EFFECTS OF PRODUCT QUALITY, SERVICE QUALITY, APPLICATION QUALITY, AND FAMILIARITY ON TRUST IN E-COMMERCE AND PURCHASE INTENTION

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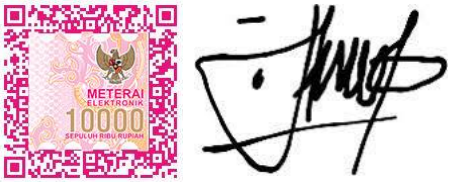
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CHAPTER I

INTRODUCTION

1.1 Background

With rapid technological advancements, all technological goods undergo rapid changes according to individual lifestyles. One example is the existence of smartphones and the Internet, which have significantly improved human communication. Various kinds of communication media have emerged to facilitate human interaction. Along with the progression of time, internet technology has become a necessity for society. Consequently, internet usage has continued to increase over the past two decades. In 2019, out of a global population of 7.676, 4.388 billion people used the Internet, with 3.484 billion being active social media users and 3.256 billion accessing the Internet via mobile phones (Kemp, 2019).

The advancement of technology has made individuals currently dependent on smartphones, which has directly impacted the demand for these devices. This dependency allows users to use the Internet as a medium for online shopping, especially through e-commerce, which refers to trade conducted through electronic media on the Internet. In this context, sellers and buyers do not interact face-to-face but instead use electronic media or the Internet as a liaison and communication media through mobile applications. Consequently, it creates new challenges for intermediaries in influencing purchase intentions, prompting companies to leverage e-commerce technology effectively. E-commerce involves the distribution, sale, purchase, and marketing goods

or services that rely on electronic systems such as the Internet, TV, or other technological networks. Today, e-commerce is one of the most widely used trading models. This popularity is driven by changes in shopping patterns and internet usage. Society's growing preference for online shopping benefits many producers, allowing them to sell products or services online without the need for physical stores. This enables businesses to market their offerings to consumers anytime and anywhere. Therefore, mobile e-commerce applications can influence customers' purchase intentions based on product quality, service quality, application, and familiarity with the e-commerce application itself.

Online shopping is a process where consumers can directly purchase goods, services, or other products from sellers through the Internet without the need for physical intermediaries like conventional stores. It enables consumers to make interactive and real-time purchases using electronic devices such as computers, smartphones, or tablets. Through e-commerce platforms such as websites or applications, consumers can explore various products, compare prices, read customer reviews, and make online payments.

Online shopping has become popular due to its ease, convenience, and high accessibility, allowing consumers to make transactions anytime and anywhere without visiting physical stores. In Indonesia, there are several e-commerce companies, one of which is Shopee, established in 2015. Currently, Shopee ranks as the top mobile application in the shopping category. It is an application that engages in online buying and selling and can be accessed easily by smartphone. In addition to catering to buyers,

Shopee also facilitates sellers by efficiently marketing their products, providing secure payment processes, and offering integrated logistics arrangements for buyers. Shopee operates under SEA Group, formerly known as Garena, a leading internet company in Southeast Asia. While Shopee is the most downloaded e-commerce application in Indonesia, it currently ranks fourth in terms of monthly visitor numbers.

In relation to online business, some literature emphasizes that trust is the most critical aspect. Trust will likely be able to drive customer purchases. Key factors in building trust include product quality, service quality, platform quality, and familiarity (Pasaribu, Sari, Bulan, & Astuty, 2022; Diputra & Yasa, 2021; Zaid, 2020; Mittendorf, 2018). The first is product quality, which plays a significant role in influencing consumers' product choices. In every company that sells a product, the quality of the product offered will be an important factor affecting consumer evaluation, as well as their satisfaction and loyalty. To achieve customer satisfaction aimed at fostering loyalty, one essential aspect to focus on is the quality of the products produced. Satisfaction reflects an individual's assessment of a product's performance against expectations. Customers feel dissatisfied and disappointed if the product fails to meet expectations. If the product's performance matches expectations, customers feel satisfied. If the product's performance exceeds expectations, customers feel delighted (Diputra & Yasa, 2021; Cuong & Khoi, 2019). Thus, low quality will lead to dissatisfaction, which will negatively impact businesses as customers are likely to shift their preferences to competitors. good product quality directly affects the level of customer satisfaction. When this occurs consistently, it will result in consumers who

remain loyal to purchasing or using the product, a phenomenon referred to as consumer loyalty (Diputra & Yasa, 2021; Cuong & Khoi, 2019).

The second is service quality, which is crucial for a company's success. Service quality is the core of a company's value proposition, assessed based on customer satisfaction, which must be considered so that the company operates optimally. service quality is the prime indicator of customer satisfaction. Companies face increasingly competition and increasing customer demand for better service (Pasaribu, Sari, Bulan, & Astuty, 2022; Rehman, Hussain, & Ghafoor, 2020; Cuong & Khoi, 2019). Customer satisfaction relates to individuals who pay for and use goods or services (Diputra & Yasa, 2021; Cuong & Khoi, 2019; Pasaribu et al., 2022). Service quality and customer satisfaction significantly contribute to the success and sustainability of a business (Pasaribu et al., 2022; Rehman, Hussain, & Ghafoor, 2020; Diputra & Yasa, 2021). studied the impact of website quality on customer satisfaction and purchase intention, with perceived playfulness and perceived flow as mediators (Chen, Zhao, & Wang, 2022).

The third aspect is brand familiarity. emphasized the importance of brand familiarity. The role of a product's brand is to differentiate a company's products from those of its competitors (Zaid, 2020; Surjaatmadja & Purnawan, 2018; Mittendorf, 2018). Companies strive to introduce their product brands to the market to increase recognition and make consumers highly familiar with the brand. explain that familiarity significantly influences purchase intention. Customer familiarity also influences consumers' intention to repurchase (Zaid, 2020; Mittendorf, 2018). When consumers

understand the products offered and feel satisfied with them, they are more likely to make repeat purchases from the same company (Diputra & Yasa, 2021; Zaid, 2020; Cuong & Khoi, 2019). "Brand familiarity with a well-known brand will have a greater influence on consumers' purchase intentions compared to an unfamiliar brand." (Zaid, 2020; Mittendorf, 2018).

Another important aspect is application quality, which ensures that consumers feel facilitated by the features available within the application. Application quality focuses on user-friendliness and the quality of information presented in the application. Argued that the quality of an application system reflects the characteristics of the information inherent to the system itself. Application system quality refers to how well the hardware, software, and policy procedures of the information system can meet users' informational needs (Olsina & Lew, 2018; Gill et al., 2021). In today's modern era, application quality is a key factor in e-commerce businesses to attract consumers' attention. For example, with the ease of accessing applications, companies can monitor employees through consumer feedback on the service provided by staff. Therefore, application quality has a significant impact on the company's success.

Several studies emphasize that these aspects can foster consumer trust, which in turn can increase purchase intention (Dabbous, Barakat, & Sayegh, 2020; Wang et al., 2022; Shidqi & Noor, 2019). One of the key factors for successful e-commerce transactions is the existence of trust between sellers and buyers. This becomes a significant consideration for sellers and buyers who neither know each other nor even engage in face-to-face transactions. When buyers search for products or services that

suit his needs, they must evaluate the credibility of the online marketplace. A study conducted by Kaspersky Lab and B2B International revealed that Indonesia had the highest number of online fraud victims, with 26% of online consumers affected (Kaspersky Lab & B2B International, 2016). followed by Vietnam in second place, and India in third. The study also found that online fraud leads to financial losses due to the disclosure of sensitive information and financial data. It forces consumers to exercise extreme caution when conducting online transactions. Thus, trust is one of the important factors in e-commerce businesses. Trust in websites will lead to purchase intentions (Wang, Shahzad, Ahmad, Abdullah, & Hassan, 2022; Dabbous, Barakat, & Sayegh, 2020; Shidqi & Noor, 2019). According to their research, trust in websites has an important role in influencing purchase intention. Previous studies found that trust in social networking sites also positively impacts purchase intention (Wang et al., 2022; Manzil & Vania, 2023).

This research aims to analyze the factors that influence consumers' purchase intentions based on their evaluation of using the Shopee application. This study will examine the relationship between antecedents of trust in online shopping and purchase intentions, particularly the connection between product quality, service quality, application quality, and familiarity with trust in online shopping. In addition, it will also analyze the effect of trust on online purchase intentions.

1.2. Problem Formulations

The following are some specific issues to be investigated in this research:

1. Does product quality have an impact on trust in e-commerce?
2. Does service quality have an impact on trust in e-commerce?
3. Does familiarity have an impact on trust in e-commerce?
4. Does application quality have an impact on trust in e-commerce?
5. Does trust in e-commerce have an impact on purchase intention?

1.3. Research Objectives

Having formulated the research problems, there are five research objectives to be achieved:

1. To examine and analyze whether product quality impacts trust in e-commerce.
2. To examine and analyze whether service quality impacts trust in e-commerce.
3. To examine and analyze whether familiarity impacts trust in e-commerce.
4. To examine and analyze whether application quality impacts trust in e-commerce.
5. To examine and analyze whether trust in e-commerce impacts purchase intention.

1.4 Research Contributions

1.4.1. Theoretical Contribution

This research provides benefits theoretically. It helps enrich the literature review related to the theoretical framework of e-commerce as a mobile device application that can attract customer purchase intention. On the other hand, it can help users by recognizing the components that influence consumer purchase intention in utilizing e-commerce services based on product quality and the quality of Shopee application. It also contributes to further research and literature in the field of marketing.

1.4.2. Practical Contribution

While its theoretical contribution, this research study also provides benefits practically. This research can assist companies and e-commerce organizations in understanding the factors that can build customer trust when shopping through an application. Additionally, it can help analyze customer preferences and perceptions while providing insights into the features and concepts of e-commerce applications that can enhance customer trust. With a better understanding of customer needs and expectations, companies can develop more effective strategies to build trust and enhance the customer experience.

CHAPTER II

LITERATURE REVIEW

2.1. Grand Theory

This research uses the Technology Acceptance Model (TAM), which is is an information systems theory that explains how to encourage users to accept and utilize new technology (Alfarizi, 2022). This study presents previous research on the relationship between product quality, service quality, familiarity, and application quality, as well as the mediating role of trust in online shopping and the moderating role of perceived risk between trust and purchase intention. By reviewing prior studies, the researcher can gain a better understanding of the indicators used in a study and make comparisons for future research.

In e-commerce, purchase intention refers to the likelihood or intention of customers to make purchases through online platforms. It specifically relates to the intention to engage in online transactions and complete the purchase process. Trust in websites plays a significant role in influencing purchase intention in e-commerce. When customers trust a website, they are more likely to have a higher intention to purchase.

Purchase intention refers to the combination of a consumer's interest in a brand or a product and the likelihood of purchasing the item (Dabbous, Barakat, & Sayegh, 2020; Pasaribu, Sari, Bulan, & Astuty, 2022; Manzil & Vania, 2023). Purchase intention reflects three statements: consumers' willingness to consider the act of

buying, the intention to purchase in the future, and the intention to repurchase (Zaid, 2020; Dabbous, Barakat, & Sayegh, 2020; Manzil & Vania, 2023). Additionally, it is a part of the customer's cognitive behavior as it shows how customers are expected to acquire a particular brand. Therefore, it a natural step preceding actual purchasing behavior (Dabbous & Barakat, 2020).

2.1.1 Product Quality

Product quality is a critical factor in building customer trust in e-commerce. When customers make purchases, they expect the product to meet their expectations and perform as advertised. High-quality products can satisfy customers and demonstrate the company's commitment to delivering value. For every company that sells a product, the quality of the product is one of the important factors that will influence consumer evaluations and affect customer satisfaction as well as loyalty. To achieve customer satisfaction, which aims to create customer loyalty, product quality must be a key focus. When buying a product, its quality becomes a primary concern for consumers or customers as buyers. Product quality refers to how well a product meets customer needs, fulfills its objectives/benefits, and adheres to industry standards. A business considers several key factors when evaluating product quality, such as whether a product solves a problem, works efficiently, or meets customer expectations. Since consumers are typically sensitive to the quality of services and products in demand (Diputra & Yasa, 2021; Pasaribu et al., 2022; Rehman, Hussain, & Ghafoor, 2020). Inconsistent product quality has a significantly negative impact on consumer consumption experiences, thus affecting market demand and the development of platforms. As a result, the sharing economy service providers significantly suffer from

volatile product quality issues. The importance of quality control in the sharing economy system has also been recognized in the research domain. Several studies show that it is optimal for service providers to strategically improve product quality to achieve higher market profits (Wen & Siqin, 2019; Diputra & Yasa, 2021).However, efforts to improve quality inevitably incur substantial costs, which restrict the benefits of the increased demand brought by higher product quality. Therefore, the sharing economy platforms nowadays are keen to identify the optimal product quality levels they should provide for consumers in order to maximize their profits. Satisfaction reflects one's assessment of the perceived performance of a product (or outcomes) in relation to expectations. If the product fails to meet expectations, customers are dissatisfied and disappointed. If product performance matches expectations, the customer is satisfied. If product performance exceeds expectations, the customer experiences delight or heightened satisfaction (Diputra & Yasa, 2021; Cuong & Khoi, 2019).

To put it another way, low quality will lead to dissatisfaction, which in turn has a negative impact as dissatisfied customers will turn to competitors. Good product quality will directly affect the level of customer satisfaction, and if sustained over time, it will result in consumers consistently purchasing or using the product, which is called consumer loyalty (Diputra & Yasa, 2021; Cuong & Khoi, 2019). This illustrates the relationship between product quality, customer satisfaction, and customer loyalty.

2.1.2. Service Quality

Service quality is another crucial factor in building customer trust in e-commerce. It refers to customers' overall experience when interacting with a company throughout their buying journey. Scholars have suggested that service quality consists of three sub-dimensions: interaction quality, environmental quality, and outcome quality (Rehman, Hussain, & Ghafoor, 2020; Pasaribu, Sari, Bulan, & Astuty, 2022). The quality of interaction refers to consumers' evaluation of their interaction with staff; environmental quality refers to their assessment of the overall store atmosphere; while outcome quality relates to their evaluation of the shopping experience at the store. Service quality is one of the important factors that influence consumer decisions. Therefore, there is a relationship between service quality and purchase intentions (Pasaribu et al., 2022; Rehman, Hussain, & Ghafoor, 2020; Harjadi, Suhardi, & Ayisiyah, 2019). To put it simply, better services lead to positive behavioral intentions and improve consumer purchase intentions and frequency of shopping at a store (Pasaribu et al., 2022; Cuong & Khoi, 2019; Rehman, Hussain, & Ghafoor, 2020). This shows that when a store provides high quality service, customer satisfaction with the store will increase, subsequently enhancing their intention to purchase private-label products.

Service quality refers to a combination of the service level from providers and consumer expectations. Consumer expectations include the ability to order products anywhere, use various payment methods, receive guarantees, the punctuality of product delivery, and more. The service sector also includes :

1. Reliability. It refers the ability to deliver promised services that are promised to consumers promptly, accurately, and satisfactorily. It reflects the competence of human resources, including staff and employees, in meeting service expectations.

