Linking supply chain service quality and use of information technology on customer satisfaction

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A B S T R A C T

This research has the aim of analyzing the relationship between the supply chain service quality variable and consumer satisfaction, analyzing the use of information technology variable on consumer satisfaction at the Immigration organization. This research method is associative quantitative research and aims to determine the relationship between two or more variables. In this way, we can build a theory that functions to predict and control a phenomenon. The population in this study were all immigration organization employees. In this research, an analysis model is used, namely Structural Equation Modeling (SEM). In this study, the number of respondents was 613 immigration organization customers. The sampling technique used in this research is nonprobability sampling. In this research, the data collection method used was the questionnaire method. The instrument used to measure this research variable is a 5-point Likert scale. Data processing in this research uses SmartPLS software. The stages of data analysis in this research are the outer model test which includes convergent validity, discriminant validity and composite reliability as well as inner model analysis, namely hypothesis testing. Based on data analysis, it is concluded that Supply chain service quality has a positive and crucial impact on consumer satisfaction. The use of information technology has a positive and crucial impact on consumer satisfaction.

1. Introduction

In the digital era, the number of internet users increases significantly every year and the behavior of users who want information and transactions that are efficient or effective twenty-four hours a day. That factor is what triggers information technology-based businesses. According to Asbari (2024), attention to customer satisfaction and loyalty is increasing. Increasingly tough competition, especially in public transport services: there are various manufacturers which contribute to meeting customer needs and desires, resulting in each company needing to position their focus on satisfaction and loyalty to customers. This is indeed an important key to winning the competition. The method that can be used can be in the form of providing value and satisfaction for customers through service quality and the use of technology. If consumers are satisfied with the quality of service and use of information technology, this can certainly lead to commitment to company products (Jun, 2004; Purwanto & Juliana, 2022). However, if the number of consumers decreases, there is a potential for consumers to move to competitors due to consumer dissatisfaction. The satisfaction of a consumer is feelings of pleasure or dissatisfaction with the product after they compare the product's performance with their expectations. Consumer satisfaction is an abstract concept, which has several variations from someone to the product, depending on how much someone hopes. According to Prayuda and Purwanto (2024), satisfied consumers experience an increase when they think that sellers have behaved fairly in transactions. Researchers, through their studies related to consumer satisfaction, consumer trust, and consumer loyalty, show that consumer satisfaction is a crucial aspect in a business environment full of increasing competition (Purwanto et al., 2023).

This study also proves empirically that consumer satisfaction, trust and consumer loyalty result in repeat purchase intentions. The positive experience felt by consumers regarding a product/service will have an emotional impact and trigger satisfaction in the minds of customers (Yang & Fang, 2004).

Customer loyalty is rooted in brand loyalty which represents consumer loyalty to a particular brand. Consumer loyalty can be formed if the consumer is satisfied with the brand or service they receive and intends to maintain a continuous relationship continuously. According to Li et al. (2021), consumer loyalty is rooted in brand loyalty which represents consumer commitment to a particular brand. Loyalty is formed from related consumer feelings the level of service they receive, as well as leads to building relationships. Consumer loyalty tends to be towards certain brands over a long period, as well as making purchases or utilizing products/services repeatedly despite the existence of various other alternatives. Loyalty to consumers is a form of loyalty or the consumer's desire to commit to a product or brand, according to a positive attitude and is represented through repeat purchases (Rudyanto et al., 2020). Consumer loyalty is a consumer's commitment to persist deeply to be able to establish relationships (as customers) or purchase products/services repeatedly for the future, despite conditions or marketing efforts that have the potential to cause changes. Consumer satisfaction is the consumer's opinion that the expectations they have been met. Consumer satisfaction is defined as a comparison between customer expectations and what customers feel when using the product. If customers feel that the product performance is the same or exceeds expectations, then they will get satisfaction (Haudi et al., 2022). Otherwise, if the product performance does not meet expectations, of course, the consumer will experience dissatisfaction. Satisfaction plays a role in a person's level of feeling after comparing the performance or results he feels he hopes for. Satisfaction is a pleasant fulfilment of consumer expectations. Consumer satisfaction is the level of consumer feelings after comparing the service performance he feels compared to his expectations. Consumer satisfaction is a final evaluation after comparing what the consumer feels with the consumer's expectations (Juwaini et al., 2022; Syahril et al., 2022).

