BUILDING LOYALTY THROUGH ORDER FULFILLMENT, SERVICE ASSURANCE, AND SERVICE RECOVERY IN THE TELECOMMUNICATIONS BUSINESS SEGMENT

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ABSTRACT

In business marketing or B2B (business-to-business), the strategy of retaining valuable customers has proven to be more advantageous than efforts to acquire new customers. In the context of the business segment in the Indonesian telecommunications industry, the ability to retain customers is of utmost importance due to the highly competitive nature of the telecommunications industry in Indonesia. This research adopts the SERVQUAL model to measure Customer Satisfaction, with a focus on specific aspects relevant to the telecommunications industry, such as Order Fulfillment, Service Assurance, and Service Recovery. The specific aspects are then analyzed using Second Order SEM PLS to better understand the influence of its dimensions. Furthermore, Relationship Marketing is used to emphasize the importance of building long-term relationships through Customer Satisfaction to create Customer Loyalty. The research employs a quantitative approach, collecting data through questionnaires distributed to 363 end-user customers in the wholesale segment of PT. Telkom Indonesia Regional IV in Central Java and Yogyakarta. The results of the study indicate that all specific service quality aspects (Order Fulfillment, Service Assurance, and Service Recovery) have a direct relationship with Customer Satisfaction. Subsequently, in the mediation analysis, Customer Satisfaction serves as a full mediator for both Order Fulfillment and Service Recovery in relation to Customer Loyalty. However, in the relationship between Service Assurance and Customer Loyalty, Customer Satisfaction functions as a partial mediator, as Service Assurance also has a direct impact on Customer Loyalty. Theoretically, there is synergy between SERVQUAL and Relationship Marketing, where Service Recovery has the strongest influence on Customer Loyalty through Customer Satisfaction.

INTRODUCTION

Over the past two decades, Indonesia's telecommunications industry has undergone a significant transformation. Initially, it was a government-controlled monopoly, but it has now evolved into a highly competitive market with the emergence of numerous new telecommunications companies. This transformation began with the enactment of Telecommunications Law No. 36 of 1999, allowing private companies to invest in the telecommunications business in Indonesia. Deregulation and liberalization have also been accompanied by substantial growth in the use of broadband internet in Indonesia. According to data from the Association of Indonesian Internet Service Providers (APJII), the number of internet users in Indonesia surged to 210.026.769 individuals during the 2021-2022 period, with a penetration rate of 77.02 percent (Suharno, 2023). The vast potential of Indonesia's telecommunications market and the ease of doing business for private companies have driven the growth of the telecommunications sector. While competition has led to very affordable internet rates in Indonesia (Septiani, 2022), the high infrastructure costs and low profitability margins have resulted in a slow return on investment (Dewi, 2021). Therefore, companies need to focus on retaining existing customers through customer loyalty to reduce the cost of acquiring new customers (https://detik.com, 2021). Research indicates that customer loyalty is influenced by the perceived service quality (Mohamad et al. 2012). Satisfactory customer experiences in terms of service failure recovery (service recovery), service quality assurance (service assurance), and the fulfillment of promised services (order fulfillment) are key factors in retaining customers in this highly competitive industry.

According to study of Camilleri (2022), a significant influence was found between consumer order fulfillment and e-loyalty. Personalization and timely service fulfillment in the e-commerce environment enhance customer loyalty. However, research by Limbu et al. (2013) indicates that fulfillment in terms of online retailer website reliability does not significantly affect website loyalty. Other studies, such as those by Pink & Djohan (2021) and Puranda et al. (2022), found that order fulfillment in online retailer applications like SHOPEE and GOFOOD does not have a direct impact on loyalty. This suggests a research gap between order fulfillment and customer loyalty. Izogo (2017) found that service assurance, which includes trust and confidence in service quality and reliability, has an influence, though not significant, on customer loyalty in the telecommunications industry. This is due to the fact that service assurance remains promises and has not yet become a realized reality. This research is supported by