2. Assurance. This is a form of guarantee that companies can provide to their customers, such as after-sales services, consistency, and customer satisfaction, especially when providing data and information to consumers.

3. Empathy. This is demonstrated through the provider's attentiveness to consumers, shown in the form of suggestions and feedback, comments and responses that the provider acknowledges and addresses.

Thus, service quality will greatly determine customer satisfaction. Satisfied consumers are more likely to engage in repeat transactions, while dissatisfied consumers may discontinue using the application or switch to competitors.

2.1.3. Familiarity

Researchers explain that familiarity has a significant influence on perceived risk and purchase intention (Zaid, 2020; Mittendorf, 2018). Consumers who are familiar with and have information about a brand feel confident about the attributes and benefits of the product, thereby perceiving the risks associated with the product as low (Zaid, 2020; Mittendorf, 2018). When customers are familiar with a product, brand, or company, they tend to feel more comfortable and confident in making purchase decisions. Familiarity plays a significant role in shaping purchase intention.

Building brand awareness, providing positive customer experiences, and nurturing brand loyalty are key strategies to enhance familiarity and drive purchase intentions in e-commerce.

The level of familiarity with an online shopping platform such as Shopee can be a significant factor influencing consumer decisions to shop on that platform. Familiarity encompasses understanding and previous experiences with the platform, including comfort level, trust, and habitual usage. Here are several reasons why familiarity can influence consumer decisions when shopping online on Shopee:

1. Trust: If consumers have had positive experiences with Shopee in terms of product quality, customer service, or delivery speed, they are more likely to have higher trust in the platform. This trust provides a sense of security and confidence for consumers to make online purchases on Shopee.
2. User-Friendliness: If consumers are familiar with the interface and features of Shopee, they are more likely to feel more comfortable and confident in navigating, finding products, and completing the purchasing process. To put it another way, familiarity with the layout, payment system, and shipping methods can make Shopee's online shopping experience more convenient and efficient.
3. Recommendations and Reviews: Familiarity with Shopee also relates to

Experiences of viewing product recommendations and reviews from other consumers. Consumers who have frequently used Shopee may have more trust in

product reviews, seller ratings, and recommendations available on the platform. This familiarity can provide additional confidence in making purchasing decisions.

2.1.4 Application Quality

Application quality refers to the level of performance, functionality, usability, and reliability of a mobile or web application. It plays a crucial role in shaping customer perception and influencing their purchase intention in the context of e-commerce. By focusing on delivering high-quality applications, e-commerce companies can provide a positive user experience, build trust with customers, and increase their purchase intention. Regular updates, user testing, and incorporating customer feedback are essential for continuously improving the application quality and meeting customer expectations.

Literature studies show that the quality of e-commerce applications, including user interface, performance, reliability, security, and other features, has a significant impact on the level of consumer trust in the platform. Consumers tend to trust platforms that offer easy-to-use, efficient, and reliable applications (Shankar, 2022). Specifically, an intuitive and easy-to-use user interface (UI) is a key factor in shaping consumer trust. In addition, e-commerce applications with a clean design, clear navigation, and consistent organization will increase the level of consumer confidence in the platform (Gill et al., 2021).

Furthermore, the performance quality and reliability of an application also play an important role in building consumer trust. Applications that are responsive, fast, and not prone to glitches or technical errors will provide a more positive experience for consumers and strengthen their trust in the platform (Olsina & Lew, 2018; Gill et al.,

2021). Another critical factor includes data and transaction security that play an important role too in building consumer trust in e-commerce platforms.

2.1.5 Trust in E-commerce

Trust in the online environment has gained significant attention in research with the rise of online transactions and the increasing popularity of e-commerce. A lack of trust is a major barrier to the adoption of e-commerce (Wang et al., 2022; Mayayise, 2024; Dabbous, Barakat, & Sayegh, 2020), because trust is the main foundation in online transactions, where sellers and buyers do not meet face to face. The reasons why this is a major barrier are uncertainty about product authenticity, risk of fraud, personal security, and untrusted reviews/ratings.

Trust is the willingness of one party to be vulnerable to the actions of another party based on the expectation that one party will take certain actions that are important to the first party regardless of the ability to control the other party (Mayer, Davis, & Schoorman, 1995, as cited in Wang et al., 2022; Dabbous et al., 2020). Many researchers stated that trust is a multidimensional concept (Wang et al., 2022; Dabbous, Barakat, & Sayegh, 2020; Mayayise, 2024). However, in general, trust consists of three dimensions: integrity, ability, and benevolence (Mayer, Davis, & Schoorman, 1995, as cited in Wang et al., 2022; Mayayise, 2024). By focusing on these dimensions, e-commerce companies can create a positive and trustworthy environment for customers, leading to increased customer confidence, loyalty, and repeat purchases.

2.1.6 Purchase Intention

Purchase intention refers to the psychological state or inclination of consumers to buy a product or service. It represents an individual's intention or plan to buy a

specific item in the near future. Purchase intention is shaped through a learning process and cognitive evaluation that forms a perception. The intention to make a purchase creates a motivation that remains imprinted in the consumer's mind, eventually becoming a compelling activity. When consumers must fulfill their needs, they actualize what is ingrained in their thoughts. Thus, purchase intention arises during the decision-making process. In e-commerce, purchase intention refers to the likelihood or intent of customers to make purchases through online platforms. It specifically relates to their willingness to engage in online transactions and complete the purchase process.

2.2. Hypothesis Formulation

2.2.1. Product Quality and Trust in E-commerce

Offering good quality products and providing benefits to customers can indeed have a positive effect on customer trust, particularly in the context of online shopping. For every company that sells a product, product quality is a key factor that will influence consumer evaluations, affect their satisfaction as well as loyalty. The importance of product quality lies in the grounds that it will be one of the main concerns of consumers or customers as buyers.

Product quality will greatly affect customer satisfaction and trust in making repeat purchases of the offered products as the main purpose of buying a product is to get one that meets consumer expectations. Trust pertains to the intention to continue using and relying on e-commerce platforms (Diputra & Yasa, 2021; Pasaribu et al., 2022; Wang et al., 2022). Customer trust is the confidence, belief, and knowledge consumers have about an object or product related to its various attributes and benefits.

To maintain customer loyalty, companies do not only rely on customer satisfaction; trust serves as a key intermediary in building successful exchange relationships to foster high customer loyalty. Trust significantly influences e-commerce transactions between consumers, impacting buying behavior due to the prevalence of online fraud (Mayayise, 2024; Wang et al., 2022; Shidqi & Noor, 2019).

If the product offered matches consumer expectations, they will be satisfied and return to make repeat purchases. To put it simply, to create customer satisfaction, a company must be able to offer quality products and services. According to the seller's description, the customer is satisfied with the quality received, which fosters a sense of trust in the seller. Hypothesis 1 is then proposed as follows.

H1. Product quality has a positive impact on trust in e-commerce.

2.2.2. Service Quality and Trust in E-commerce

Service quality plays a significant role in building customer trust in online shopping. When customers have positive experiences with a brand's services, it enhances their confidence in the brand and increases their trust in conducting transactions online. Businesses that prioritize delivering excellent services are more likely to gain trust of their customers, leading to repeat purchases, positive word-of-mouth, and long-term loyalty. Several studies state that most online selling platforms gain customer trust and build long-term relationships by providing high-quality services (Pasaribu et al., 2022; Gill et al., 2021; Rehman, Hussain, & Ghafoor, 2020). Studies have stated that service quality perception affects the acceptance of online shopping. Additionally, a significant relationship has been found between perceived

retailer service quality and trust (Pasaribu et al., 2022; Rehman, Hussain, & Ghafoor, 2020; Shankar, 2022).

In the online shopping environment, where customers cannot physically see or touch the products and interact with sellers directly, trust becomes increasingly crucial. Indeed, trust is a prerequisite for consumers to engage in online shopping. With trust, consumers are willing to proceed with transactions despite uncertainties (Wang et al., 2022; Mayayise, 2024; Dabbous, Barakat, & Sayegh, 2020). However, the impact of service quality on trust is particularly significant within the scope of online business. Numerous studies have highlighted the positive relationship between service quality and trust in the context of e-commerce. Based on the discussion about the positive impact of service quality on trust in online business, the hypothesis 2 is proposed:

H2. Service quality has a positive impact on trust in e-commerce

2.2.3. Familiarity and Trust in E-commerce

When customers are familiar with an online retailer or have previous experiences with them, it can positively influence their level of trust. In addition, customer familiarity also leads to repurchasing intentions. Customer familiarity refers to the knowledge and awareness customers have about a product, as reported by the consumers themselves (Zaid, 2020; Mittendorf, 2018). Consumers who have a good understanding of the offered product and are satisfied with it are more likely to make repeat purchases from the same company (Diputra & Yasa, 2021; Zaid, 2020; Cuong & Khoi, 2019).

Studies on product familiarity defined familiarity as a number of product-related experiences that lead to the development of attitudes toward a product and

subsequent purchase and purchase intentions (Zaid, 2020; Mittendorf, 2018). As experience with a product increases, both consumers' product knowledge and product familiarity also grow. Consumers assess the perceived risks of the product before making a purchase decision. When they consumers are well-informed about a product, they can better understand its quality and consider alternative options, thereby reducing the possible perceived risks associated with purchasing the product. Thus, consumers with a higher familiarity level will be able to evaluate the product better. Familiarity also increases the consumers' confidence in the product, leading improved product evaluations. In the context of online shopping and e-commerce, familiarity significantly influences consumer trust, ultimately impacting their purchase decisions(Zaid, 2020; Mittendorf, 2018). Based on the discussion, hypothesis 3 is proposed as follows:

H3. Familiarity has a positive impact on trust in e-commerce

2.2.4. Application Quality and Trust in E-commerce

A well-designed and high-quality application can significantly influence how customers perceive and trust an e-commerce platform. High-quality applications usually attract the most user attention, mainly through a high number of positive reviews and downloads from users. This, in turn, can lead to higher revenue and stronger competitiveness for the platform.

Alfarizi (2022) emphasizes that the better the quality of the application, the more public acceptance of the application, and then people will trust and rely on the application in their daily use. Researchers found that application quality is characterized by features that are beneficial to consumers (Olsina & Lew, 2018; Gill et

al., 2021). Therefore, to achieve good quality, it is essential to provide well-designed features that increase consumer confidence.

Literature studies show that the quality of e-commerce applications, including user interface, performance, reliability, security, and other features, has a significant impact on the level of consumer trust in the platform. Consumers tend to have more trust in platforms that offer easy-to-use, efficient, and reliable applications (Shankar, 2022).

H4. Application quality has a positive impact on trust in e-commerce

2.2.5. Trust in E-commerce and Purchase Intention

Trust in e-commerce refers to the confidence and belief that customers have in online platforms when conducting online transactions. It is a fundamental aspect of the online shopping experience and plays a significant role in the success and growth of e-commerce businesses. Trust also influences purchase intention. When customers trust a brand, product, or e-commerce platform, they are more likely to have positive purchase intentions and proceed with their purchases. Additionaly, when they trust a product, brand, or e-commerce platform, they have confidence in its quality, perceive lower risks, and are influenced by social proof. Transparent information, effective communication, brand reputation, and personalized experiences all contribute to building trust and positively impact purchase intention.

Trust is the basis for consumer decision-making regarding whether to make a purchase, making it the first aspect that companies must successfully establish with their consumers (Mahliza, 2020). Wang et al. (2022) also emphasized that trust in a platform also plays an important role in increasing consumer purchases. However,

research by Manzil and Vania (2023) found different findings that trust has no effect on purchasing decisions. Nevertheless, this study address this gap and emphasizes the effect of trust on purchase intention. It can be concluded that research in reputable journals indicates that consumer trust can increase purchase intentions through various mechanisms, including perceived security, prior satisfaction, brand reputation, transparent communication, user recommendations, and social interactions. Thus, hypothesis 5 is proposed as follows.

H5. Trust in e-commerce has a positive impact on purchase intention

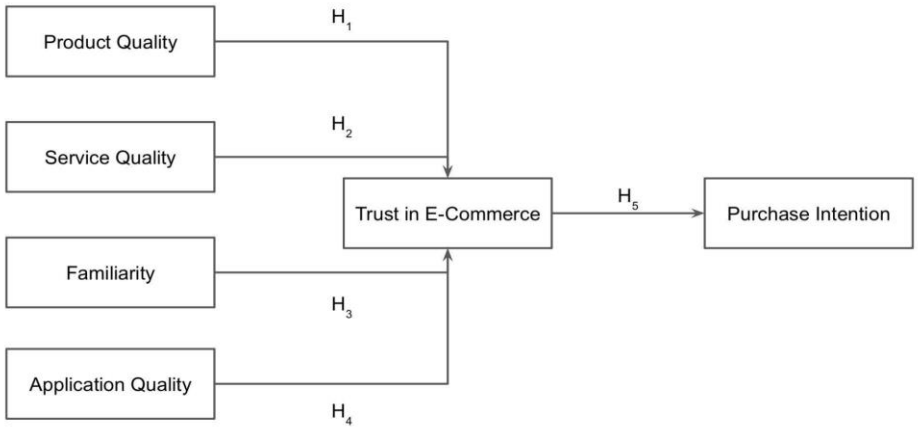
2.2.6. Purchase Intention

The quality of services and products is a crucial factor that significantly influences consumer evaluations and decision-making. When consumers assess the quality of services and products, it helps them determine their satisfaction levels and perceived value, ultimately impacting their purchasing decisions. When customers trust a product, brand, or e-commerce platform, they have confidence in its quality, perceive lower risks, and are influenced by social proof. Transparent information, effective communication, brand reputation, and personalized experiences all contribute to building trust and positively impact purchase intention.

In summary, placing a primary focus on product quality is crucial for a company's success. It leads to greater customer satisfaction, builds trust and reputation, fosters customer loyalty, provides a competitive advantage, increases buying intentions, generates positive word-of-mouth promotion, and reduces costs. By prioritizing and delivering high-quality products, companies can create a strong foundation for customer-centric growth and success.

2.3. Conceptual Framework

Figure 2.1 Conceptual Framework of the Study



With some improvements to align with the objectives of this study, the framework comprises four distinct variables: product quality, service quality, familiarity, and application quality (Diputra & Yasa, 2021; Pasaribu et al., 2022; Zaid, 2020; Olsina & Lew, 2018). These variables collectively influence the mediating variable, trust in e-commerce, which is affected by product quality, service quality, familiarity, and application quality. Lastly, the framework includes the dependent

variable, purchase intention, which is influenced by both the mediating variable and the four independent variables.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Research Location

This research study was conducted in Universitas Islam Indonesia, situated in Yogyakarta's Sleman Regency. One of Indonesia's largest provinces, Yogyakarta, is called the "city of students." It is home to a significant number of educational institutions, which demonstrates why students from all over Indonesia gather in this city. This study makes use of a survey approach by distributing online questionnaires to social media users who meet the required classification criteria.