Information technology consists of various technologies implemented to process and send information in digital form if the use of information technology is the desired use of its users while carrying out their tasks: measurement is determined by the intensity of technology use, the level of use, and the number of applications used (Sureshchandar et al., 2002). User factors are a crucial element to receive attention regarding technology implementation. This is because the user's preparation for obtaining technology has a major impact on determining the success of implementing that technology. The next factor is the user's perception of the efficiency and effectiveness of using technology. These two factors also have an impact on the desire to use technology. According to Wirapraja et al. (2021), the use of information technology is various forms of using technology to process and send information. electronic form: the level of utilization can be determined by the depth of use, level of use, and how many applications are used. In general, technology users tend to have a positive opinion of the available technology (Rudyanto et al., 2020).

Service quality is the difference felt by consumers, especially regarding expectations and the reality of the service they receive (Jahanshahi et al., 2011). Service quality is a form of customer assessment of levels of services they perceive to be the desired level of service. In this way, service quality is a consumer assessment of the difference between expectations and the reality that consumers feel from the services they receive. If the consumer's perception of the service is the same as their expectations, then the service quality is assumed to be good (Chang et al., 2012). However, if consumers' perceptions of services are different from expectations, then the quality of service is assumed to be poor. On this basis, good and bad indicators of service quality are determined based on the competency of the service provider during compliance with consumer desires. According to Nguyen et al. (2020), service quality focuses on efforts to fulfil consumers' needs and desires, including being precise in conveying them as an effort to fulfil desires consumers if service quality is the desired level of excellence and its control to fulfil consumer desires.

2. Literature Review and Hypothesis Development

2.1 Supply chain service quality

Supply chain service quality is the expected level of excellence and control over the level of excellence to meet customer desires (Hu et al., 2009). If the supply chain services received are as expected, then the quality of the service is perceived as good and satisfactory. If the supply chain service received exceeds customer expectations, then the quality of the supply chain service is perceived as ideal. Conversely, if the service received is lower than expected, then the quality of the service is perceived as poor (Ganguli & Roy, 2011). Referring to the definition of service quality, the concept of service quality is the responsiveness and reality of the services provided by the company. Supply chain service quality must start from customer needs and end with customer perceptions. This means that the quality of a good supply chain is not based on the perception of the service provider, but rather the perception of the customer (Kassim & Asiah Abdullah, 2010). According to Khatoon et al. (2020) supply chain service quality refers to customer assessments about the core of the service, namely the service provider itself or the entire service organization, the majority of society is starting to show demands for excellent service. They no longer just need quality products, but they prefer to enjoy the convenience of supply chain services (Lassar et al., 2000).

2.2 Information Technology

Information technology is technology that combines computing (computers) with high-speed communication lines that carry data, voice, and video (Lassar et al., 2000). Information Technology is one of the tools managers use to deal with changes that occur. In this case, the changes referred to are changes to information that has been previously processed and stored on the computer. This Information Technology is a combination of computer technology consisting of devices hard and soft to process and store information with communication technology to distribute information. Communication technology is used as a means of distributing information, while the information is processed and stored in a computer (Chang et al., 2012). According to Wang et al. (2004), information technology is a technology used to process data, including processing, obtaining, compiling, store, manipulate data in various ways to produce quality information, namely information that is relevant, accurate and timely, which is used for personal, business and government purposes and is strategic information for decision making. Technology that uses computers as the main device to process data into useful information. According to Naik et al. (2010) the use of information technology is also related to the behavior of using this technology to adapt tasks. Theory of attitudes and behavior (theory of attitudes and behavior), the use of personal computers (PCs) by workers who have knowledge in an environment that can choose (optional) will be influenced by individual feelings (affect) towards the use of personal computers, social norms (social norms) in the workplace that pays attention to the use of personal computers, habits (habits) regarding computer use, expected individual consequences (consequences) from the use of personal computers and Facilitating conditions in an environment that is conducive to PC use.