Rashid et al. (2020) and Slack et al. (2020) in the context of banking and supermarket customers, indicating that efforts to build trust and confidence in customers during transactions do not affect customer loyalty. However, research by Belwal & Amireh (2018) and Ismail & Yunan (2016) show that assurance has a significant impact on customer loyalty. Therefore, there is a research gap between service assurance and customer loyalty. According to research from Pai et al. (2019), a significant influence was found between service recovery and customer loyalty. A quick service recovery process during service failures can result in customer satisfaction and high loyalty. However, studies by Shahzad et al. (2021) produced different findings, showing that service recovery, especially in terms of perceived fairness during service failures in the telecommunications sector, is not related to customer loyalty. Other studies, such as those conducted by Chang & Chang (2010), Cheng et al. (2019), ZAID et al. (2021), also show that the level of service recovery is not directly related to customer loyalty but requires a satisfaction level as a prerequisite for loyalty formation. Therefore, there is a research gap between service recovery and customer loyalty.

To address the above research gaps, this study attempts to identify the factors influencing customer loyalty in the telecommunications business segment from a relationship marketing (RM) theory perspective. According to Mcilroy & Barnett (2000), loyalty can be built through long-term relationships that provide value to customers, one of which is satisfaction. Furthermore, according to Octavia Widjaja (2016), a strong and positive relationship through customer satisfaction is key to building loyalty. The higher the level of customer satisfaction and the longer it lasts, the greater the likelihood of customers becoming loyal. This study then focuses on how to shape satisfaction obtained from the perception of service quality. The SERVQUAL model by Parasuraman et al. (1988) is widely believed to assess satisfaction with service quality. However, according to Wang et al. (2006), the telecommunications industry participants require practical guidance on specific service quality factors rather than just dimensions as part of a construct. Hence, order fulfillment, service assurance, and service recovery are quality-related factors derived from the modified SERVQUAL, and satisfaction with these three quality-related factors will make customers more likely to maintain long-term relationships and become loyal. Therefore, the novelty of this research lies in the synergy between RM theory and the SERVQUAL model in developing a conceptual model for how order fulfillment, service recovery, and service assurance significantly and positively impact customer loyalty, mediated by customer satisfaction.

Hypotesis Development

Order Fuflillment

Order fulfillment initially emerged in the field of logistics and is a crucial element in supply chain management, as illustrated by Mauladi et al. (2022). In the era of e-commerce and online marketing, such as online retail businesses, order fulfillment becomes pivotal in swiftly, accurately, and satisfactorily meeting customer orders (Pham & Ahammad, 2017). Therefore, the concept of order fulfillment can be broadly applied, including in the telecommunications industry, to ensure fast and high-quality service delivery in terms of tracking order, timeliness delivery, order accuracy, and delivery condition.

Prior research findings demonstrate that enhancing the quality of order fulfillment can boost customer satisfaction. This is evident from studies conducted by Al-Adwan & Al-Horani (2019), Davis-Sramek et al. (2008), Grif et al. (2012), J. Kim et al. (2009), Limbu et al. (2011), and Pham & Ahammad (2017) in the context of online retailers and e-commerce, as well as Prihartono et al. (2019) in the context of mobile applications. Order fulfillment can be categorized as a component of service quality, as supported by studies by Blut (2016) and Wirapraja et al. (2021). According to the disconfirmation theory, when customers' perceptions of service quality meet or exceed their expectations, it has the potential to increase customer satisfaction. The studies by Camilleri 2022 dan DIAS 2015 indicate that the better order fulfillment, the greater the opportunity to create customer loyalty. Furthermore, the theory of relationship marketing teaches that long-term customer satisfaction can enhance loyalty. Thus, the proposed hypotheses are as follows:

H1a-b : Order fulfillment significantly impacts (a) customer loyalty; and (b) customer satisfaction.

H1c : Order fulfillment indirectly influences customer loyalty significantly through customer satisfaction as a mediator.

Service Assurance

Service assurance is a modification of the assurance dimension in Parasuraman et al. (1988) SERVQUAL model. In the original model, employees instill trust and confidence in service quality. However, in service assurance, this concept is broadened to encompass the service provider itself as the trusted and convincing source. In the telecommunications context, service providers must establish themselves as reliable and credible, especially as leading internet service providers. They should maintain a convincing and trustworthy image, ensuring top-notch network quality, providing a sense of safety and security, trust and

confidence, including the assurance of privation data protection, and ensuring a attention and polite customer relationship.