3.2 Population and Sample

Population usually refers to the entire group that is the subject of a study. The researcher can examine each member of the population to determine the nature of the population. In this research study, the population consists of students at Universitas Islam Indonesia who have a Shopee account and actively use Shopee to shop for various needs.

A sample is a subset of the population with certain characteristics or criteria. Samples are selected to represent a larger population. This is often done because it may be impractical or impossible to study the entire population due to constraints such as time, resources, or logistics. The research sample is about the number of individuals with certain characteristics from the population who share the same traits as the borader population.

The following characteristics serve as the basis for several criteria used to select respondents in this study:

1. UII's active students
2. Aged between 16-35 years old
3. Having a Shopee account
4. Having experience of shopping on Shopee

In determining the sample size, the formula suggested by experts is applied, which notes that an excessively large sample size can make it challenging to achieve a suitable model (Hair, Black, Babin, & Anderson, 2010). A recommended sample size ranges between 100 to 200 respondents to enable proper estimation and interpretation using the Structural Equation Model (SEM).

In this study, the sample size will be determined based on the calculation of the minimum sample required. The minimum sample size for Structural Equation Modeling (SEM) is generally determined by multiplying the number of indicators by 5 to 10 times. Since this study uses 28 indicators, the minimum sample size required ranges between 140 and 280 respondents (Hair, Black, Babin, & Anderson, 2010); therefore based on this guideline, the minimum sample size is calculated as follows:

Minimum sample size = 28 x 10 = 280 respondents.

Based on the formula above, the minimum sample size in this study is 280 respondents. However, this study will use a sample size of approximately 305 respondents, which exceeds the minimum limit of the respondents required.

Sample size :

Minimum = (number of indicators + number of variables) x 5

= (28 + 6) x 5

= 170

Maximum = (number of indicators + number of variables) x 10

= (28 + 6) x 10

= 340

3.3 Identification of Research Variable

1. The first hypothesis in this study is that Shopee's product quality has a positive effect on trust in e-commerce, as perceived by account users. The factors to be measured to test this hypothesis empirically are:

   Independent variable: Product Quality

   Intervening variable: Trust in E-commerce

2. The second hypothesis in this study is that Shopee's service quality has a positive effect on trust in e-commerce, as perceived by account users. The factors to be measured in order to test this hypothesis empirically are:

   Independent variable: Service Quality

   Intervening variable: Trust in E-commerce

3. The third hypothesis in this study is that the familiarity of Shopee has a positive effect on trust in e-commerce, as perceived by account users. The factors to be measured in order to test this hypothesis empirically are:

   Independent variable: Familiarity

   Intervening variable: Trust in E-commerce

4. The fourth hypothesis in this study is that Shopee's application quality has a positive effect on trust in e-commerce, as perceived by account users. The factors to be measured in order to test this hypothesis empirically are:

   Independent variable: Application Quality

   Intervening variable: Trust in E-commerce

5. The fifth hypothesis in this study is that trust in Shopee's e-commerce has a positive effect on purchase intention, as perceived by account users. The factors to be measured in order to test this hypothesis empirically are:

   Independent variable: Trust in E-commerce

   Intervening variable: Purchase intention

3.4 Operational Definition of the Variables and Research Measurement

Variable Operationalization of variables is necessary in research to determine the types and indicators of the related variables and also aims to determine the measurement scale for each variable. The variables in this research study consist of four independent variables - product quality, service quality, familiarity, and application quality; one dependent variable – purchase intentions; and one intervening variable - trust in E-commerce. The following are the operational definitions and specifics of each of these variables' measurements:

3.4.1 Product Quality

Product quality influences customer satisfaction and their decision to repurchase the offered products. To put it simply, when the product aligns with customers' expectation, they will be satisfied and make repeat purchases. In terms of

product quality, consumers will also evaluate the quality of the products and whether the products match their needs and desires. Some researchers stated that quality is characterized as utilization or the degree to which a product effectively serves the customer's purposes (Diputra & Yasa, 2021; Wen & Siqin, 2019). Superior quality is crucial in ensuring customer confidence and sustaining a company's market leadership. In a dynamic business environment, companies must continuously innovate their product offerings and update the technologies used to enhance product quality. Product quality encompasses the physical condition, attributes, and performance of a product, whether goods or services, based on durability, reliability, ease of use, compatibility, reparability, and other components designed to meet customer satisfaction and needs. Thus, high product quality will deliver customer satisfaction, which ultimately enhances customer loyalty to the product. This, in turn, allows companies to achieve substantial profits and maintain a competitive edge in the market. The product quality variable is measured through the following four indicators:

1. I shopped in Shopee Application because of the wide range of products offered.
2. I shopped in Shopee Application because Shopee provides good products, and the products on offer are appealing.
3. I shopped in Shopee Application because the item received matches the product description listed in the application.
4. I shopped in Shopee Application because Shopee offers complete product variants.
5. I shopped in Shopee Application because Shopee provides good products.

3.4.2 Service Quality

Service quality is the fulfillment of consumer needs in a satisfactory manner. Service quality refers to the extent to which a service meets or exceeds customer expectations. It is a critical aspect in achieving customer satisfaction and loyalty. Assessing service quality involves evaluating various dimensions or attributes associated with the service. There are five main elements that can be used to achieve customer satisfaction: reliability, responsiveness, assurance, tangibles, and empathy (Parasuraman, Zeithaml, & Berry, 1988, as cited in Rehman, Hussain, & Ghafoor, 2020; Pasaribu et al., 2022). These dimensions are often used as a framework to measure and improve service quality. Businesses and organizations use various methods, such as customer feedback surveys, to gather information on these dimensions and identify areas for improvement. Providing high service quality is essential for customer satisfaction, loyalty, and the overall success of service-oriented businesses. It involves a continuous process of understanding customer expectations, aligning services with those expectations, and consistently improving service delivery. Therefore, the following five indicators are used to measure the service quality variable:

1. Shopee delivers the correct items on time.
2. Shopee responds promptly and appropriately to customer request.
3. products are packaged according to my expectations.
4. Shopee provides insurance protection for misplaced or undelivered products.
5. Sellers on the Shopee Application can build good relationships with customers.

3.4.3 Familiarity

Familiarity in the context of consumer behavior and product perception refers to the degree to which consumers are acquainted with a brand, product, or service. According to Surjaatmadja & Purnawan (2018), familiarity refers to the amount of experience consumers have accumulated with a product or brand (). This experience includes exposure through advertising, interactions with sellers, word-of-mouth communication, product trials, and consumption (Zaid, 2020; Mittendorf, 2018). Familiarity is how a store is defined in the minds of consumers, partly through the functional qualities of the store and partly through the projection of psychological attributes (Surjaatmadja & Purnawan, 2018). Studies explain that familiarity significantly influences perceived risks and purchase intention (Zaid, 2020; Mittendorf, 2018). The indicators to measure familiarity variable are as follows :

1. I am familiar with Shopee
2. I am familiar with the purchasing process on Shopee
3. I am familiar with looking for items on Shopee
4. I am familiar with product brands available on Shopee.

3.4.4 Application Quality

As of my latest knowledge update in January 2022, Shopee was a popular e-commerce platform, especially in Southeast Asia. However, the specific quality of applications can change over time due to updates, improvements, or policy changes. Application quality generally refers to the overall standard or excellence of a software application. It encompasses various aspects that contribute to the application's effectiveness, reliability, and user satisfaction. Application quality, particularly in the

context of an online shopping platform such as Shopee, can significantly affect various aspects of the user experience, customer satisfaction, and the platform's overall success. The indicators to measure application quality variable are as follows :

1. Shopee carries out its functions accurately and efficiently.
2. Shopee performs consistently without errors or crashes.
3. Customers find it easy to interact with and navigate the application.
4. The application is easy to update, modify, or patch.
5. The Shopee application performs well and responds quickly to user inputs.

3.4.5 Trust in E-commerce

Trust is a crucial factor in the success of e-commerce platforms. Building and maintaining trust is essential for encouraging online shoppers to purchase, share personal information, and engage with e-commerce websites. Trust is defined as a willingness to rely on an exchange partner, where one has confidence and trust as a perception of “trust in the reliability and integrity of the exchange partner” (Wang et al., 2022; Dabbous, Barakat, & Sayegh, 2020). Trust is one of the most important components influencing the success of implementing network service environments, such as e-commerce, wireless sensor networks, and online social networking (Wang et al., 2022; Mayayise, 2024; Shidqi & Noor, 2019). Therefore, the following five indicators are used to measure the variable trust in the e-commerce:

1. The payment system in Shopee application is secure to protect customer data.
2. The Shopee application is trustworthy.
3. Customers using the Shopee app feel more confident when making transactions.

4. Customers can pay for products using the official payment gateway offered by the Shopee app.
5. The name of the Shopee Application is well known and has a good reputation.

3.4.6 Purchase Intention

Purchase intention refers to the likelihood or inclination of consumers to buy a particular product or service in the future. It is a key concept in consumer behavior and marketing research, providing insights into potential consumer actions. Purchase intention is characterized as a situation that manifests when consumers are willing and intend to engage in online transactions. It is also a decision consumers make to buy a product or service because they need or like the functions provided by the product or service (Dabbous, Barakat, & Sayegh, 2020; Wang et al., 2022). Purchase intention is also crucial in determining consumer behavior as it indicates the likelihood of consumers purchasing a product based on their understanding of the product within a specific scenario. Four indicators to measure purchase intention are:

1. I previously purchased products from Shopee.
2. I feel happy when I buy several products on the Shopee app.
3. I recommend Shopee to my friends and family.
4. In the future, I may conduct transactions using the Shopee App.

3.5 Data Collection Types and Techniques

This research study utilizes primary data, which refers to information obtained directly from the research subject using information-gathering tools. These tools collect

the necessary information from the subject being studied. Primary data is collected through the distribution of online questionnaires that include various question items related to each variable indicator. The data collection method employed in this study also relies on questionnaires.

3.6 Validity and Reliability Tests

Validity test indicates the extent to which a measurement (indicator) accurately measures what it is intended to measure (variable) (Hair, Black, Babin, & Anderson, 2010). An indicator is valid if it has a value of "corrected item-total correlation" ≥ 0.30. The reliability of the instrument is ensured through a Cronbach's alpha value that is acceptable if it is greater than 0.6.

3.6.1 Validity Test

The validity test is a tool used to measure whether a questionnaire is valid or invalid. The validity of a research instrument refers to the extent to which the instrument measures what it is designed to measure (Hair, Black, Babin, & Anderson, 2010). This test can be done by testing the significance of the measurement model parameters.

Table 3.1 Validity Test

Variables	**Indicator**	**r count**	**r table**	**Status**
Product Quality	PQ1	0.811	0.279	Valid
	PQ2	0.784	0.279	Valid
	PQ3	0.834	0.279	Valid
	PQ4	0.838	0.279	Valid

Variables	Indicator	r count	r table	Status
	PQ5	0.806	0.279	Valid
Service Quality	SQ1	0.803	0.279	Valid
	SQ2	0.844	0.279	Valid
	SQ3	0.730	0.279	Valid
	SQ4	0.845	0.279	Valid
	SQ5	0.783	0.279	Valid
Familiarity	F1	0.838	0.279	Valid
	F2	0.948	0.279	Valid
	F3	0.904	0.279	Valid
	F4	0.880	0.279	Valid
Application Quality	AQ1	0.913	0.279	Valid
	AQ2	0.894	0.279	Valid
	AQ3	0.809	0.279	Valid
	AQ4	0.937	0.279	Valid
	AQ5	0.899	0.279	Valid
Trust in e-Commerce	TE1	0.956	0.279	Valid
	TE2	0.920	0.279	Valid
	TE3	0.897	0.279	Valid
	TE4	0.896	0.279	Valid

Variables	Indicator	r count	r table	Status
	TE5	0.813	0.279	Valid
Purchase Intention	PI1	0.879	0.279	Valid
	PI2	0.918	0.279	Valid
	PI3	0.831	0.279	Valid
	PI4	0.903	0.279	Valid

Based on the results of the validity test performed on 50 samples, it is evident that all question items possess values higher than the r table value, which is 0.2787. Therefore, the questions included in the study can be deemed valid.

3.6.2 Reliability Test

Reliability is the level of reliability of the questionnaire. A reliable questionnaire is one that, if tested repeatedly on the same group, will produce the same data. The assumption is that respondents have no psychological changes (Hair, Black, Babin, & Anderson, 2010). The method used in this reliability test is the alpha technique. If the Cronbach's Alpha value is greater than 0.6, then the instrument can be declared reliable (Hair, Black, Babin, & Anderson, 2010).

Table 3.2. Reliability Analysis

Variables	Cronbach's Alpha	Standard Cronbach's Alpha	Description
Product Quality	0.869	0.60	Reliable
Service Quality	0.860	0.60	Reliable
Familiarity	0.914	0.60	Reliable
Application Quality	0.932	0.60	Reliable
Trust in E-commerce	0.936	0.60	Reliable
Purchase Intention	0.903	0.60	Reliable

Based on the summary of the reliability test results in the table above, it can be seen that Cronbach's Alpha coefficient values for all variables are greater than 0.6. Thus, all the question items in this study are declared reliable, meaning that these questions can be used in further research.

3.7 Data Analysis Technique

Statistical analysis is an analysis using statistical techniques to prove the proposed hypotheses. The statistical analysis tool used in this research is Structural Equation Modeling (SEM), which combines two statistical methods: factor analysis and the simultaneous equation method (Hair, Black, Babin, & Anderson, 2010). The application program used in this research is AMOS 24.

There are several stages in SEM modeling, including model specification, identification, estimation, evaluation, and possible modification (Hair, Black, Babin, & Anderson, 2010) :

1. Theory-based model development

Researchers must conduct a series of reviews through literature to develop a theoretical model. A strong theoretical justification enhances the researcher's confidence in proposing a causal model by assuming a cause-and-effect relationships between variables.

2. Developing path diagrams and structural equations

The next step is to establish causal relationships using a path diagram and compile structural equations. The theoretical model that has been compiled is described in a path diagram to facilitate the visualization of the causal relationships to be tested. After the theoretical model is developed and described in a path diagram, the model specification is converted into a series of equations. At this stage, two tasks need to be performed: first, constructing a structural model that connects latent constructs (endogenous and exogenous) and then connecting these constructs with the existing indicator variables.

3. Selecting the type of input matrix and estimation of the proposed model

The further step is to determine the input data used in the calculation, which will be converted into a covariance or correlation matrix. The covariance matrix has the advantage of providing comparisons between different populations or samples, where its coefficients must be interpreted to form constructs. Meanwhile, the correlation matrix has a general range of 0 to 1, allowing for comparisons of coefficients. Some researchers prefer the covariance matrix as it is more suitable for observing causal relationships. Sample size is also one of the determinants in the calculations carried out to produce basic estimates of sampling error. The recommended minimum sample size

is 5 to 10 observations for each estimated parameter. If the estimated parameters total 20, the minimum sample size should be between 100 - 200. Once the input data has been developed, the researcher must determine the software program used for estimation, for example, AMOS 24.0.

4. Assessing structural model identification

The next stage is the identification problem, which describes whether or not the model can be resolved by setting more constraints on the model. If the solution of a structural parameter can be generated, it is called "identified" so that the model can be tested.