2.3 Customer satisfaction

Satisfaction is the level of a person's feelings after comparing the performance or results he feels compared to his expectations (Zygiaris & Hameed, 2022). Customer satisfaction or dissatisfaction is the customer's response to the evaluation of the perceived disconfirmation between previous expectations and the actual performance of the product that is felt after using it. Customer satisfaction is an emotional response to the evaluation of the consumption experience of a product or service (Hsu et al., 2012). Customer satisfaction is a post-purchase evaluation where the alternative chosen is at least the same as or exceeds customer expectations, while dissatisfaction arises if the results (outcome) do not meet expectations. According to Kaura et al. (2015), customer satisfaction with a product or service is difficult to obtain if the service company or industry does not understand what consumers expect. For products or services of the same quality, they can provide different levels of satisfaction for different consumers (Praditya, 2024). Therefore, a company must always pay attention to the quality of the products and services provided to consumers. Customer satisfaction is the customer's response to the discrepancy between the previous level of interest and the actual performance they feel after use (Rasli et al., 2018). Customer satisfaction is influenced by perceptions of service quality, product quality, price and factors that are personal and momentary.

2.4 The Relationship between Supply chain service quality and customer satisfaction

One of the factors that influences employee performance is Supply chain service quality. Good service quality is when the company can provide services based on customer desires/expectations and listen to various complaints from customers so as not to give rise to bad opinions about the quality of service the company provides. To gain an advantage in competition, service quality can be an important tool and function to acquire new customers (Rahman et al., 2021). Service quality, consumer satisfaction, and trust influence loyalty. Through this study, results were obtained that service quality variables had a crucial influence on consumer satisfaction and loyalty variables. According to Wang et al. (2004), Service quality is assumed to be ideal if the service obtained matches or exceeds customer expectations (Qin et al., 2010). Service quality is assumed to be bad if the service consumers receive is bad, which will have an impact on the company's development and trigger a decline in the level of consumer trust. Providing the best service to customers is an indicator of company success. Immigrants that are successful in marketing their services/products to customers with satisfactory service will certainly get a positive image from customers Ningsih et al., 2019). According to Wirapraja et al. (2021), Increasing employee performance cannot be separated from Supply chain service quality. Supply chain service quality is the expected level of excellence and control over the level of excellence to meet customer desires (Hu et al., 2009). If the supply chain services received are as expected, then the quality of the service is perceived as good and satisfactory. Based on this analysis, the following hypothesis is formulated:

H₁: *Supply chain service quality has a positive and significant relationship with customer satisfaction.*

2.5 The relationship between the use of information technology and customer satisfaction

The use of information technology is said to be successful if it can improve employee performance which will influence the performance of an institution or organization (Ningsih et al., 2019; Rita et al., 2019). For employees who can use and understand technology applications, it will provide more value to employees, the work will be completed in a relatively short time and improve the quality of the employee (Qin et al., 2010). The use of information technology in the form of facilities or tools, the existence of information technology is very important to save time, energy, and thoughts and significantly improve performance effectively and efficiently. Information technology has a positive influence on activities in carrying out their work to improve employee performance in all components (Rahman et al., 2021). According to Naik et al. (2010)

computer facilities provided by institutions or organizations influence the implementation of information technology in institutions. The more facilities provided will make it easier for employees to access the data needed to complete employee work within the institution. Based on this analysis, the following hypothesis is formulated:

H₂: *The use of information technology has a positive and significant relationship with customer satisfaction.*

