pearson Correlation	.239	.437*	.400*	.489**	.298	.633**	.068	.076	.353	.169	.053	.370*	.008	.462*	.524**	.253	.099	.074	.264	.466**	.409*	.342	.486**	.418*	.317	.229	.352	.194	.432*	.231	1	.571**	.174	.617**
	Sig. (2-tailed)	.204	.016	.028	.006	.109	.000	.723	.689	.056	.373	.781	.044	.967	.010	.003	.178	.602	.698	.159	.009	.025	.064	.006	.022	.088	.223	.057	.305	.017	.219		.001	.357	.000
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
I32	Pearson Correlation	.030	.217	.502**	.409*	.671**	.299	.084	.217	.442*	.474**	.379*	.303	.383*	.442*	.420*	.353	.203	.378*	.220	.384*	.286	.257	.383*	.420*	.463**	.221	.313	.176	.449*	.473**	.571**	1	-.025	.667**
	Sig. (2-tailed)	.873	.249	.005	.025	.000	.109	.660	.249	.014	.008	.039	.104	.037	.014	.021	.056	.283	.039	.243	.036	.125	.170	.037	.021	.010	.240	.092	.352	.013	.008	.001		.894	.000
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

I33	Pearson Correlation	.507**	.405*	.095	.222	.060	.463*	.146	.165	.084	.211	.371*	.407*	-.008	.193	.219	.495**	.113	.037	.465**	.029	.022	.648**	.231	.219	.165	.352	.102	.129	.312	-.112	.174	-.025	1	.446*
	Sig. (2-tailed)	.004	.026	.618	.238	.754	.010	.442	.385	.660	.263	.044	.026	.967	.307	.244	.005	.551	.846	.010	.880	.910	.000	.219	.244	.385	.056	.591	.496	.094	.557	.357	.894		.014
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Importance	Pearson Correlation	.483**	.524**	.566**	.680**	.644**	.601**	.421*	.588**	.511**	.523**	.415*	.570**	.409*	.660**	.625**	.636**	.367*	.463*	.566**	.506**	.369*	.601**	.593**	.549**	.424*	.520**	.441*	.567**	.678**	.456*	.617**	.667**	.446*	1
	Sig. (2-tailed)	.007	.003	.001	.000	.000	.000	.021	.001	.004	.003	.023	.001	.025	.000	.000	.000	.046	.010	.001	.004	.045	.000	.001	.002	.019	.003	.015	.001	.000	.011	.000	.000	.014	
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

Importance Reliability Test

Reliability Statistics	
Cronbach's Alpha	N of Items
.922	33

Performance Validity Test

		P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	P28	P29	P30	P31	P32	P33	Performance
P1	Pearson Correlation	1	.140	.310	.530**	.537**	.203	-.097	.082	.134	.447*	.373*	.050	.518**	.361*	.507**	.290	.536**	.241	.303	.286	.178	.538**	.235	.442*	.296	.248	.175	.285	.135	.217	.200	.200	.413*	.558**
	Sig. (2-tailed)		.461	.095	.003	.002	.281	.612	.667	.481	.013	.043	.793	.003	.050	.004	.121	.002	.200	.103	.125	.347	.002	.210	.014	.112	.186	.356	.127	.478	.250	.290	.290	.023	.001
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P2	Pearson Correlation	.140	1	.521**	-.149	.326	.293	.223	.413*	-.028	.000	-.104	.566**	.017	.051	.301	-.191	.059	.455*	.139	.241	.523**	.113	.339	.514**	.373*	.626**	.042	.423*	.452*	.296	.587**	.378*	.250	.488**
	Sig. (2-tailed)	.461		.003	.433	.079	.116	.236	.023	.883	1.000	.583	.001	.930	.791	.106	.311	.758	.011	.464	.200	.003	.552	.067	.004	.042	.000	.826	.020	.012	.113	.001	.040	.182	.006
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P3	Pearson Correlation	.310	.521**	1	.088	.407*	.252	.180	.304	.083	.277	.000	.434*	.198	.224	.407*	.051	.289	.448*	.479**	.194	.478**	.401*	.334	.633**	.220	.370*	.031	.109	.301	.336	.310	.310	.057	.531**
	Sig. (2-tailed)	.095	.003		.645	.026	.179	.342	.102	.663	.138	1.000	.017	.295	.234	.026	.788	.122	.013	.007	.305	.007	.028	.071	.000	.242	.044	.871	.568	.107	.070	.096	.096	.765	.003
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