5. AMOS validity and reliability test

This stage is conducted to assess the unidimensionality and reliability of the constructs. Unidimensionality is an assumption of reliability calculations, demonstrated when the construct indicators exhibit an acceptable fit for a one-factor model. The approach used to assess the measurement model involves measuring composite reliability and the variance extracted for each construct. The generally accepted level of reliability is > 0.70, while a reliability < 0.70 is acceptable for exploratory research. At the same time, the recommended threshold for the variance extracted value is> 0.50. The formula for calculating construct reliability and the variance extracted is as follows:

$$Construct\ reliability = \frac{(\sum std\ loading)^2}{(\sum std\ loading)^2 + \sum \varepsilon j}$$

The assessment involves the significance of the coefficients. SEM provides the results of the estimated coefficient value, standard error, and critical value (cr) for each

coefficient. Using a specific significance (0.05), the significance of each coefficient can be assessed statistically.

6. Assessing Goodness-of-fit criteria

In this step, an assessment is conducted to evaluate the alignment between the measurement inputs used and the model's predictions, often referred to as goodness-of-fit. First, the data's conformity with the assumptions in SEM will be evaluated. After the SEM assumptions are evaluated, the next step is to determine the criteria used to evaluate the model and the effects shown in the model. This assessment measures how well the model explains the existing sample data (appropriate or fit) through several evaluations, as follows (Hair, Black, Babin, & Anderson, 2010) :

1. CMIN/DF represents the chi-square value divided by the degree of freedom. The ratio value for measuring fit is ≤ 2, indicating a good model fit (Hair, Black, Babin, & Anderson, 2010).

2. RMSEA: Root mean square error of approximation (RMSEA) is a measure that tries to correct the tendency of the chi-square statistic to reject models with large sample sizes. The acceptable RMSEA value is ≤ 0.08 (Ghozali, 2014).

3. Goodness of Fit Index (GFI) is a non-statistical measure whose values range from 0 (poor fit) to 1.0 (perfect fit). A high GFI value indicates a better fit. Many researchers recommend a value above 90% or ≥ 0.9 as a measure of fit (Hair, Black, Babin, & Anderson, 2010).

4. The Tucker-Lewis Index (TLI) is a measure that incorporates parsimony into a comparative index between the proposed model and the null model. The TLI value ranges from 0 to 1.0, with a recommended TLI value of ≥ 0.90 to indicate a good model fit (Hair, Black, Babin, & Anderson, 2010).

CHAPTER IV

DATA ANALYSIS AND DISCUSSION

4.1 Descriptive Analysis

Descriptive analysis is an approach that details and explains the relationships within research data in the form of sentences. This section will elaborate on the results of the descriptive analysis, covering the characteristics of respondents, which include gender, age, educational background, and the frequency of online shopping each month by respondents.

4.1.1 Gender of Respondents

The respondents are divided into two groups – male and female as described in Table 4.1.

Table 4. 1
Respondent Gender

Gender	Amount	Percentage
Man	62	20.3%
Women	243	79.7%
Total	305	100.0%

Source: Data processed 2024

Table 4.1 shows that the male respondents in this study totaled 62 individuals accounting for 20.3%, while the female respondents totaled 243 individuals, making up 79.7% of the 305 respondents in total.

4.1.2 Age of Respondents

This study also categorizes respondents based on age by distinguishing them into several age groups. The respondents' age grouping results are shown in Table 4.2 below.

Table 4. 2
Respondent Age

Age	Amount	Percentage
16 - 20 years old	120	39.3%
21 - 25 years old	170	55.7%
26 - 30 years old	14	4.6%
31 - 35 years old	1	0.3%
Total	305	100.0%

Source: Data processed 2024

Table 4.2 displays that the most respondents in this study are aged 21-25 years, with a total of 170 respondents, or 55.7% of the total respondents.

4.1.3 Educational Background of Respondents

The next grouping of respondents is based on their latest educational background as presented in table 4.3 below.

Table 4. 3
Respondent Education

Education	Amount	Percentage
Magister (S2)	4	1.3%
Sarjana (S1)	86	28.2%
SMA	212	69.5%
SMP	3	1.0%
Total	305	100.0%

Source: Data processed 2024

Table 4.3 shows that most respondents in this study have a high school education as their highest level of education, totaling 212 respondents or 69.5% of the total respondents. Furthermore, 86 respondents or 28.2% have a bachelor's degree as their highest level of education. Only three respondents have a junior high school education, and four respondents hold a master's degree.

4.1.4 Online Shopping Frequency of Respondents

The next grouping of respondents is based on the frequency of their online shopping within a month. The results of this categorization are shown in Table 4.4.

Table 4. 4
Respondents' Online Shopping Frequency

Frequency	Amount	Percentage
> 10 times	29	9.5%
1 - 3 times	161	52.8%
4 - 6 times	96	31.5%
7 - 10 times	19	6.2%
Total	305	100.0%

Source: Data processed 2024

From Table 4.4, it is known that the respondents in this study mostly shop online 1 - 3 times a month, totaling 161 respondents. Furthermore, 96 respondents shop online 4-6 times a month.

4.2 Respondents' Assessment of the Research Variables

Based on the data collected, respondents' assessment of the research variables consists of product quality, service quality, familiarity, application quality, trust in e-

commerce, and purchase intention. The assessment criteria use an interval scale to interpret responses, where values are categorized to reflect the level of agreement or evaluation (Sugiyono, 2017) :

$$\frac{\text{Ideal Maximum Value - Ideal Minimum Value}}{\text{Interval Class}}$$

So the intervals in the study are = (5-1 /5) = 0,8

Table 4. 5
Interval Scale Criteria

Range	Value
0 – 1.8	Very Low
1.81-2.61	Low
2.62-3.42	Enough
3.43-4.23	Good
4.24- 5	Very Good

In this study, there are six variables with 28 indicators. The product quality variable is measured by using five research indicators; then the service quality variable is measured by using five measurement indicators; the familiarity variable four indicators; the application quality variable five indicators; five indicators measure the trust variable, and four measurement indicators measure the purchase intention variable.

4.2.1 Respondents' Assessment of the Product Quality Variable

Product quality is consumers' perceptions of the quality of products sold through e-commerce platforms. The product quality variable is measured using five measurement indicators labeled PQ1, PQ2, PQ3, PQ4, and PQ5. The questionnaire results, processed using SPSS, summarize the respondents' evaluations as follows.

Table 6. Respondents' Assessment of Product Quality

	N	Minimum	Maximum	Sum	Mean	Assessment Criteria
PQ1	305	1	5	1431	4.69	Very Good
PQ2	305	1	5	1378	4.52	Very Good
PQ3	305	1	5	1220	4.00	Good
PQ4	305	1	5	1221	4.00	Good
PQ5	305	1	5	1239	4.06	Good

The highest-rated indicator is PQ1, followed by PQ2, both falling under the excellent category. These results indicate that the respondents strongly perceive that the variety of goods or products sold at Shopee is diverse and complete (PQ1) and that Shopee sells attractive products (PQ2). Other aspects include product suitability (PQ3), specification suitability (PQ4), and product usefulness and beauty (PQ5), which are good but still need to be improved.

4.2.2 Respondents' Assessment of the Service Quality Variable

The Service Quality variable is the quality of services provided by a company to consumers. This study measures service quality by five research indicators, labeled SQ1, SQ2, SQ3, SQ4, and SQ5. The questionnaire results, processed using SPSS are presented in Table 7.

Table 7. Respondents' Assessment of Service Quality

	N	Minimum	Maximum	Sum	Mean	Assessment Criteria
SQ1	305	1	5	1264	4.14	Good
SQ2	305	1	5	1235	4.05	Good
SQ3	305	1	5	1222	4.01	Good
SQ4	305	1	5	1255	4.11	Good
SQ5	305	1	5	1260	4.13	Good

Table 7 shows that all indicators are categorized good by the respondents. Among these indicators, SQ1 achieved the highest score with an average of 4.14. This finding indicates that product delivery to buyers has been carried out properly and on time (SQ1). Then the respondents also assessed that the products purchased by the respondents through the Shopee application were sent well, and the packing was also safe and neat (SQ5).

4.2.3 Respondents' Assessment of the Familiarity Variable

Familiarity refers to the recognition of e-commerce among the public. This variable shows the level of knowledge and understanding consumers have about the e-commerce application. The familiarity variable is measured using four measurement indicators, labeled F1, F2, F3, and F4. The results of the respondents' assessment of the familiarity variable are shown in Table 8.

Table 8. Respondents Assessment of Familiarity

	N	Minimum	Maximum	Sum	Mean	Assessment Criteria
F1	305	1	5	1326	4.35	Very Good
F2	305	1	5	1409	4.62	Very Good
F3	305	1	5	1441	4.72	Very Good
F4	305	1	5	1433	4.70	Very Good

Table 8 demonstrates that all indicators on the familiarity variable are categorized good by the respondents with an average value > 4.24. The results show that the indicator with the highest rating is F3, with an average of 4.72, which indicates that Shopee is an e-commerce that is very familiar to the public (F3). Furthermore, it is known that people, especially the respondents, are used to buying and using the Shopee application (F4).

4.2.4 Respondents' Assessment of Application Quality Variable

The application quality variable is the respondents' perception of the quality of the Shopee e-commerce application. This variable is measured by using five measurement indicators, labeled AQ1, AQ2, AQ3, AQ4, and AQ5. The results of the respondents' assessments on each indicator are presented in Table 9.

Table 9. Respondents' Assessment of Application Quality

	N	Minimum	Maximum	Sum	Mean	Assessment Criteria
AQ1	305	1	5	1407	4.61	Very Good
AQ2	305	1	5	1360	4.46	Very Good
AQ3	305	1	5	1276	4.18	Good
AQ4	305	1	5	1384	4.54	Very Good
AQ5	305	1	5	1326	4.35	Very Good

Table 9 shows that of the five indicators that measure the application quality variable, four indicators receive very good ratings, while one indicator receives a good rating. The highest-rated indicator is AQ1, with an average of 4.61 and a total score of 1,407. These results indicate that the Shopee application is easy for consumers to learn

and operate. Furthermore, the aspect that needs further development is the interface, which is already good but could be enhanced to be even more attractive.

4.2.5 Respondents' Assessment of the Trust in E-Commerce Variable

The trust in e-commerce variable is consumer confidence in using and making purchases through the Shopee application. This variable is measured by using five research indicators, labeled TE1, TE2, TE3, TE4, and TE5. The results of the respondents' assessments are displayed in Table 10.

Table 10. Respondent Assessment in Trust

	N	Minimum	Maximum	Sum	Mean	Assessment Criteria
TE1	305	1	5	1351	4.43	Very Good
TE2	305	1	5	1342	4.40	Very Good
TE3	305	1	5	1380	4.52	Very Good
TE4	305	1	5	1396	4.58	Very Good
TE5	305	1	5	1303	4.27	Very Good

Table 10 presents that all indicators for the trust variable receive very good ratings, with average value> 4.24. The highest-rated indicator is TE4, with an average value of 4.58 and a total value of 1,396. These results indicate that the Shopee application has a good reputation among the public. Due to this reputation, consumers have started to use the Shopee application. Furthermore, TE3 also receives a high value of 4.52, which indicates that the payment process and payment options on the Shopee application are complete and satisfactory.

4.2.6 Respondents' Assessment of the Purchase Intention Variable

The purchase intention variable describes consumer purchasing interest through the Shopee application. This variable is measured by using four research indicators, which are given the codes PI1, PI2, PI3, and PI4. The results of the respondents' assessment of the purchase intention variable are presented in Table 11.

Table 11. Respondents' Assessment of Purchase Intention

	N	Minimum	Maximum	Sum	Mean	Assessment Criteria
PI1	305	1	5	1389	4.55	Very Good
PI2	305	1	5	1372	4.50	Very Good
PI3	305	1	5	1264	4.14	Good
PI4	305	1	5	1391	4.56	Very Good

Table 11 presents that three indicators for the purchase intention variable receive very good ratings, while one indicator receives a good rating, namely PI3. The highest-rated indicator is PI4, indicating consumers are likely to continue using Shopee in the future. Furthermore, PI1 has an average value of 4.55, demonstrating that consumers will keep purchasing products online through Shopee. On the other hand, the PI indicator still has an average rating categorized as good, indicating that some consumers still remain concerned about data security on Shopee. Therefore, consumers need assurance regarding data security.

4.3 Model Analysis Using SEM

The analysis used to test the proposed hypotheses involves the calculation of the Structural Equation Model (SEM) with AMOS 24 software. The sequence of analysis steps includes:

Step 1: Model Development Based on Theory

Model development in this study is based on the concept of data analysis. In general, this research model consists of 4 exogenous variables and two endogenous variables. The exogenous variables in this study are product quality (PQ), service quality (SQ), familiarity (FAM), and application quality (AQ). The endogenous variables in this study are trust in e-commerce (TE) and purchase intention (PI).

Steps 2 & 3: Developing Path Diagram and Structural Equation

The next step is to establish a causal relationship using a path diagram and to formulate structural equations. Two key tasks must be completed; first, to construct the structural model by connecting latent constructs, both endogenous and exogenous; second, and to define the model by connecting endogenous and exogenous latent constructs with their respective manifest indicators or variables, as shown in Figure 4.1.

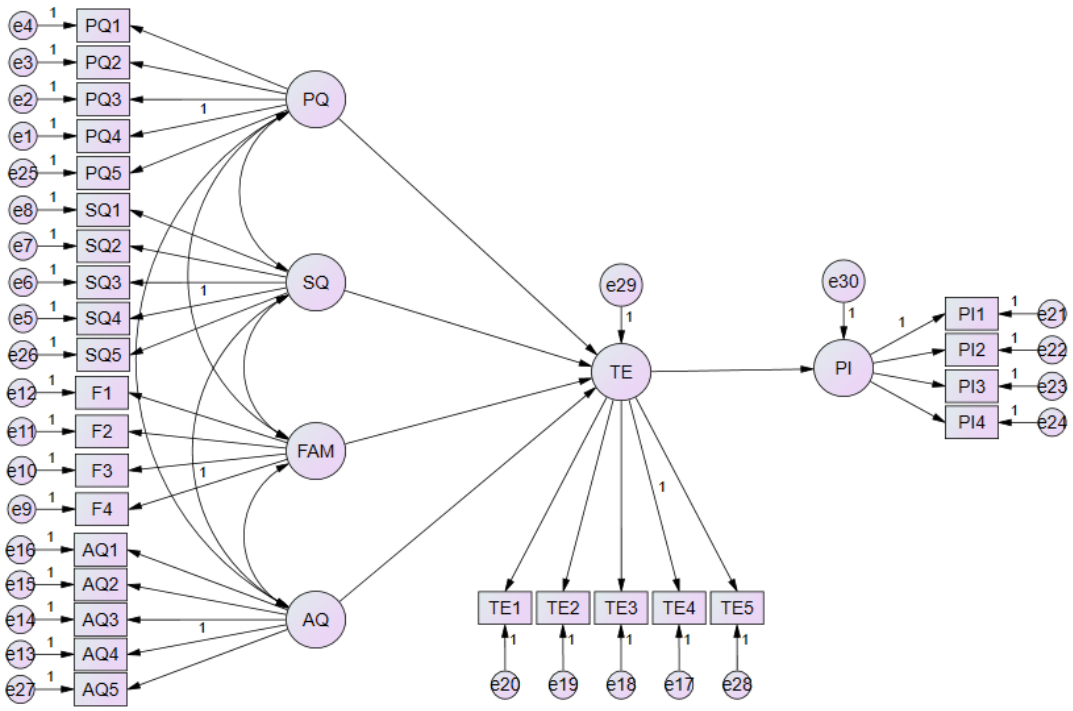


Figure 4. 1. AMOS Model

Step 4: Selecting the Input Matrix Type and Estimation of the Proposed Model

Structural equation modeling is different from other multivariate analysis techniques. SEM only uses input data in the form of variance or covariance matrices or correlation matrices. The model estimation used is maximum likelihood (ML) estimation, which has been fulfilled with the following assumptions:

Data Normality Test

The assumption of data normality must be fulfilled to enable further processing for SEM modeling. This normality test is conducted by observing the Critical Ratio (CR), skewness, and kurtosis values of the data used. In AMOS analysis, data is considered normal if it meets the following criteria

1. Has a skewness value on each indicator between the range of -3 to 3
2. Has a kurtosis value on each indicator between the range of -7 to 7
3. In multivariate normality, the data is required to have a multivariate c.r. Value between the range of -2.58 to 2.58.