3. Method

This research method is associative quantitative research and aims to determine the relationship between two or more variables. In this way, we can build a theory that functions to predict and control a phenomenon. The population in this study were all immigration organization employees. In this research, an analysis model is used, namely Structural Equation Modeling (SEM). In this study, the number of respondents was 613 immigration organization customers. The sampling technique used in this research is nonprobability sampling. In this research, the data collection method used was the questionnaire method. The instrument used to measure this research variable is a 5-point Likert scale. Data processing in this research uses SmartPLS software. The stages of data analysis in this research are the outer model test which includes convergent validity, discriminant validity and composite reliability as well as inner model analysis, namely hypothesis testing.
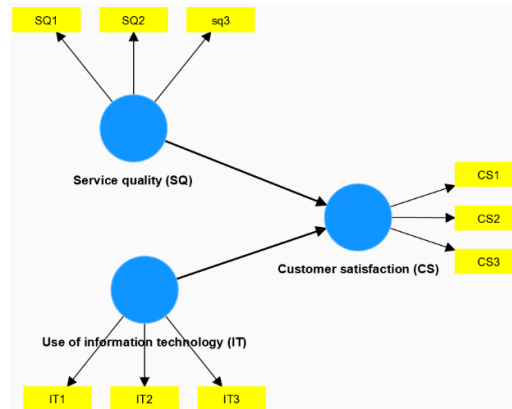

Fig. 1. Research Model

4. Result and Discussion

4.1 Outer Model Analysis

Outer model analysis is an evaluation of the relationship between variables and their indicators. The following is a display of the SmartPLS output results below:

Table 1
Validity and reliability testing

Variable	Item	Loading	CR	AVE	Cronbach's alpha
Service quality	SQ1	0.836	0.825	0.717	0.711
	SQ2	0.812			
	SQ3	0.783			
The use of information technology	IT1	0.763	0.818	0.721	0.732
	IT2	0.823			
	IT3	0.734			
Customer satisfaction	CS1	0.709	0.822	0.712	0.716
	CS2	0.812			
	CS8	0.812			

4.2 Convergent Validity

To test convergent validity, the outer loading value is used. An indicator is declared to meet convergent validity in the good category if the outer loading value is > 0.7, but an outer loading value between 0.5-0.6 is considered sufficient. The outer loading value of each indicator in the research variable appears in Table 1.

4.3 Discriminant Validity

Discriminant Validity is looking at and comparing discriminant validity and the square root of the average extracted (AVE). If the AVE square root value for each construct is greater than the correlation value between the construct and other variables

in the model, then it is said to have good discriminant validity values and the expected AVE value is > 0.5. The AVE value for each variable is presented in Table 1. Based on the data presented in Table 1 above, it is known that the AVE value for all variables is > 0.5. Thus, it can be stated that each variable has good discriminant validity.

4.4 Composite Reliability

Composite Reliability is an index that shows the extent to which a measuring instrument can be trusted to be relied upon. Data that has composite reliability > 0.7 has high reliability. The composite reliability value of each variable is shown in the following table. Based on the data presented in Table 1 above, the composite reliability value for all variables is > 0.7. These results indicate that each variable has met composite reliability so it can be concluded that all variables have a high level of reliability.

4.5 Cronbach's Alpha

The reliability test with composite reliability above can be strengthened by using Cronbach's alpha value. A variable can be declared reliable or meets Cronbach's alpha if it has a Cronbach's alpha value > 0.7. The Cronbach's alpha value of each variable appears in Table 1. Based on the data presented above in Table 1, Cronbach's alpha value of each variable is> 0.7. Thus, these results can indicate that each research variable has met the requirements for Cronbach's alpha value, so it can be concluded that all variables have a high level of reliability.

4.6 Hypothesis testing

Based on the analysis of the data that has been processed, the results can be used to answer the hypothesis in this research. Hypothesis testing in this research was carried out by looking at the t-statistic values and probability values. The research hypothesis can be declared accepted if the t statistic is > 1.96 and the probability value is < 0.05. The following are the output results from SmartPLS shown in Table 2 and Fig 2.
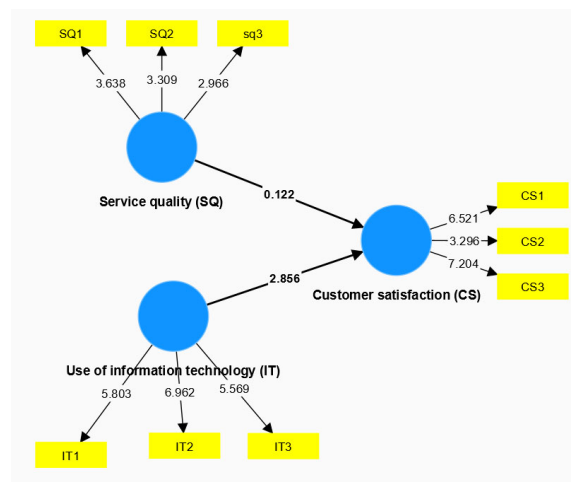

Fig. 2. Hypothesis Testing

The results of hypothesis testing on the influence of each independent variable on the dependent variable can be described as follows.