P4	Pearson Correlation	.530**	-.149	.088	1	.084	.164	.102	.116	.094	.601**	.422*	.177	.648**	.638**	.337	.410*	.527**	.128	.312	.221	.042	.343	.095	.144	.251	.105	.459*	.031	.114	.038	.141	.141	.259	.484**
	Sig. (2-tailed)	.003	.433	.645		.658	.385	.590	.543	.619	.000	.020	.351	.000	.000	.068	.025	.003	.501	.093	.241	.826	.064	.617	.447	.180	.579	.011	.871	.548	.841	.457	.457	.166	.007
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P5	Pearson Correlation	.537**	.326	.407*	.084	1	.118	.078	.117	.032	.027	.400*	.086	.255	.086	.317	.390*	.503**	.237	.451*	.084	.396*	.241	.237	.511**	.265	.311	.057	.003	.145	.197	.182	.360	.153	.461*
	Sig. (2-tailed)	.002	.079	.026	.658		.535	.683	.538	.867	.889	.028	.650	.175	.651	.088	.033	.005	.207	.012	.660	.030	.200	.208	.004	.157	.094	.766	.989	.446	.297	.337	.050	.419	.010
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P6	Pearson Correlation	.203	.293	.252	.164	.118	1	-.034	.076	.318	.364*	.260	.395*	.134	.231	.472**	.053	.038	.189	.186	.236	.338	.376*	.180	.095	.310	.260	.337	.341	.376*	.233	.476**	.041	.410*	.477**
	Sig. (2-tailed)	.281	.116	.179	.385	.535		.860	.689	.086	.048	.165	.031	.479	.220	.009	.781	.842	.317	.325	.209	.068	.041	.342	.618	.096	.165	.069	.065	.041	.215	.008	.831	.024	.008
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

P7	Pearson Correlation	-.097	.223	.180	.102	.078	-.034	1	.269	.310	.259	.252	.369*	.248	.052	.181	.312	.465**	.384*	.264	.400*	.327	-.039	.205	.335	.300	.612**	.369*	.247	.273	.149	.210	.354	.226	.507**
	Sig. (2-tailed)	.612	.236	.342	.590	.683	.860		.151	.096	.167	.179	.045	.186	.784	.337	.094	.010	.036	.159	.029	.078	.838	.278	.070	.107	.000	.045	.187	.144	.432	.266	.055	.230	.004
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P8	Pearson Correlation	.082	.413*	.304	.116	.117	.076	.269	1	-.044	.293	.081	.474**	.091	.079	.176	.041	.015	.611**	.217	.375*	.233	.088	.308	.468**	.194	.569**	-.016	.373*	.352	.461*	.507**	.016	-.060	.451*
	Sig. (2-tailed)	.667	.023	.102	.543	.538	.689	.151		.818	.116	.669	.008	.631	.679	.353	.831	.936	.000	.250	.041	.215	.643	.097	.009	.305	.001	.932	.042	.056	.010	.004	.932	.753	.012
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P9	Pearson Correlation	.134	-.028	.083	.094	.032	.318	.310	-.044	1	.388*	.199	.207	.229	-.072	.486**	.122	.180	.314	.317	.543**	.182	.108	.279	.082	.237	.199	.073	.258	.324	.318	.194	.294	.300	.425*
	Sig. (2-tailed)	.481	.883	.663	.619	.867	.086	.096	.818		.034	.291	.273	.223	.704	.006	.522	.340	.091	.088	.002	.335	.570	.136	.667	.206	.291	.700	.169	.081	.086	.306	.115	.107	.019
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