The results of the data normality test in this study can be seen in Table 4.7.

Table 4. 12
Normality Test Result

Variable	min	max	skew	c.r.	kurtosis	c.r.
TE5	2.000	5.000	-0.945	-6.735	0.443	1.578
AQ5	2.000	5.000	-0.766	-5.462	0.194	0.693
SQ5	2.000	5.000	-0.814	-5.807	0.384	1.370
PQ5	2.000	5.000	-1.011	-7.206	0.737	2.627
PI4	2.000	5.000	-0.792	-5.648	0.044	0.156

Variable	min	max	skew	c.r.	kurtosis	c.r.
PI3	2.000	5.000	-0.930	-6.632	0.778	2.773
PI2	2.000	5.000	-0.721	-5.141	0.004	0.013
PI1	2.000	5.000	-1.134	-8.087	0.530	1.888
TE1	2.000	5.000	-1.013	-7.221	0.700	2.497
TE2	2.000	5.000	-1.135	-8.092	0.575	2.050
TE3	2.000	5.000	-1.041	-7.423	0.688	2.451
TE4	2.000	5.000	-0.802	-5.721	0.684	2.437
AQ1	2.000	5.000	-0.891	-6.352	0.451	1.608
AQ2	2.000	5.000	-0.628	-4.475	-0.291	-1.036
AQ3	2.000	5.000	-0.761	-5.427	0.076	0.272
AQ4	2.000	5.000	-0.815	-5.810	0.166	0.592
F1	2.000	5.000	-0.719	-5.126	0.607	2.164
F2	2.000	5.000	-1.023	-7.297	0.733	2.611
F3	2.000	5.000	-1.027	-7.319	0.938	3.342
F4	2.000	5.000	-0.995	-7.096	0.594	2.118
SQ1	2.000	5.000	-0.752	-5.360	0.443	1.581
SQ2	2.000	5.000	-0.699	-4.986	0.115	0.408
SQ3	2.000	5.000	-0.665	-4.738	0.533	1.901
SQ4	2.000	5.000	-0.956	-6.819	0.707	2.520
PQ1	2.000	5.000	-0.699	-4.986	0.115	0.408
PQ2	2.000	5.000	-0.782	-5.576	0.418	1.491
PQ3	2.000	5.000	-0.632	-4.508	0.288	1.025
PQ4	2.000	5.000	-0.872	-6.214	0.341	1.217
Multivariate					6.640	1.415

Table 4.12 shows that the results of the univariate normality test show that the data in this study have a kurtosis value of -3 to 3 and a kurtosis value of -7 to 7. The multivariate cr value is 1.415 falls within the range of -2.58 to 2.58, indicating that the data in this study can be considered normally distributed.

Outliers Test

An outlier is an observation or data with unique characteristics that appear different from other observations and appears in extreme values, either for a single variable or a combination of variables. Outliers can be evaluated using the analysis of multivariate outliers, which is assessed through the Mahalanobis Distance value. The Mahalanobis Distance test is calculated using the chi-square value at a degree of freedom of 28 indicators at a p level <0.001 with a chi-square value of 48.28. The results of the outlier analysis can be seen in Table 4.13.

Table 4. 13
Mahalanobis Distance Test

Observation number	Mahalanobis d-squared	p1	p2
138	47.148	0.013	0.912
151	46.038	0.017	0.898
1	45.989	0.017	0.781
137	44.112	0.027	0.917
155	43.912	0.028	0.865
147	43.245	0.033	0.877
105	42.848	0.036	0.860
266	42.848	0.036	0.771
290	42.848	0.036	0.661
125	41.973	0.044	0.779
286	41.973	0.044	0.682
82	41.861	0.045	0.608
243	41.861	0.045	0.497
65	41.672	0.047	0.451
226	41.672	0.047	0.348
78	40.919	0.055	0.501
239	40.919	0.055	0.403
145	40.436	0.060	0.479
13	39.929	0.067	0.575
174	39.929	0.067	0.483
96	39.868	0.068	0.417

Table 4.13 demonstrates that the highest Mahalanobis d Square value is 47.148, which does not exceed the c-square value of 48.28. Based on these results, it can be concluded that there are no outliers in the data.

Confirmatory Factor Analysis

Confirmatory analysis is used to test concepts constructed using several measurable indicators. In confirmatory analysis, the first aspect to examine is the loading factor value of each indicator. Loading factor can be used to measure construct validity, wherein a questionnaire is said to be valid if its questions on the questionnaire reveal something that is measured by the questionnaire. The minimum number of factor loading is ≥ 0.5 or ideally ≥ 0.7. If a value is still below 0.5, it will be removed from the analysis (Hair, Black, Babin, & Anderson, 2010). The factor loading values are presented in Table 4.14.

Table 4. 14
Factor Loading Value

Indicators	Loading Factor	Validity
PQ1	0.543	Valid
PQ2	0.541	Valid
PQ3	0.683	Valid
PQ4	0.736	Valid
PQ5	0.781	Valid
SQ1	0.669	Valid
SQ2	0.743	Valid
SQ3	0.575	Valid
SQ4	0.725	Valid
SQ5	0.616	Valid
F1	0.663	Valid

Indicators	Loading Factor	Validity
F2	0.858	Valid
F3	0.865	Valid
F4	0.825	Valid
AQ1	0.84	Valid
AQ2	0.809	Valid
AQ3	0.721	Valid
AQ4	0.755	Valid
AQ5	0.706	Valid
TE1	0.822	Valid
TE2	0.843	Valid
TE3	0.745	Valid
TE4	0.744	Valid
TE5	0.612	Valid
PI1	0.769	Valid
PI2	0.777	Valid
PI3	0.683	Valid
PI4	0.752	Valid

From Table 4.14, it is known that all indicators in this study already have a loading factor value greater than 0.5. Therefore, it can be concluded that the data in this study has passed the validity test.

Reliability Test

The reliability coefficient ranges from 0 to 1, so the higher the coefficient (closer to 1), the more reliable the measuring instrument is. Construct reliability is considered good if the construct reliability value is > 0.7 and the variance extracted value is > 0.5 (Hair, Black, Babin, & Anderson, 2010). The calculation results of the reliability test are presented in Table 4.15.

Table 4. 15
Reliability Test Result

Variable	Indicators	Outer Loading	Construct Reliability	AVE
Product Quality	PQ1	0.543	0.8	0.5
	PQ2	0.541		
	PQ3	0.683		
	PQ4	0.736		
	PQ5	0.781		
Service Quality	SQ1	0.669	0.8	0.5
	SQ2	0.743		
	SQ3	0.575		
	SQ4	0.725		
	SQ5	0.616		
Familiarity	F1	0.663	0.9	0.7
	F2	0.858		
	F3	0.865		
	F4	0.825		
Application Quality	AQ1	0.84	0.9	0.6
	AQ2	0.809		
	AQ3	0.721		
	AQ4	0.755		
	AQ5	0.706		
Trust in E-Commerce	TE1	0.822	0.9	0.6
	TE2	0.843		
	TE3	0.745		
	TE4	0.744		
	TE5	0.612		
Purchase Intention	PI1	0.769	0.8	0.6
	PI2	0.777		
	PI3	0.683		
	PI4	0.752		

Table 4.15 displays that the construct reliability of all variables is ≥ 0.7. Meanwhile, for the variance extracted in this study, each variable also has a value of ≥ 0.5. So, it can be concluded that the questionnaire used for this study is reliable.

Goodness of Fit Test

Furthermore, the confirmatory model fit test was tested using the Goodness of Fit Index. GOFI (Goodness of Fit Index) criteria are categorized into three types: absolute fit indices, incremental fit indices, and parsimony fit indices. Of the three types of GOFI, there are 25 criteria in total. SEM-Amos analysis does not require all criteria to be fulfilled; 4 - 5 criteria are sufficient as long as there are criteria that represent the three types of GOFI criteria (Hair, Black, Babin, & Anderson, 2010).

In this study, several criteria from each type of GOFI were selected, namely CMIN / DF, RMSEA, and GFI representing absolute fit indices, CFI and TLI representing incremental fit indices, then PGFI and PNFI representing parsimony fit indices. The results of the confirmatory analysis are presented in Figure 4.2.

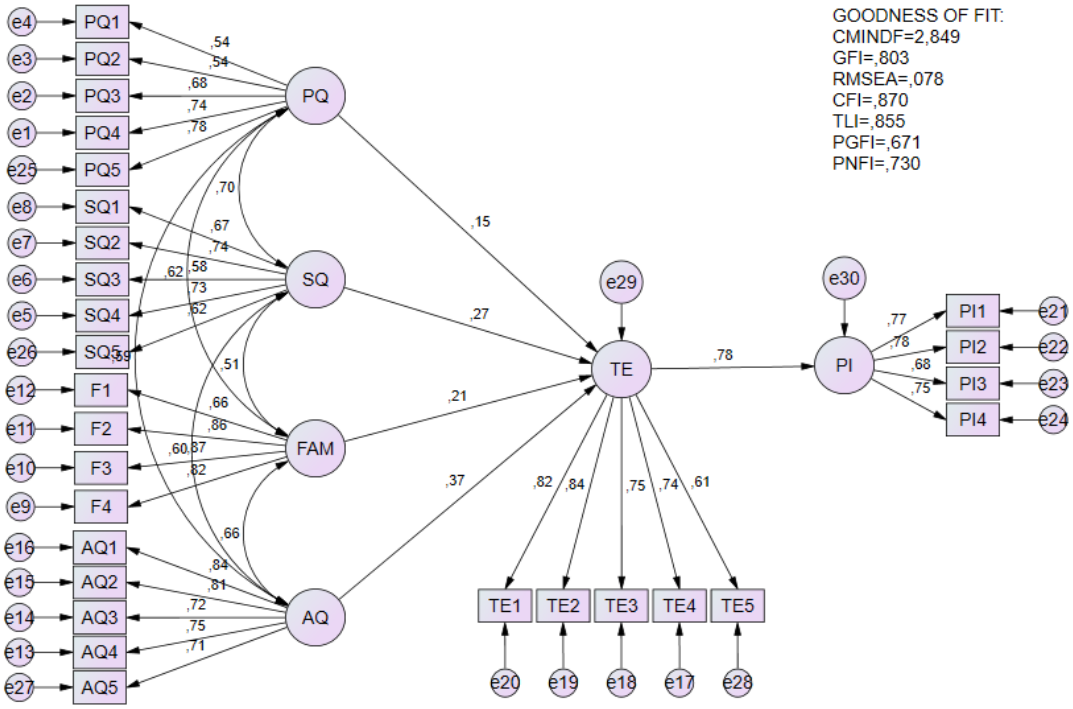


Figure 4. 2 Confirmatory analysis

The Goodness of Fit results are as in Table 4.16.

Table 4. 16 Confirmatory analysis of goodness of fit test results

Fit Index	Goodness of Fit	Criteria	Cut-off value	Description
Absolute Fit	CMIN/DF	≤ 2.00	2.849	Not Fit
	RMSEA	≤ 0.08	0.078	Fit
	GFI	≥ 0.90	0.803	Marginal Fit
Incremental Fit	CFI	≥ 0.90	0.870	Marginal Fit
	TLI	≥ 0.90	0.855	Marginal Fit
Parsimony Fit	PGFI	≥ 0.60	0.671	Fit
	PNFI	≥ 0.60	0.730	Fit

From the goodness of fit test results in Table 4.16, it can be seen that there is still 1 criterion that does not fit and three criteria that are marginal fit. Therefore, to

increase the GOF value, it is necessary to modify the model referring to the modification index table by providing a covariance relationship that has a high MI (Modification Index) value.

Steps 5 and 6: Model Modification and GOF Test

The following research model has been modified by referring to the modification index table by providing a covariance relationship or eliminating indicators with a high MI (Modification Index) value. The results of the modification are shown in Figure 4.3

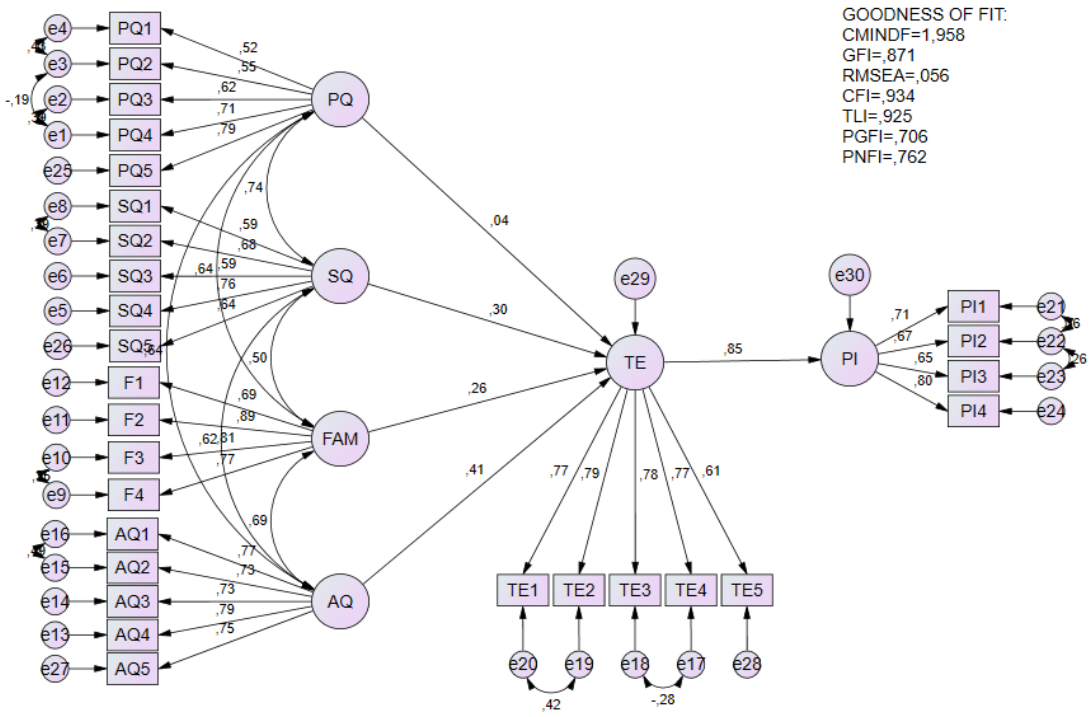


Figure 4. 3 Model After Modification

After the modification, the results show that the Goodness of Fit value has met all the criteria even though 1 criterion is still marginal Fit. However, the marginal fit

value can still be tolerated, allowing the model in this study to be deemed fit as shown in Table 4.17 (Hair, Black, Babin, & Anderson, 2010).