Table 2
Direct Effect Analysis

Hs	Path	β	p-value	t-value	supported
H_1	SQ→CS	0.311	0.000	6.122	Yes
H_2	IT→CS	0.231	0.000	2.856	Yes

4.7 The Relationship between Service Quality and Customer Satisfaction

Researchers express the opinion that consumers will be complacent because the quality of service they get is good. This condition will certainly trigger a better company image in front of customers. If the dimensions of service quality, such as empathy, responsiveness, trustworthiness, guarantees, and tangibles have a positive impact on customer satisfaction (Prayuda, 2024). Good service quality is when the company can provide services based on customer desires/expectations and listen to various complaints from customers so as not to give rise to bad opinions about the quality of service the company provides.

To gain an advantage in competition, service quality can be an important tool and function to acquire new customers (Rahman et al., 2021). Service quality, consumer satisfaction, and trust influence loyalty. Through this study, results were obtained that service quality variables had a crucial influence on consumer satisfaction and loyalty variables. According to Wang et al. (2004), Service quality is assumed to be ideal if the service obtained matches or exceeds customer expectations (Qin et al., 2010). Service quality is assumed to be bad if the service consumers receive is bad, which will have an impact on the company's development and trigger a decline in the level of consumer trust. Providing the best service to customers is an indicator of company success. Immigrants that are successful in marketing their services/products to customers with satisfactory service will certainly get a positive image from customers (Ningsih et al., 2019).

One of the main elements that determines customer satisfaction is the customer's perception of service quality. Customers assume that companies that have high service quality will be able to meet expectations and even exceed their expectations and this gives rise to a high level of customer satisfaction (Jahanshahi et al., 2011). Customer satisfaction is described as the result of a comparison between customer expectations and the quality of services provided. Therefore, service quality was identified as a strong predictor of customer satisfaction. Customer loyalty can be generated when customers buy the product or service they need, and the quality of the product or service exceeds their expectations. Customers who have experienced and felt some service quality level will determine or provide an evaluation of whether they feel satisfied or not. The quality of service received by customers is one aspect that determines overall customer satisfaction. Previous research has proven that there is a relationship between customer satisfaction and service quality (Chang et al., 2012).

In this research, it appears that the Service Quality variable has a significant effect on Customer Satisfaction. This means that the satisfaction felt by customers is due to the influence of the quality of services provided by immigration to customers. The contribution of service quality in influencing customer satisfaction (Lassar et al., 2000). The relationship between service quality and satisfaction is a significant positive relationship so it can be said that the higher the quality of service provided to customers, the higher the level of customer satisfaction with the services provided by immigration. This research provides the same results as research that has been conducted which states that Service Quality has a direct impact on Customer Satisfaction (Hu et al., 2009).