P10	Pearson Correlation	.447*	.000	.277	.601**	.027	.364*	.259	.293	.388*	1	.467**	.357	.553**	.646**	.427*	.407*	.417*	.404*	.321	.559**	.053	.433*	.211	.274	.238	.400*	.447*	.157	.217	.412*	.313	-.022	.389*	.661**
	Sig. (2-tailed)	.013	1.000	.138	.000	.889	.048	.167	.116	.034		.009	.053	.002	.000	.019	.026	.022	.027	.084	.001	.781	.017	.264	.143	.205	.029	.013	.408	.250	.024	.093	.907	.033	.000
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P11	Pearson Correlation	.373*	-.104	.000	.422*	.400*	.260	.252	.081	.199	.467**	1	.037	.505**	.359	.489**	.679**	.521**	.090	.534**	.349	.088	.281	-.050	.101	.309	.185	.484**	.098	.120	.283	.112	.335	.273	.551**
	Sig. (2-tailed)	.043	.583	1.000	.020	.028	.165	.179	.669	.291	.009		.845	.004	.051	.006	.000	.003	.637	.002	.059	.642	.133	.792	.594	.097	.327	.007	.607	.526	.130	.557	.070	.144	.002
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P12	Pearson Correlation	.050	.566**	.434*	.177	.086	.395*	.369*	.474**	.207	.357	.037	1	.165	.198	.301	.066	.184	.433*	.229	.320	.350	.282	.642**	.285	.577**	.558**	.227	.370*	.686**	.376*	.571**	.272	.375*	.639**
	Sig. (2-tailed)	.793	.001	.017	.351	.650	.031	.045	.008	.273	.053	.845		.383	.293	.106	.728	.331	.017	.225	.085	.058	.131	.000	.126	.001	.001	.228	.044	.000	.041	.001	.146	.041	.000
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

P13	Pearson Correlation	.518**	.017	.198	.648**	.255	.134	.248	.091	.229	.553**	.505**	.165	1	.547**	.411*	.241	.570**	.389*	.393*	.268	.151	.547**	.223	.358	.248	.327	.444*	.117	.097	.404*	.133	.193	.278	.613**
	Sig. (2-tailed)	.003	.930	.295	.000	.175	.479	.186	.631	.223	.002	.004	.383		.002	.024	.200	.001	.034	.031	.153	.424	.002	.237	.052	.186	.078	.014	.538	.612	.027	.482	.306	.137	.000
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P14	Pearson Correlation	.361*	.051	.224	.638**	.086	.231	.052	.079	-.072	.646**	.359	.198	.547**	1	.022	.404*	.320	.087	.159	.150	-.043	.389*	.024	.221	.107	.179	.379*	-.095	.097	.176	.072	-.018	.397*	.420*
	Sig. (2-tailed)	.050	.791	.234	.000	.651	.220	.784	.679	.704	.000	.051	.293	.002		.910	.027	.085	.648	.400	.428	.822	.034	.899	.240	.574	.343	.039	.618	.609	.352	.705	.925	.030	.021
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P15	Pearson Correlation	.507**	.301	.407*	.337	.317	.472**	.181	.176	.486**	.427*	.489**	.301	.411*	.022	1	.301	.386*	.409*	.569**	.475**	.418*	.337	.165	.341	.371*	.400*	.182	.363*	.337	.449*	.503**	.414*	.202	.683**
	Sig. (2-tailed)	.004	.106	.026	.068	.088	.009	.337	.353	.006	.019	.006	.106	.024	.910		.106	.035	.025	.001	.008	.022	.068	.385	.065	.044	.028	.337	.048	.068	.013	.005	.023	.284	.000
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