Table 4. 17 Goodness of Fit Value after Modification

Fit Index	Goodness of Fit	Criteria	Cut-off value	Description
Absolute Fit	CMIN/DF	≤ 2.00	1.958	Fit
	RMSEA	≤ 0.08	0.056	Fit
	GFI	≥ 0.90	0.871	Marginal Fit
Incremental Fit	CFI	≥ 0.90	0.934	Fit
	TLI	≥ 0.90	0.925	Fit
Parsimony Fit	PGFI	≥ 0.60	0.706	Fit
	PNFI	≥ 0.60	0.762	Fit

Step 7 Testing the Hypotheses

The next analysis is a full model Structural Equation Model (SEM) analysis to test the hypotheses proposed in this study. The results of the regression weight test in this study are shown in Figure 4.4 and Table 4.18.

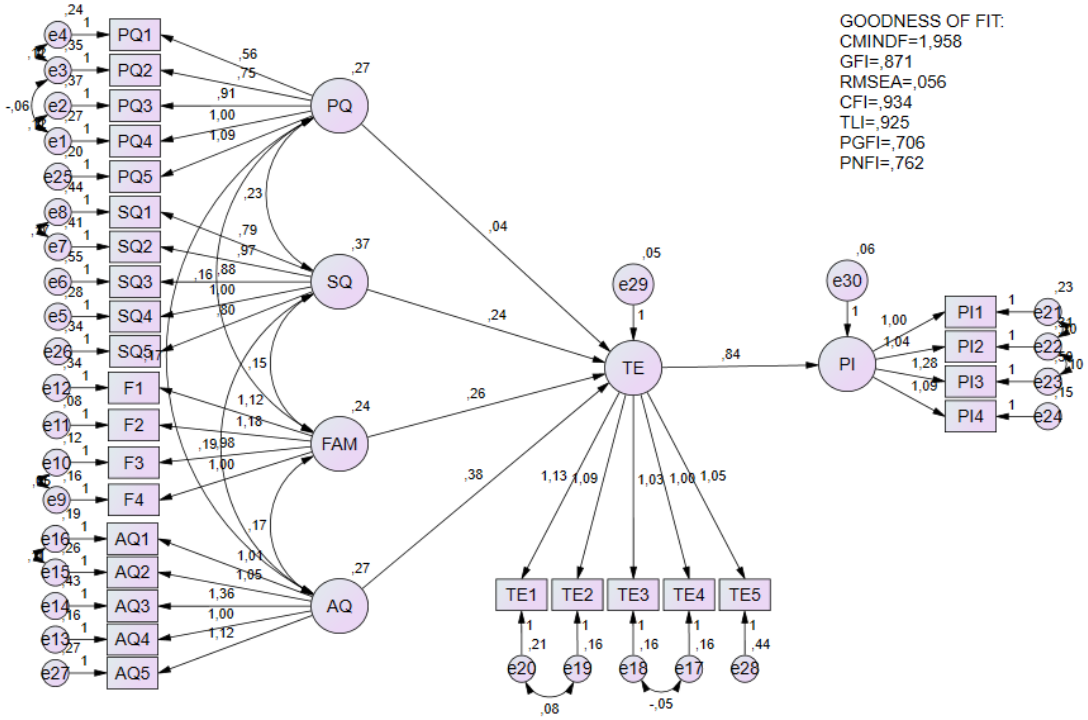


Figure 4. 4 AMOS Path Analysis

Table 4. 18 Regression Weight Test

			Estimate	S.E.	C.R.	P	Result
TE	<---	PQ	0.040	0.084	0.481	0.630	Rejected
TE	<---	SQ	0.239	0.067	3.596	0.000	Supported
TE	<---	FAM	0.263	0.069	3.807	0.000	Supported
TE	<---	AQ	0.382	0.071	5.367	0.000	Supported
PI	<---	TE	0.837	0.078	10.744	0.000	Supported

Hypothesis testing results can be determined by examining the Critical Ratio (CR) value and probability (P) value from the data processing results. The direction of the relationship between variables can be identified from the estimation value. If the estimation value is positive, then the relationship between the variables is positive, while negative estimation indicates negative relationship. Furthermore, if the test

results show a CR value above 1.96 and a probability value (P) below 0.05/5%, the relationship between exogenous and endogenous variables is significant. The research hypothesis testing will be discussed in stages according to the hypotheses proposed. The analysis results in Table 4.18 show that:

1. Product quality (PQ) has a positive but insignificant effect on trust in e-commerce (TR). This result is evidenced by the positive estimate value, a t-statistic value < 1.96, and a P-value > 0.05. So, H1 is not supported.
2. Service quality (SQ) positively and significantly affects trust in e-commerce (TR). This result is evidenced by the positive estimate value, t-statistic value> 1.96, and P-value <0.05. So, H2 is supported.
3. Familiarity (FAM) positively and significantly affects trust in e-commerce (TR). This result is evidenced by the positive estimate value, t-statistic value> 1.96, and P-value <0.05. So, H3 is supported.
4. Application quality (SQ) positively and significantly affects trust in e-commerce (TR). This result is evidenced by the positive estimate value, t-statistic value> 1.96, and P-value <0.05. So, H4 is supported.
5. Trust in e-commerce (TR) positively and significantly affects purchase intention (PI). This result is evidenced by the positive estimate value, t-statistic value> 1.96, and P-value <0.05. So, H5 is supported.

4.4 Discussion

This study analyzes the effect of product quality, service quality, familiarity, and application quality on trust in e-commerce. Furthermore, the analysis in this study

examines the effect of trust in e-commerce on purchase intention. The analysis was conducted on Shopee consumers with a sample of 305 respondents. This study formulates five hypotheses from 6 research variables. Hypothesis testing uses the structural equation model method with AMOS 24 software.

4.4.1 The Effect of Product Quality on Trust in E-Commerce

The first hypothesis in this study is that the quality of products sold through the Shopee e-commerce platform has a positive and significant effect on trust in e-commerce. The analysis results show that H1 is not supported, suggesting that the quality of products sold through Shopee e-commerce does not significantly impact the increased consumer trust in the e-commerce platform, although respondents evaluated the product quality on Shopee as good. This finding implies that product quality is not a top priority for consumers in building trust. Consumers perceive that product quality is not the main responsibility of the e-commerce platform but rather of the sellers.

The results of hypothesis 1 testing contradict several prior studies by Harjadi et al. (2019) ; Diputra & Yasa, (2021); (Chen et al., 2022), which found that product quality can increase consumer trust. Harjadi et al. (2019) emphasized that in online sales, quality is the main key to building product trust. Once quality is established and recognized by consumers, word of mouth will be created, which can increase trust and sales. Chen et al. (2022) further added that product quality can facilitate the transfer of trust between consumers in online transactions. In the context of Shopee as a marketplace platform, trust may not be directly associated with product quality due to

the diversity of sellers. Condumers may perceive that product quality depends more on the individual sellers rather than on the platform itself.

However, several studies also align with this H1 finding in this study. Julian and Ferdinand (2021) found no effect of product quality on consumer trust. Their finding emphasized that quality is not a determinant for consumers in building trust. This is because, for products with good quality standards that are already recognized by consumers, there is no longer a need for a perception of quality to build trust. It is therefore concluded that quality remains an important factor in marketing, but in certain cases, it is not the primary consideration in building consumer trust.

Based on the results of the respondent's assessment of the research variables, it was found that respondents have a strong perception that the variety of goods or products sold at Shopee is very diverse and complete (PQ1), and Shopee sells attractive products (PQ2). Other aspects include product suitability (PQ3), specification suitability (PQ4), and product usefulness and beauty (PQ5), which are good but still need improvement. Therefore, these aspects should be further considered again for e-commerce managers to gain better consumer trust.

4.4.2 The Effect of Service Quality on Trust in -Commerce

The second hypothesis in this study is that service quality has a positive and significant effect on trust in e-commerce. The analysis results show that H2 is supported, so it is empirically proven that services in the Shopee application can increase consumer trust in the application. This finding imply that it is recommended the services in the e-commerce be improved and developed to gain public trust. Service

improvement includes several aspects, including delivery, response to inquiries, insurance, relationship with consumers, and safe and proper packing.

From the results of respondents' assessments on the service quality variable, it was found that all indicators receive good category from the respondents. Among these indicators, SQ1 is the highest-rated indicator with an average of 4.14. This result indicates that product delivery to buyers has been carried out properly and on time (SQ1). Then, the respondents also assessed that the products purchased through the Shopee application were sent well, and the packing was also safe and neat (SQ5). Thus, these aspects need to be maintained and improved so that trust will increase.

The finding of hypothesis 2, which has proven the effect of service quality on consumer trust, is corroborated by several previous studies (Pasaribu et al. 2022; Wijaya et al., 2020; Cuong & Khoi, 2019; Rehman et al., 2020). Pasaribu et al. (2022) and Cuong & Khoi, (2019) found that consumers will be more satisfied, loyal, and trust in an e-commerce platform if they receive good services according to their expectations. Therefore, e-commerce parties must develop services and conduct research or studies on consumer expectations of e-commerce services. Rehman et al. (2020) also support the influence of service quality on consumer trust. Thus, service quality must be a priority in marketing strategy.

The literature discussing the effect of service quality on consumer trust in e-commerce has become a significant focus of research in the fields of management, marketing, and information technology. Literature studies highlight the importance of service quality in influencing consumer trust in e-commerce platforms (Wijaya et al., 2020; Cuong & Khoi, 2019). To put it simply, high service quality is key to increasing

consumer satisfaction and loyalty. It is proven by the research of Rehman et al., (2020) revealing that service quality significantly impacts consumer trust in e-commerce platforms. Wijaya et al., (2020) and Cuong & Khoi, (2019) also strengthen this by revealing that consumers tend to trust the platform that offers high-quality services, as it demonstrates the platform's commitment to customer satisfaction and business integrity.

This literature provides valuable managerial implications for e-commerce platform managers. Companies need to understand the dimensions of service quality that matter most to their consumers and develop strategies to improve these service quality aspects to strengthen consumer trust and improve their business performance. Thus, the literature on the effect of service quality on consumer trust in e-commerce has provided valuable insights for practitioners and researchers to understand and improve consumer experience in the ever-evolving e-commerce environment.

4.4.3 The Effect of Familiarity on Trust in -Commerce

The third hypothesis in this study is that familiarity has a positive and significant effect on trust in e-commerce. The analysis result shows that H3 is supported, so it is empirically proven that the higher the familiarity with an e-commerce application or platform, the more consumer confidence in the platform. Familiarity referred to in this study includes several aspects, namely names and brands that are known to the public, the purchasing process that is understood by the public, product searches on platforms familiar to the majority of people, and the product brands sold on the platform that are

known by the public. These aspects must be considered in order to become familiar with them.

The results of respondents' assessment of the research variables show that all research indicators on the familiarity variable receive very good ratings as they have an average value of > 4.24. The highest-rated indicator is F3, with an average value of 4.72, indicating that Shopee is an e-commerce very familiar to the public (F3). Furthermore, it is known that people, especially the respondents, are used to buying and using the Shopee application (F4).

The finding of hypothesis 3 supports several previous studies namely Mittendorf (2018); Liu et al., (2021); Mahmud et al., (2024). Mitendorf (2018) analyzed the effect of familiarity on trust among millennials and found that the more famous a product is, the higher the public trust becomes. This is because familiarity serves confirmation and recognition of the usefulness of a platform or product. Liu et al. (2021) also emphasized that familiarity is the most efficient marketing strategy and can build consumer trust quickly.

The literature discussing the effect of familiarity on consumer trust in e-commerce highlights the importance of psychological factors and previous interactions in shaping consumers' perceptions of e-commerce platforms (Liu et al., 2021). Familiarity with an e-commerce platform can have a significant impact on the level of consumer trust in the platform. Consumers tend to place more trust in platforms they are familiar with or have used before than in those they have just encountered. Previous experience with e-commerce platforms can affect consumers' familiarity and trust. Consumers with previous positive experiences, such as smooth purchases or

satisfactory customer service, tend to have a higher level of trust in the platform (Zaid, 2020; Mahmud et al., 2024).

4.4.4 The Effect of Application Quality on Trust in maCommerce

The fourth hypothesis in this study is that application quality positively and significantly affects trust in e-commerce. The finding shows that H4 is supported, so it is empirically proven that improving the quality of e-commerce applications or platforms can increase consumer trust in e-commerce. Therefore, this study recommends that e-commerce managers take into account the quality of applications offered to consumers. Several aspects need to be considered in improving the quality of the application, namely ease of operation, ease of navigation, attractive appearance, high competitiveness, and providing a positive shopping experience.

Based on the results of respondents' assessments of the variables, it was found that the highest-rated indicator is AQ1, with an average value of 4.61 and a total value of 1,407. This results indicates that the Shopee application is easy for consumers to learn and operate. Furthermore, the aspect that needs further development is the interface, which is already good but could be enhanced to become even more attractive.

The finding of testing H4 corroborates several previous studies, namely Alfarizi (2022) ; Oslina & Lew, (2018); Shafiya et al., (2023). Alfarizi (2022) emphasized that the better the quality of the application, the more public acceptance of the application, and then people will trust and rely on the application in their daily use. Furthermore, Oslina and Lew (2018) found that application quality is characterized by features that are

beneficial to consumers. Therefore, to achieve good quality, it is essential to provide excellent features to increase consumer confidence. Shafiya et al., (2023) further added that application quality not only increases trust but also boosts loyalty.

Literature studies show that the quality of an e-commerce application, including user interface, performance, reliability, security, and other features, significantly impacts consumer trust in the platform. Consumers tend to have more trust in platforms that offer easy-to-use, efficient, and reliable applications (Shankar, 2022). Furthermore, an intuitive and easy-to-use user interface (UI) is key to shaping consumer trust. E-commerce applications with a clean design, straightforward navigation, and consistent organization will increase consumer confidence in the platform (Gill et al., 2021).