4.8 The Relationship between the Use of Information Technology and Customer Satisfaction

The relationship between the use of information technology and service quality is based on the Theory of Reasoned Action (TRA), which states that someone wants to use information technology if the technology can provide benefits and optimize a person's work performance (Ganguli & Roy, 2011). Apart from that, based on TAM, it is stated that the use of information technology can optimize work performance. If in achieving several tasks a person carries out in the organization based on the job description and responsibilities. The higher a person's work performance, the more effectiveness, productivity and quality of service will also increase (Lassar et al., 2000).). In this way, it can be said that the use of technology in an organization can optimize the quality of service to a person while carrying out their duties and obligations. The use of information technology can at least be a factor that has an impact on efforts to achieve the quality of the individual's services while carrying out their duties or obligations within the organization. The use of information technology in the current era has developed quite significantly (Gorla et al., 2010). The use of information technology is the desired use of users while carrying out their tasks: measurement is based on intensity of use, frequency of use, and number of applications used. Several factors that influence how far customers trust, are satisfied, and have loyalty towards B2C e-commerce lead to the conclusion that the web page interface and information quality have a positive impact on customer satisfaction and privacy security is quite weakly related to consumer satisfaction (Ganguli & Roy, 2011). The study results show that the consistent use of information technology has a positive and crucial impact on consumer satisfaction. Customer satisfaction is the level of feeling where someone expresses the results of a comparison between product/service work results received with what was expected. Several efforts must be made by the immigration authorities to increase satisfaction among customers, namely by improving information technology services and the quality of service from the immigration authorities and all its employees. The quality of information technology has a positive and significant effect on customer satisfaction, service quality has a positive and significant effect on customer satisfaction, and information technology and service quality together have a positive and significant effect on customer satisfaction. Information technology influences customer satisfaction, and ease of transactions using technology information influences customer satisfaction (Kassim & Asiah Abdullah, 2010). The performance of companies and employees in information technology, in the form of usefulness and effectiveness, is considered to have an influence on respondents in answering the questions given by the researcher.

Nowadays, attention to customer satisfaction is increasing. Increasingly tight competition, especially in the public transportation business, has triggered various manufacturers or service providers to participate actively to meet the needs and desires of customers. That condition resulted in each company needing to position their focus on customer satisfaction as their main goal. This is considered an important key to winning the competition. The way that can be done is to provide value and satisfaction to customers through service quality and the use of information technology (Lassar et al., 2000). According to Faisal et al. (2020), Consumers will become more loyal to the company. However, the decline in the number of consumers can also be caused by consumers moving to competing companies because they did not get satisfaction from their previous company. If service quality is assumed to be an element that companies must realize because it has the effect of bringing in new customers and can minimize the potential for consumers to move to competing companies. Service quality is determined

by context and focus to meet consumer needs and requirements, as well as how good the service is given based on consumer wishes. High customer satisfaction will have an impact on their behaviour and attitudes in reducing the level of complaints, increasing trust, and making repeat purchases to create emotional closeness between consumers. with brands, as well as rational specialization to create loyal consumers. Not only that, the emergence of consumer loyalty can also design suggestions and information from everyone that provide benefits for the company (Ganguli & Roy, 2011). If consumers are satisfied with the quality of service they receive, this can certainly give rise to loyalty in them so that their desire to use the service increases. However, there is a possibility that there will be a decrease in the number of consumers, which is related to consumers moving to competitors because consumers feel they are not satisfied with the service they receive.

Proper use of information technology and supported by the expertise of the members who operate it can improve company performance and the performance of the individual concerned. Thus, the direct relationship and impact of information technology is on individual users which will then improve company performance. The existence of a technology-based information system refers to the purpose of the information system itself. Information systems support the function of providing information for management, as well as a means of supporting the company's daily operational activities. The main advantages of the system Technology-based information is online and real-time. Reports can be generated directly from the transaction database so reflect the current conditions of business operations. All recorded transactions can be in softcopy or hardcopy form so they can be traced easily.

5. Conclusion

Based on data analysis, it is concluded that service quality has a positive and crucial impact on consumer satisfaction in the Immigration organization. The use of information technology has a positive and crucial impact on consumer satisfaction in the Immigration organization. By the conclusions that have been conveyed, this article also includes suggestions, namely that other factors have an impact on consumer satisfaction and loyalty. consumers, apart from service quality, use of information technology, and customer value at all types or levels of organization/company. On this basis, in-depth analysis is still needed to obtain other possible factors that have an impact on consumer satisfaction and loyalty. At the immigration organization, competitive advantage is realized through various types of service quality which include personal service from immigration employees in the form of attentive employee interactions and understanding customer needs well, being friendly and polite in serving customers and handling customer complaints quickly and thoroughly. In this case, it shows that service quality can increase customer satisfaction. Performance immigration and employees in service quality in the form of tangibles, reliability, responsiveness, guarantees and certainty as well as Empathy is considered to have an influence on respondents in answering the questions given by the researcher.