P16	Pearson Correlation	.290	-.191	.051	.410*	.390*	.053	.312	.041	.122	.407*	.679**	.066	.241	.404*	.301	1	.574**	.045	.265	.271	-.034	.134	.006	.135	.221	.185	.169	-.167	.067	.063	.058	.182	.300	.412*
	Sig. (2-tailed)	.121	.311	.788	.025	.033	.781	.094	.831	.522	.026	.000	.728	.200	.027	.106		.001	.814	.158	.147	.857	.481	.977	.476	.241	.328	.371	.378	.726	.742	.761	.336	.108	.024
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P17	Pearson Correlation	.536**	.059	.289	.527**	.503**	.038	.465**	.015	.180	.417*	.521**	.184	.570**	.320	.386*	.574**	1	.353	.403*	.429*	.171	.489**	.248	.399*	.372*	.382*	.486**	-.039	.038	.028	.165	.374*	.482**	.641**
	Sig. (2-tailed)	.002	.758	.122	.003	.005	.842	.010	.936	.340	.022	.003	.331	.001	.085	.035	.001		.056	.027	.018	.365	.006	.187	.029	.043	.037	.006	.839	.844	.884	.383	.041	.007	.000
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P18	Pearson Correlation	.241	.455*	.448*	.128	.237	.189	.384*	.611**	.314	.404*	.090	.433*	.389*	.087	.409*	.045	.353	1	.338	.508**	.257	.389*	.340	.639**	.107	.628**	.162	.253	.194	.509**	.469**	.198	.099	.617**
	Sig. (2-tailed)	.200	.011	.013	.501	.207	.317	.036	.000	.091	.027	.637	.017	.034	.648	.025	.814	.056		.067	.004	.170	.034	.066	.000	.574	.000	.391	.177	.303	.004	.009	.293	.602	.000
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

P19	Pearson Correlation	.303	.139	.479**	.312	.451*	.186	.264	.217	.317	.321	.534**	.229	.393*	.159	.569**	.265	.403*	.338	1	.370*	.308	.223	.197	.270	.343	.123	.366*	.234	.312	.290	.267	.515**	.005	.590**
	Sig. (2-tailed)	.103	.464	.007	.093	.012	.325	.159	.250	.088	.084	.002	.225	.031	.400	.001	.158	.027	.067		.044	.098	.237	.298	.149	.064	.516	.047	.213	.094	.121	.154	.004	.979	.001
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P20	Pearson Correlation	.286	.241	.194	.221	.084	.236	.400*	.375*	.543**	.559**	.349	.320	.268	.150	.475**	.271	.429*	.508**	.370*	1	.167	.210	.221	.255	.416*	.427*	.398*	.472**	.294	.414*	.382*	.382*	.315	.654**
	Sig. (2-tailed)	.125	.200	.305	.241	.660	.209	.029	.041	.002	.001	.059	.085	.153	.428	.008	.147	.018	.004	.044		.378	.265	.241	.174	.022	.019	.030	.008	.114	.023	.037	.037	.090	.000
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P21	Pearson Correlation	.178	.523**	.478**	.042	.396*	.338	.327	.233	.182	.053	.088	.350	.151	-.043	.418*	-.034	.171	.257	.308	.167	1	.192	.232	.412*	.316	.531**	.024	.395*	.288	.296	.539**	.450*	.141	.506**
	Sig. (2-tailed)	.347	.003	.007	.826	.030	.068	.078	.215	.335	.781	.642	.058	.424	.822	.022	.857	.365	.170	.098	.378		.310	.218	.024	.089	.003	.901	.031	.123	.113	.002	.012	.456	.004
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