In addition, performance quality and reliability of the application also play an important role in shaping consumer trust. A responsive, fast, error-free application will provide a more positive experience for consumers and strengthen their trust in the platform (Oslina & Lew, 2018). Furthermore, data and transaction security are critical to building consumer trust in e-commerce platforms. An application that protects personal data and financial transactions will provide a sense of security for consumers and increase their trust in the platform (Shankar, 2022).

4.4.5 The Effect of Trust in Commerce on Purchase Intention

The fifth hypothesis in this study is that trust in e-commerce has a positive and significant effect on purchase intention. The result of the analysis shows that H5 is supported, indicating that the improvements in consumer trust in e-commerce will lead

to increased purchase intentions. This study emphasizes the importance of consumer trust and recommends that e-commerce managers prioritize increasing consumer trust. Trust includes several aspects: trust in the brand or platform, trust during transactions, payment method options, good reputation, and security guarantees.

The respondents' assessment of each variable indicator shows that the highest-rated indicator is TE4, with an average value of 4.58 and a total value of 1,396. This finding indicates that the Shopee application has a good reputation among the public. Because of this reputation, consumers have started to use the Shopee application. Furthermore, TE3 also has a high value of 4.52, which indicates that the payment process and payment options in the Shopee application are complete and satisfactory.

The finding of hypothesis 5 supports several previous studies, namely Mahliza (2020); Shidqi & Noor, (2019); Wang et al., (2022). Trust is the basis for consumer decision-making regarding whether to make a purchase or not, so the first aspect that companies must successfully earn from consumers is trust (Mahliza, 2020). Wang et al. (2022) also emphasized that trust in a platform also plays an important role in increasing consumer purchases. However, research by Manzil & Vania (2023) found different findings that trust does not affect purchasing decisions. Nevertheless, this study addresses this gap and emphasizes the effect of trust on purchase intention.

Research in reputable journals shows that consumer trust can increase purchase intention through various mechanisms, including perceived security, prior satisfaction, brand reputation, transparent communication, user recommendations, and social interactions. Understanding and utilizing these mechanisms can help e-commerce

platforms to build strong relationships with consumers and improve their business performance (Wang et al., 2022).

BAB V

CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusion

This study analyzes the effect of product quality, service quality, familiarity, and application quality on trust in e-commerce. Furthermore, it examines the effect of trust on purchase intention in e-commerce. The data in this study are primary data collected through questionnaires completed by 305 respondents who are Shopee consumers. The collected data were then analyzed using the structural equation model method with AMOS 24 to test the hypotheses. There are five hypotheses in the study, and it was found that all hypotheses were supported with the following explanations:

1. Product quality (PQ) has a positive but insignificant effect on trust in e-commerce (TR). So, H1 in this study is not supported.
2. Service quality (SQ) positively and significantly affects trust in e-commerce (TR). So, H2 in this study is supported.
3. Familiarity (FAM) positively and significantly affects trust in e-commerce (TR). So, H3 in this study is supported.
4. Application quality (SQ) positively and significantly affects trust in e-commerce (TR). So, H4 in this study is supported.
5. Trust in e-commerce (TR) positively and significantly affects purchase intention (PI). So, H5 in this study is supported.

One of the key findings of this study is that product quality does not have a significant effect on trust in e-commerce, specifically on the Shopee platform. Although respondents generally rated product quality positively, it did not contribute significantly to building trust in the platform. This suggests that in the context of a multi-seller marketplace like Shopee, trust is not necessarily built upon product quality, but rather on other factors such as application quality, service reliability, and user familiarity with the platform.

5.2. Practical Implications

Based on the analysis results of this study, the author recommends several suggestions for e-commerce managers. To be in line with efforts to build consumer trust in e-commerce applications, e-commerce managers and related parties are advised to prioritize the development of service quality, application quality, and familiarity to increase consumer trust and create a sense of comfort for users. This, in turn, can encourage consumers to develop purchase intentions on e-commerce applications. This research contributes by providing additional research insights into the significance of trust in e-commerce applications on purchase intentions, particularly in the case of the Shopee application.

5.3. Limitations of the Study and Directions for Future Research

From the analysis results of this study, the researcher identified several limitations that should be considered for further study, including:

1. Expanding the research scope and comparing or incorporating other variables are recommended to identify factors that can increase trust and purchase intention.
2. Shopee, as an e-commerce application, must focus on the quality and familiarity provided to consumers to improve trust and comfort in the brand, thereby encouraging repeat purchases.
3. Shopee, as a platform provider, focuses more on strengthening platform-related trust drivers, such as ensuring a user-friendly application interface, responsive customer service, effective dispute resolution systems, and transparency in seller ratings and reviews.
4. Shopee could implement stricter quality control measures or verified seller programs to indirectly improve buyer trust through quality assurance.
5. The sample size can be increased to obtain data that accurately represents the indicators of the variables studied.

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ATTACHMENT

Jenis Kelamin

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Laki-laki	62	20.3	20.3	20.3
	Perempuan	243	79.7	79.7	100.0
	Total	305	100.0	100.0	

Usia

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	16 - 20 tahun	120	39.3	39.3	39.3
	21 - 25 tahun	170	55.7	55.7	95.1
	26 - 30 tahun	14	4.6	4.6	99.7
	31 - 35 tahun	1	.3	.3	100.0
	Total	305	100.0	100.0	

Pendidikan Terakhir

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Magister (S2)	4	1.3	1.3	1.3
	Sarjana (S1)	86	28.2	28.2	29.5
	SMA	212	69.5	69.5	99.0
	SMP	3	1.0	1.0	100.0
	Total	305	100.0	100.0	

Frekuensi Berbelanja Online Setiap Bulan

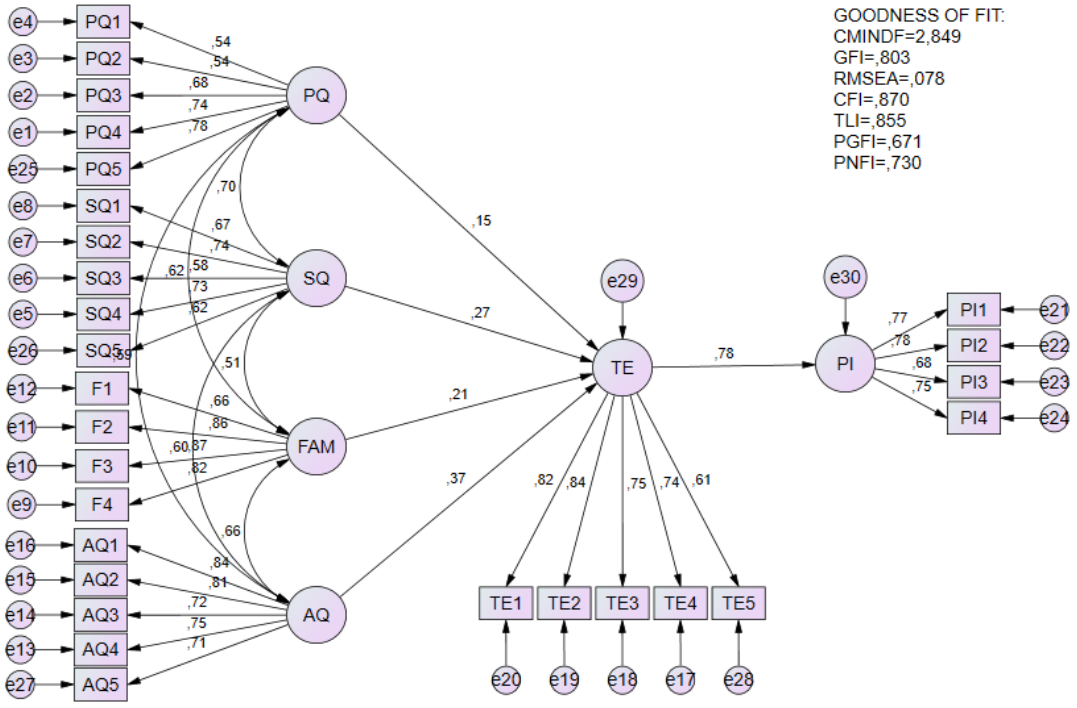
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	> 10 kali	29	9.5	9.5	9.5
	1 - 3 kali	161	52.8	52.8	62.3
	4 - 6 kali	96	31.5	31.5	93.8
	7 - 10 kali	19	6.2	6.2	100.0
	Total	305	100.0	100.0	

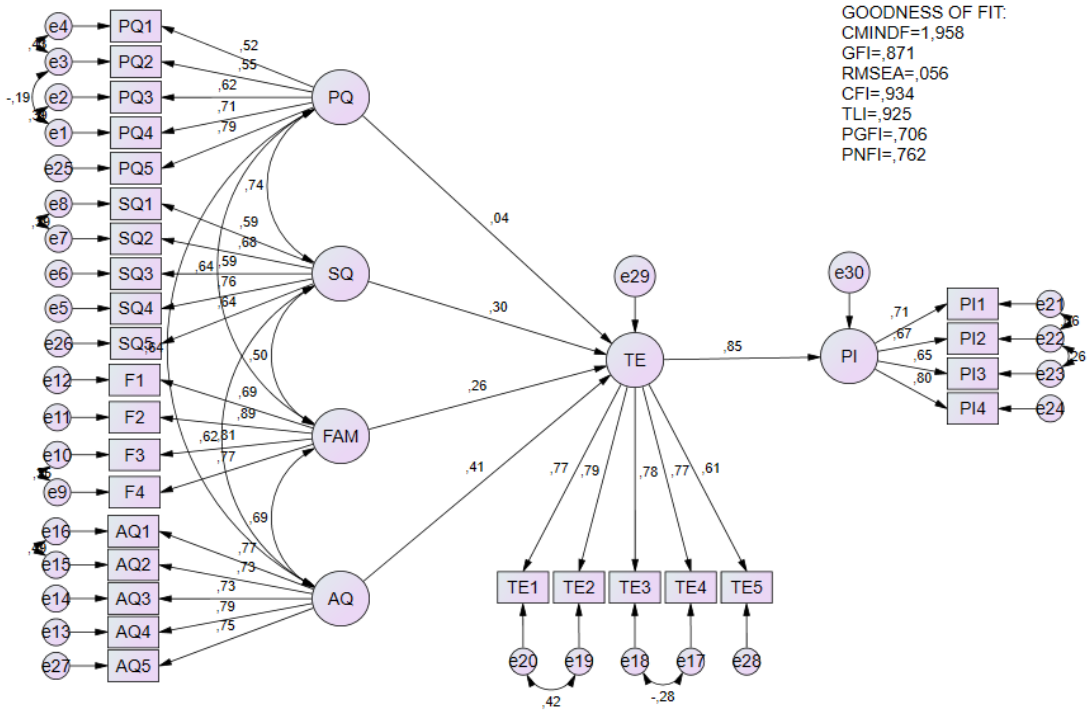
Descriptive Statistics

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
PQ1	305	1	5	1431	4.69	.571
PQ2	305	1	5	1378	4.52	.712
PQ3	305	1	5	1220	4.00	.774
PQ4	305	1	5	1221	4.00	.741
PQ5	305	1	5	1239	4.06	.725
SQ1	305	1	5	1264	4.14	.822
SQ2	305	1	5	1235	4.05	.870

SQ3	305	1	5	1222	4.01	.918
SQ4	305	1	5	1255	4.11	.805
SQ5	305	1	5	1260	4.13	.763
F1	305	1	5	1326	4.35	.797
F2	305	1	5	1409	4.62	.643
F3	305	1	5	1441	4.72	.587
F4	305	1	5	1433	4.70	.634
AQ1	305	1	5	1407	4.61	.684
AQ2	305	1	5	1360	4.46	.747
AQ3	305	1	5	1276	4.18	.963
AQ4	305	1	5	1384	4.54	.658
AQ5	305	1	5	1326	4.35	.776
TE1	305	1	5	1351	4.43	.718
TE2	305	1	5	1342	4.40	.667

TE3	305	1	5	1380	4.52	.644
TE4	305	1	5	1396	4.58	.629
TE5	305	1	5	1303	4.27	.836
PI1	305	1	5	1389	4.55	.672
PI2	305	1	5	1372	4.50	.744
PI3	305	1	5	1264	4.14	.931
PI4	305	1	5	1391	4.56	.647
Valid N (listwise)	305					


GOODNESS OF FIT:
CMINDF=2,849
GFI=,803
RMSEA=,078
CFI=,870
TLI=,855
PGFI=,671
PNFI=,730
PQ
SQ
FAM
AQ
TE
PI
e29
e30
PQ1
PQ2
PQ3
PQ4
PQ5
SQ1
SQ2
SQ3
SQ4
SQ5
F1
F2
F3
F4
AQ1
AQ2
AQ3
AQ4
AQ5
PI1
PI2
PI3
PI4
TE1
TE2
TE3
TE4
TE5
,15
,27
,21
,37
,78


GOODNESS OF FIT:
CMINDF=1,958
GFI=,871
RMSEA=,056
CFI=,934
TLI=,925
PGFI=,706
PNFI=,762
PQ
SQ
FAM
AQ
TE
PI
e29
e30
PQ1
PQ2
PQ3
PQ4
PQ5
SQ1
SQ2
SQ3
SQ4
SQ5
F1
F2
F3
F4
AQ1
AQ2
AQ3
AQ4
AQ5
PI1
PI2
PI3
PI4
TE1
TE2
TE3
TE4
TE5
,04
,30
,26
,41
,85
,42
-,28

5RTT54

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
TE	<---	PQ	,040	,084	,481	,630	
TE	<---	SQ	,239	,067	3,596	***	
TE	<---	FAM	,263	,069	3,807	***	
TE	<---	AQ	,382	,071	5,367	***	
PI	<---	TE	,837	,078	10,744	***	
PQ4	<---	PQ	1,000				
PQ3	<---	PQ	,914	,076	12,071	***	
PQ2	<---	PQ	,752	,096	7,822	***	
PQ1	<---	PQ	,564	,071	7,923	***	
SQ4	<---	SQ	1,000				
SQ3	<---	SQ	,883	,094	9,353	***	
SQ2	<---	SQ	,965	,090	10,686	***	
SQ1	<---	SQ	,791	,086	9,233	***	
F4	<---	FAM	1,000				
F3	<---	FAM	,980	,054	18,233	***	
F2	<---	FAM	1,182	,077	15,278	***	
F1	<---	FAM	1,123	,094	11,910	***	
AQ4	<---	AQ	1,000				
AQ3	<---	AQ	1,363	,104	13,042	***	
AQ2	<---	AQ	1,050	,082	12,832	***	
AQ1	<---	AQ	1,013	,074	13,671	***	
TE4	<---	TE	1,000				
TE3	<---	TE	1,030	,083	12,358	***	
TE2	<---	TE	1,090	,077	14,164	***	
TE1	<---	TE	1,135	,083	13,612	***	
PI1	<---	PI	1,000				
PI2	<---	PI	1,042	,081	12,883	***	
PI3	<---	PI	1,277	,127	10,072	***	

			Estimate	S.E.	C.R.	P	Label
PI4	<---	PI	1,086	,091	11,916	***	
PQ5	<---	PQ	1,095	,097	11,288	***	
SQ5	<---	SQ	,801	,079	10,193	***	
AQ5	<---	AQ	1,117	,084	13,286	***	
TE5	<---	TE	1,046	,099	10,557	***	