References

Asbari, M. (2024). Investigating The Role of Organizational Culture and Knowledge Sharing on Teacher Innovation Capability. *PROFESOR: Professional Education Studies and Operations Research, 1*(02), 11-21.

Chang, C. S., Chen, S. Y., & Lan, Y. T. (2012). Motivating medical information system performance by system quality, service quality, and job satisfaction for evidence-based practice. *BMC Medical informatics and decision making, 12*, 1-12.

Faisal, A. S., Haque, R., Rahman, A. K., & Connie, A. (2020). The influence of e-service quality dimensions on customer satisfaction and purchase intention: An Indian e-market perspective. *Asian Journal of Technology & Management Research, 10*(1).

Ganguli, S., & Roy, S. K. (2011). Generic technology-based service quality dimensions in banking: Impact on customer satisfaction and loyalty. *International journal of bank marketing, 29*(2), 168-189.

Gorla, N., Somers, T. M., & Wong, B. (2010). Organizational impact of system quality, information quality, and service quality. *The journal of strategic information systems, 19*(3), 207-228.

Haudi, H., Rahadjeng, E., Santamoko, R., Putra, R., Purwoko, D., Nurjannah, D., ... & Purwanto, A. (2022). The role of e-marketing and e-CRM on e-loyalty of Indonesian companies during Covid pandemic and digital era. *Uncertain Supply Chain Management, 10*(1), 217-224.

Hsu, C. L., Chang, K. C., & Chen, M. C. (2012). The impact of website quality on customer satisfaction and purchase intention: perceived playfulness and perceived flow as mediators. *Information Systems and e-Business Management, 10*, 549-570.

Hu, H. H., Kandampully, J., & Juwaheer, T. D. (2009). Relationships and impacts of service quality, perceived value, customer satisfaction, and image: an empirical study. *The service industries journal, 29*(2), 111-125.

Jahanshahi, A. A., Gashti, M. A. H., Mirdamadi, S. A., Nawaser, K., & Khaksar, S. M. S. (2011). Study the effects of customer service and product quality on customer satisfaction and loyalty. *International Journal of Humanities and Social Science, 1*(7), 253-260.

Jun, M., Yang, Z., & Kim, D. (2004). Customers' perceptions of online retailing service quality and their satisfaction. *International Journal of Quality & Reliability Management, 21*(8), 817-840.

Juwaini, A., Chidir, G., Novitasari, D., Iskandar, J., Hutagalung, D., Pramono, T., ... & Purwanto, A. (2022). The role of customer e-trust, customer e-service quality and customer e-satisfaction on customer e-loyalty. *International journal of data and network science, 6*(2), 477-486.

Kassim, N., & Asiah Abdullah, N. (2010). The effect of perceived service quality dimensions on customer satisfaction, trust, and loyalty in e-commerce settings: A cross cultural analysis. *Asia pacific journal of marketing and logistics, 22*(3), 351-371.

Kaura, V., Durga Prasad, C. S., & Sharma, S. (2015). Service quality, service convenience, price and fairness, customer loyalty, and the mediating role of customer satisfaction. *International journal of bank marketing, 33*(4), 404-422.

Khatoon, S., Zhengliang, X., & Hussain, H. (2020). The Mediating Effect of customer satisfaction on the relationship between Electronic banking service quality and customer Purchase intention: Evidence from the Qatar banking sector. *Sage Open, 10*(2), 2158244020935887.

Lassar, W. M., Manolis, C., & Winsor, R. D. (2000). Service quality perspectives and satisfaction in private banking. *Journal of services marketing, 14*(3), 244-271.

Li, F., Lu, H., Hou, M., Cui, K., & Darbandi, M. (2021). Customer satisfaction with bank services: The role of cloud services, security, e-learning and service quality. *Technology in Society, 64*, 101487.

Naik, C. K., Gantasala, S. B., & Prabhakar, G. V. (2010). Service quality (SERVQUAL) and its effect on customer satisfaction in retailing. *European journal of social sciences, 16*(2), 231-243.