P22	Pearson Correlation	.538**	.113	.401*	.343	.241	.376*	-.039	.088	.108	.433*	.281	.282	.547**	.389*	.337	.134	.489**	.389*	.223	.210	.192	1	.380*	.440*	.048	.281	.282	.177	.043	.131	.202	.040	.444*	.524**
	Sig. (2-tailed)	.002	.552	.028	.064	.200	.041	.838	.643	.570	.017	.133	.131	.002	.034	.068	.481	.006	.034	.237	.265	.310		.038	.015	.802	.133	.131	.350	.820	.490	.285	.832	.014	.003
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P23	Pearson Correlation	.235	.339	.334	.095	.237	.180	.205	.308	.279	.211	-.050	.642**	.223	.024	.165	.006	.248	.340	.197	.221	.232	.380*	1	.384*	.418*	.451*	.003	.410*	.380*	.288	.568**	.165	.321	.511**
	Sig. (2-tailed)	.210	.067	.071	.617	.208	.342	.278	.097	.136	.264	.792	.000	.237	.899	.385	.977	.187	.066	.298	.241	.218	.038		.036	.021	.012	.986	.025	.038	.123	.001	.385	.084	.004
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P24	Pearson Correlation	.442*	.514**	.633**	.144	.511**	.095	.335	.468**	.082	.274	.101	.285	.358	.221	.341	.135	.399*	.639**	.270	.255	.412*	.440*	.384*	1	.121	.609**	-.020	.286	.110	.464**	.428*	.224	.206	.600**
	Sig. (2-tailed)	.014	.004	.000	.447	.004	.618	.070	.009	.667	.143	.594	.126	.052	.240	.065	.476	.029	.000	.149	.174	.024	.015	.036		.524	.000	.915	.125	.563	.010	.018	.234	.275	.000
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

P25	Pearson Correlation	.296	.373*	.220	.251	.265	.310	.300	.194	.237	.238	.309	.577**	.248	.107	.371*	.221	.372*	.107	.343	.416*	.316	.048	.418*	.121	1	.221	.399*	.428*	.526**	.337	.399*	.488**	.489**	.609**
	Sig. (2-tailed)	.112	.042	.242	.180	.157	.096	.107	.305	.206	.205	.097	.001	.186	.574	.044	.241	.043	.574	.064	.022	.089	.802	.021	.524		.241	.029	.018	.003	.069	.029	.006	.006	.000
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P26	Pearson Correlation	.248	.626**	.370*	.105	.311	.260	.612**	.569**	.199	.400*	.185	.558**	.327	.179	.400*	.185	.382*	.628**	.123	.427*	.531**	.281	.451*	.609**	.221	1	.112	.359	.361*	.444*	.633**	.186	.342	.698**
	Sig. (2-tailed)	.186	.000	.044	.579	.094	.165	.000	.001	.291	.029	.327	.001	.078	.343	.028	.328	.037	.000	.516	.019	.003	.133	.012	.000	.241		.557	.051	.050	.014	.000	.325	.065	.000
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P27	Pearson Correlation	.175	.042	.031	.459*	.057	.337	.369*	-.016	.073	.447*	.484**	.227	.444*	.379*	.182	.169	.486**	.162	.366*	.398*	.024	.282	.003	-.020	.399*	.112	1	.195	.121	-.003	-.002	.372*	.284	.466**
	Sig. (2-tailed)	.356	.826	.871	.011	.766	.069	.045	.932	.700	.013	.007	.228	.014	.039	.337	.371	.006	.391	.047	.030	.901	.131	.986	.915	.029	.557		.302	.524	.989	.990	.043	.129	.009
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