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
TE	<---	PQ	,043
TE	<---	SQ	,301
TE	<---	FAM	,265
TE	<---	AQ	,409
PI	<---	TE	,854
PQ4	<---	PQ	,706
PQ3	<---	PQ	,618
PQ2	<---	PQ	,554
PQ1	<---	PQ	,517
SQ4	<---	SQ	,757
SQ3	<---	SQ	,586
SQ2	<---	SQ	,676
SQ1	<---	SQ	,587
F4	<---	FAM	,768
F3	<---	FAM	,813
F2	<---	FAM	,894
F1	<---	FAM	,686
AQ4	<---	AQ	,787
AQ3	<---	AQ	,733
AQ2	<---	AQ	,728
AQ1	<---	AQ	,767
TE4	<---	TE	,770
TE3	<---	TE	,775
TE2	<---	TE	,793
TE1	<---	TE	,766
PI1	<---	PI	,707
PI2	<---	PI	,665
PI3	<---	PI	,651
PI4	<---	PI	,798
PQ5	<---	PQ	,790

			Estimate
SQ5	<---	SQ	,640
AQ5	<---	AQ	,745
TE5	<---	TE	,606

Covariances: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
PQ	<-->	SQ	,234	,032	7,315	***	
PQ	<-->	FAM	,164	,023	6,988	***	
PQ	<-->	AQ	,174	,025	7,019	***	
SQ	<-->	FAM	,149	,024	6,129	***	
SQ	<-->	AQ	,195	,028	7,049	***	
FAM	<-->	AQ	,172	,022	7,719	***	
e3	<-->	e4	,123	,020	6,009	***	
e15	<-->	e16	,110	,018	5,983	***	
e19	<-->	e20	,079	,014	5,493	***	
e7	<-->	e8	,166	,032	5,169	***	
e1	<-->	e2	,123	,026	4,814	***	
e1	<-->	e3	-,059	,017	-3,559	***	
e9	<-->	e10	,049	,012	4,090	***	
e21	<-->	e22	,096	,019	5,021	***	
e17	<-->	e18	-,046	,012	-3,916	***	
e22	<-->	e23	,101	,025	4,033	***	

Correlations: (Group number 1 - Default model)

			Estimate
PQ	<-->	SQ	,736
PQ	<-->	FAM	,645
PQ	<-->	AQ	,645
SQ	<-->	FAM	,504
SQ	<-->	AQ	,618
FAM	<-->	AQ	,685
e3	<-->	e4	,426
e15	<-->	e16	,488
e19	<-->	e20	,424
e7	<-->	e8	,389
e1	<-->	e2	,387
e1	<-->	e3	-,191

			Estimate
e9	<-->	e10	,355
e21	<-->	e22	,365
e17	<-->	e18	-,280
e22	<-->	e23	,258

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
PQ	,273	,043	6,384	***	
SQ	,371	,052	7,094	***	
FAM	,236	,031	7,510	***	
AQ	,267	,034	7,827	***	
e29	,055	,010	5,579	***	
e30	,061	,014	4,401	***	
e1	,274	,029	9,409	***	
e2	,369	,035	10,485	***	
e3	,348	,032	10,982	***	
e4	,238	,021	11,344	***	
e5	,275	,031	8,787	***	
e6	,551	,050	10,980	***	
e7	,410	,041	10,058	***	
e8	,442	,041	10,825	***	
e9	,164	,017	9,671	***	
e10	,117	,013	8,898	***	

	Estimate	S.E.	C.R.	P	Label
e11	,083	,014	6,092	***	
e12	,335	,030	10,995	***	
e13	,165	,017	9,579	***	
e14	,427	,041	10,374	***	
e15	,262	,025	10,267	***	
e16	,192	,020	9,816	***	
e17	,161	,016	10,016	***	
e18	,165	,017	9,953	***	
e19	,165	,016	10,185	***	
e20	,212	,020	10,488	***	
e21	,225	,023	9,947	***	
e22	,308	,029	10,446	***	
e23	,498	,047	10,593	***	
e24	,152	,019	8,116	***	
e25	,197	,025	7,993	***	
e26	,342	,032	10,531	***	
e27	,267	,026	10,226	***	
e28	,440	,038	11,649	***	

Matrices (Group number 1 - Default model)

Total Effects (Group number 1 - Default model)

	AQ	FAM	SQ	PQ	TE	PI
TE	,382	,263	,239	,040	,000	,000
PI	,320	,220	,200	,034	,837	,000
TE5	,400	,275	,250	,042	1,046	,000
AQ5	1,117	,000	,000	,000	,000	,000
SQ5	,000	,000	,801	,000	,000	,000
PQ5	,000	,000	,000	1,095	,000	,000
PI4	,348	,239	,218	,037	,909	1,086
PI3	,409	,282	,256	,043	1,069	1,277
PI2	,333	,230	,209	,035	,872	1,042
PI1	,320	,220	,200	,034	,837	1,000
TE1	,434	,299	,272	,046	1,135	,000
TE2	,417	,287	,261	,044	1,090	,000
TE3	,394	,271	,246	,041	1,030	,000
TE4	,382	,263	,239	,040	1,000	,000
AQ1	1,013	,000	,000	,000	,000	,000
AQ2	1,050	,000	,000	,000	,000	,000
AQ3	1,363	,000	,000	,000	,000	,000
AQ4	1,000	,000	,000	,000	,000	,000
F1	,000	1,123	,000	,000	,000	,000
F2	,000	1,182	,000	,000	,000	,000
F3	,000	,980	,000	,000	,000	,000
F4	,000	1,000	,000	,000	,000	,000
SQ1	,000	,000	,791	,000	,000	,000
SQ2	,000	,000	,965	,000	,000	,000
SQ3	,000	,000	,883	,000	,000	,000
SQ4	,000	,000	1,000	,000	,000	,000
PQ1	,000	,000	,000	,564	,000	,000
PQ2	,000	,000	,000	,752	,000	,000
PQ3	,000	,000	,000	,914	,000	,000
PQ4	,000	,000	,000	1,000	,000	,000

Standardized Total Effects (Group number 1 - Default model)

	AQ	FAM	SQ	PQ	TE	PI
TE	,409	,265	,301	,043	,000	,000
PI	,349	,226	,257	,037	,854	,000
TE5	,248	,160	,183	,026	,606	,000
AQ5	,745	,000	,000	,000	,000	,000
SQ5	,000	,000	,640	,000	,000	,000

	AQ	FAM	SQ	PQ	TE	PI
PQ5	,000	,000	,000	,790	,000	,000
PI4	,278	,180	,205	,030	,681	,798
PI3	,227	,147	,167	,024	,556	,651
PI2	,232	,150	,171	,025	,568	,665
PI1	,247	,160	,182	,026	,603	,707
TE1	,313	,203	,231	,033	,766	,000
TE2	,324	,210	,239	,034	,793	,000
TE3	,317	,205	,233	,034	,775	,000
TE4	,315	,204	,232	,033	,770	,000
AQ1	,767	,000	,000	,000	,000	,000
AQ2	,728	,000	,000	,000	,000	,000
AQ3	,733	,000	,000	,000	,000	,000
AQ4	,787	,000	,000	,000	,000	,000
F1	,000	,686	,000	,000	,000	,000
F2	,000	,894	,000	,000	,000	,000
F3	,000	,813	,000	,000	,000	,000
F4	,000	,768	,000	,000	,000	,000
SQ1	,000	,000	,587	,000	,000	,000
SQ2	,000	,000	,676	,000	,000	,000
SQ3	,000	,000	,586	,000	,000	,000
SQ4	,000	,000	,757	,000	,000	,000
PQ1	,000	,000	,000	,517	,000	,000
PQ2	,000	,000	,000	,554	,000	,000
PQ3	,000	,000	,000	,618	,000	,000
PQ4	,000	,000	,000	,706	,000	,000

Direct Effects (Group number 1 - Default model)

	AQ	FAM	SQ	PQ	TE	PI
TE	,382	,263	,239	,040	,000	,000
PI	,000	,000	,000	,000	,837	,000
TE5	,000	,000	,000	,000	1,046	,000
AQ5	1,117	,000	,000	,000	,000	,000
SQ5	,000	,000	,801	,000	,000	,000
PQ5	,000	,000	,000	1,095	,000	,000
PI4	,000	,000	,000	,000	,000	1,086
PI3	,000	,000	,000	,000	,000	1,277
PI2	,000	,000	,000	,000	,000	1,042
PI1	,000	,000	,000	,000	,000	1,000

	AQ	FAM	SQ	PQ	TE	PI
TE1	,000	,000	,000	,000	1,135	,000
TE2	,000	,000	,000	,000	1,090	,000
TE3	,000	,000	,000	,000	1,030	,000
TE4	,000	,000	,000	,000	1,000	,000
AQ1	1,013	,000	,000	,000	,000	,000
AQ2	1,050	,000	,000	,000	,000	,000
AQ3	1,363	,000	,000	,000	,000	,000
AQ4	1,000	,000	,000	,000	,000	,000
F1	,000	1,123	,000	,000	,000	,000
F2	,000	1,182	,000	,000	,000	,000
F3	,000	,980	,000	,000	,000	,000
F4	,000	1,000	,000	,000	,000	,000
SQ1	,000	,000	,791	,000	,000	,000
SQ2	,000	,000	,965	,000	,000	,000
SQ3	,000	,000	,883	,000	,000	,000
SQ4	,000	,000	1,000	,000	,000	,000
PQ1	,000	,000	,000	,564	,000	,000
PQ2	,000	,000	,000	,752	,000	,000
PQ3	,000	,000	,000	,914	,000	,000
PQ4	,000	,000	,000	1,000	,000	,000

Standardized Direct Effects (Group number 1 - Default model)

	AQ	FAM	SQ	PQ	TE	PI
TE	,409	,265	,301	,043	,000	,000
PI	,000	,000	,000	,000	,854	,000
TE5	,000	,000	,000	,000	,606	,000
AQ5	,745	,000	,000	,000	,000	,000
SQ5	,000	,000	,640	,000	,000	,000
PQ5	,000	,000	,000	,790	,000	,000
PI4	,000	,000	,000	,000	,000	,798
PI3	,000	,000	,000	,000	,000	,651
PI2	,000	,000	,000	,000	,000	,665
PI1	,000	,000	,000	,000	,000	,707
TE1	,000	,000	,000	,000	,766	,000
TE2	,000	,000	,000	,000	,793	,000
TE3	,000	,000	,000	,000	,775	,000
TE4	,000	,000	,000	,000	,770	,000
AQ1	,767	,000	,000	,000	,000	,000

	AQ	FAM	SQ	PQ	TE	PI
AQ2	,728	,000	,000	,000	,000	,000
AQ3	,733	,000	,000	,000	,000	,000
AQ4	,787	,000	,000	,000	,000	,000
F1	,000	,686	,000	,000	,000	,000
F2	,000	,894	,000	,000	,000	,000
F3	,000	,813	,000	,000	,000	,000
F4	,000	,768	,000	,000	,000	,000
SQ1	,000	,000	,587	,000	,000	,000
SQ2	,000	,000	,676	,000	,000	,000
SQ3	,000	,000	,586	,000	,000	,000
SQ4	,000	,000	,757	,000	,000	,000
PQ1	,000	,000	,000	,517	,000	,000
PQ2	,000	,000	,000	,554	,000	,000
PQ3	,000	,000	,000	,618	,000	,000
PQ4	,000	,000	,000	,706	,000	,000

Indirect Effects (Group number 1 - Default model)

	AQ	FAM	SQ	PQ	TE	PI
TE	,000	,000	,000	,000	,000	,000
PI	,320	,220	,200	,034	,000	,000
TE5	,400	,275	,250	,042	,000	,000
AQ5	,000	,000	,000	,000	,000	,000
SQ5	,000	,000	,000	,000	,000	,000
PQ5	,000	,000	,000	,000	,000	,000
PI4	,348	,239	,218	,037	,909	,000
PI3	,409	,282	,256	,043	1,069	,000
PI2	,333	,230	,209	,035	,872	,000
PI1	,320	,220	,200	,034	,837	,000
TE1	,434	,299	,272	,046	,000	,000
TE2	,417	,287	,261	,044	,000	,000
TE3	,394	,271	,246	,041	,000	,000
TE4	,382	,263	,239	,040	,000	,000
AQ1	,000	,000	,000	,000	,000	,000
AQ2	,000	,000	,000	,000	,000	,000
AQ3	,000	,000	,000	,000	,000	,000
AQ4	,000	,000	,000	,000	,000	,000
F1	,000	,000	,000	,000	,000	,000
F2	,000	,000	,000	,000	,000	,000

	AQ	FAM	SQ	PQ	TE	PI
F3	,000	,000	,000	,000	,000	,000
F4	,000	,000	,000	,000	,000	,000
SQ1	,000	,000	,000	,000	,000	,000
SQ2	,000	,000	,000	,000	,000	,000
SQ3	,000	,000	,000	,000	,000	,000
SQ4	,000	,000	,000	,000	,000	,000
PQ1	,000	,000	,000	,000	,000	,000
PQ2	,000	,000	,000	,000	,000	,000
PQ3	,000	,000	,000	,000	,000	,000
PQ4	,000	,000	,000	,000	,000	,000

Standardized Indirect Effects (Group number 1 - Default model)

	AQ	FAM	SQ	PQ	TE	PI
TE	,000	,000	,000	,000	,000	,000
PI	,349	,226	,257	,037	,000	,000
TE5	,248	,160	,183	,026	,000	,000
AQ5	,000	,000	,000	,000	,000	,000
SQ5	,000	,000	,000	,000	,000	,000
PQ5	,000	,000	,000	,000	,000	,000
PI4	,278	,180	,205	,030	,681	,000
PI3	,227	,147	,167	,024	,556	,000
PI2	,232	,150	,171	,025	,568	,000
PI1	,247	,160	,182	,026	,603	,000
TE1	,313	,203	,231	,033	,000	,000
TE2	,324	,210	,239	,034	,000	,000
TE3	,317	,205	,233	,034	,000	,000
TE4	,315	,204	,232	,033	,000	,000
AQ1	,000	,000	,000	,000	,000	,000
AQ2	,000	,000	,000	,000	,000	,000
AQ3	,000	,000	,000	,000	,000	,000
AQ4	,000	,000	,000	,000	,000	,000
F1	,000	,000	,000	,000	,000	,000
F2	,000	,000	,000	,000	,000	,000
F3	,000	,000	,000	,000	,000	,000
F4	,000	,000	,000	,000	,000	,000
SQ1	,000	,000	,000	,000	,000	,000
SQ2	,000	,000	,000	,000	,000	,000
SQ3	,000	,000	,000	,000	,000	,000

	AQ	FAM	SQ	PQ	TE	PI
SQ4	,000	,000	,000	,000	,000	,000
PQ1	,000	,000	,000	,000	,000	,000
PQ2	,000	,000	,000	,000	,000	,000
PQ3	,000	,000	,000	,000	,000	,000
PQ4	,000	,000	,000	,000	,000	,000