Nguyen, D. T., Pham, V. T., Tran, D. M., & Pham, D. B. T. (2020). Impact of service quality, customer satisfaction and switching costs on customer loyalty. *The Journal of Asian Finance, Economics and Business, 7*(8), 395-405.

Ningsih, F., & Afriaris, S. (2019). Quality Of Public Services At The Population And Civil Registration Services Indragiri Hulu District. *Journal of Industrial Engineering & Management Research, 1*(1a), 1 - 5. https://doi.org/10.7777/jiemar.v2i5.197

Praditya, R. A. (2024). The Role of service quality, product quality, location and product innovation on consumer purchasing decisions and word of mouth. *Journal of Industrial Engineering & Management Research, 5*(2), 20-24. https://doi.org/10.7777/jiemar.v5i2.517

Prayuda, R. Z. (2024). Investigation of the Influence of Price, Promotion and Innovation on Customer Satisfaction in the Digital Era. *UJoST- Universal Journal of Science and Technology, 3*(2), 13–18. https://doi.org/10.11111/ujost.v3i2.150

Purwanto, A., & Juliana, J. (2022). The effect of supplier performance and transformational supply chain leadership style on supply chain performance in manufacturing companies. *Uncertain Supply Chain Management, 10*(2), 511-516.

Purwanto, A., Purba, J., Bernarto, I., & Sijabat, R. (2023). Investigating the role digital transformation and human resource management on the performance of the universities. *International Journal of Data and Network Science, 7*(4), 2013-2028.

Qin, H., Prybutok, V. R., & Zhao, Q. (2010). Perceived service quality in fast-food restaurants: Empirical evidence from China. *International Journal of Quality & Reliability Management, 27*(4), 424-437.

Rahman, A., Suhaila, A., & Haryati, R. (2021). Implementation of Service Quality Improvement Strategies in Service Unit Division PT. Pos Indonesia (Persero) Jakarta. *Journal of Industrial Engineering & Management Research, 2*(4), 138 - 153. https://doi.org/10.7777/jiemar.v2i4.172

Rasli, S., Khairi, N., Ayathuray, H., & Sudirman, M. S. (2018). The impact of e-business website quality on customer satisfaction. *Journal of Theoretical and Applied Information Technology, 97*(2), 102-112.

Rita, P., Oliveira, T., & Farisa, A. (2019). The impact of e-service quality and customer satisfaction on customer behavior in online shopping, *Heliyon, 5*(10).

Rudyanto, R., Soemarni, L., Pramono, R., & Purwanto, A. (2020). The influence of antecedents of supply chain integration on company performance. *Uncertain Supply Chain Management, 8*(4), 865-874.

Sureshchandar, G. S., Rajendran, C., & Anantharaman, R. N. (2002). The relationship between service quality and customer satisfaction–a factor specific approach. *Journal of services marketing, 16*(4), 363-379.

Syahril, S., Sihotang, M., Hadinegoro, R., Sulastri, E., Rochmad, I., Cahyono, Y., & Purwanto, A. (2022). Hospitals Cusptomer e-loyalty: How The Role of e-service quality, e-recovery service quality and e-satisfaction ?. *UJoST- Universal Journal of Science and Technology, 1*(1), 23–27. https://doi.org/10.11111/ujost.v1i1.56

Wang, Y., Lo, H. P., & Yang, Y. (2004). An integrated framework for service quality, customer value, satisfaction: Evidence from China's telecommunication industry. *Information systems frontiers, 6*, 325-340.

Wirapraja, A., Aribowo, H., & Setyoadi, E. T. (2021). The Influence of E-Service Quality, and Customer Satisfaction On Go-Send Customer Loyalty In Surabaya. *Indonesian Journal of Information Systems, 3*(2), 128-137.

Yang, Z., & Fang, X. (2004). Online service quality dimensions and their relationships with satisfaction: A content analysis of customer reviews of securities brokerage services. *International journal of service industry management, 15*(3), 302-326.

Zygiaris, S., & Hameed, Z. (2022). Service quality and customer satisfaction in the post pandemic world: A study of Saudi auto care industry. *Frontiers in Psychology, 13*, 842141.