P28	Pearson Correlation	.285	.423*	.109	.031	.003	.341	.247	.373*	.258	.157	.098	.370*	.117	-.095	.363*	-.167	-.039	.253	.234	.472**	.395*	.177	.410*	.286	.428*	.359	.195	1	.531**	.311	.549**	.352	.333	.505**
	Sig. (2-tailed)	.127	.020	.568	.871	.989	.065	.187	.042	.169	.408	.607	.044	.538	.618	.048	.378	.839	.177	.213	.008	.031	.350	.025	.125	.018	.051	.302		.003	.095	.002	.056	.072	.004
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P29	Pearson Correlation	.135	.452*	.301	.114	.145	.376*	.273	.352	.324	.217	.120	.686**	.097	.097	.337	.067	.038	.194	.312	.294	.288	.043	.380*	.110	.526**	.361*	.121	.531**	1	.306	.363*	.363*	.444*	.539**
	Sig. (2-tailed)	.478	.012	.107	.548	.446	.041	.144	.056	.081	.250	.526	.000	.612	.609	.068	.726	.844	.303	.094	.114	.123	.820	.038	.563	.003	.050	.524	.003		.100	.049	.049	.014	.002
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P30	Pearson Correlation	.217	.296	.336	.038	.197	.233	.149	.461*	.318	.412*	.283	.376*	.404*	.176	.449*	.063	.028	.509**	.290	.414*	.296	.131	.288	.464**	.337	.444*	-.003	.311	.306	1	.435*	.192	.040	.541**
	Sig. (2-tailed)	.250	.113	.070	.841	.297	.215	.432	.010	.086	.024	.130	.041	.027	.352	.013	.742	.884	.004	.121	.023	.113	.490	.123	.010	.069	.014	.989	.095	.100		.016	.309	.835	.002
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

P31	Pearson Correlation	.200	.587**	.310	.141	.182	.476**	.210	.507**	.194	.313	.112	.571**	.133	.072	.503**	.058	.165	.469**	.267	.382*	.539**	.202	.568**	.428*	.399*	.633**	-.002	.549**	.363*	.435*	1	.177	.311	.625**
	Sig. (2-tailed)	.290	.001	.096	.457	.337	.008	.266	.004	.306	.093	.557	.001	.482	.705	.005	.761	.383	.009	.154	.037	.002	.285	.001	.018	.029	.000	.990	.002	.049	.016		.349	.094	.000
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P32	Pearson Correlation	.200	.378*	.310	.141	.360	.041	.354	.016	.294	-.022	.335	.272	.193	-.018	.414*	.182	.374*	.198	.515**	.382*	.450*	.040	.165	.224	.488**	.186	.372*	.352	.363*	.192	.177	1	.174	.504**
	Sig. (2-tailed)	.290	.040	.096	.457	.050	.831	.055	.932	.115	.907	.070	.146	.306	.925	.023	.336	.041	.293	.004	.037	.012	.832	.385	.234	.006	.325	.043	.056	.049	.309	.349		.358	.005
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P33	Pearson Correlation	.413*	.250	.057	.259	.153	.410*	.226	-.060	.300	.389*	.273	.375*	.278	.397*	.202	.300	.482**	.099	.005	.315	.141	.444*	.321	.206	.489**	.342	.284	.333	.444*	.040	.311	.174	1	.545**
	Sig. (2-tailed)	.023	.182	.765	.166	.419	.024	.230	.753	.107	.033	.144	.041	.137	.030	.284	.108	.007	.602	.979	.090	.456	.014	.084	.275	.006	.065	.129	.072	.014	.835	.094	.358		.002
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

Performance	Pearson Correlation	.558**	.488**	.531**	.484**	.461*	.477**	.507**	.451*	.425*	.661**	.551**	.639**	.613**	.420*	.683**	.412*	.641**	.617**	.590**	.654**	.506**	.524**	.511**	.600**	.609**	.698**	.466**	.505**	.539**	.541**	.625**	.504**	.545**	1
	Sig. (2-tailed)	.001	.006	.003	.007	.010	.008	.004	.012	.019	.000	.002	.000	.000	.021	.000	.024	.000	.000	.001	.000	.004	.003	.004	.000	.000	.000	.009	.004	.002	.002	.000	.005	.002	
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

Performance Reliability Test

Reliability Statistics	
Cronbach's Alpha	N of Items
.925	33