Previous research by Belwal & Amireh (2018) has found a positive relationship between assurance and customer loyalty. Furthermore, according to the study by Song et al. (2017), there is a connection between security assurance and customer satisfaction. Izogo (2017) suggests that service assurance is an adaptation of the SERVQUAL service quality model. According to the disconfirmation theory, when customers perceive that service quality meets or exceeds their expectations, it has the potential to enhance customer satisfaction. Moreover, relationship marketing theory teaches that long-term customer satisfaction can increase loyalty. Therefore, the proposed hypotheses are as follows:

H2a-b: Service assurance significantly influences (a) customer loyalty; and (b) customer satisfaction.

H1c: Service assurance indirectly and significantly affects customer loyalty through customer satisfaction as a mediator.

Service Recovery

The concept of service recovery suggests that, even though service failures can occur in any company, including the best ones, what matters most is how the company can respond to rectify the situation and restore customer trust (Chang & Chang, 2010). In the telecommunications industry, where fierce competition is exacerbated by the digital era, allowing customers to easily share their experiences, service recovery is crucial for maintaining emotional relationships with customers and preventing the negative influence of social media when complaints or issues arise due to service failure (Cheng et al. 2019). Service recovery is measured using the justice theory with dimensions of distributional (good outcomes), interactional (attentive and polite relationships), and procedural (smooth processes or procedures).

According to Pai et al. (2019), customers who are satisfied with service recovery in the context of the tourism business will be loyal and recommend the business to their colleagues. Subsequent studies reveal a significant positive relationship between service recovery and customer satisfaction, as seen in ZAID et al. (2021), where an effective and efficient service recovery process in logistics service providers can enhance customer satisfaction and the company's image in the eyes of customers. The level of service recovery has an impact on customer perceptions of service quality after a service failure (Van Vaerenbergh et al. 2019), and according to disconfirmation theory, when customer perceptions of service

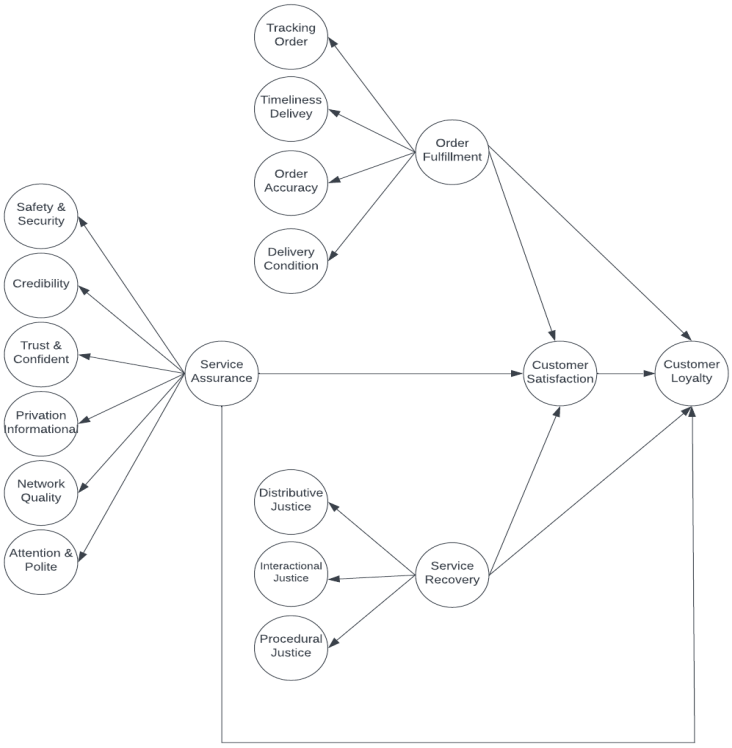
quality meet or even exceed their expectations, this has the potential to increase customer satisfaction. Additionally, relationship marketing theory teaches that long-term customer satisfaction can enhance loyalty. Therefore, the proposed hypotheses are as follows:
H3a-b: Service recovery significantly affects (a) customer loyalty; and (b) customer satisfaction.
H3c: Service recovery indirectly affects customer loyalty through customer satisfaction as a mediator.

Customer satisfaction and Customer loyalty

The results of numerous studies across various sectors have shown a significant positive relationship between customer satisfaction and customer loyalty. Therefore, it is widely accepted in the literature that customer satisfaction is a prerequisite for building customer loyalty (Cheng et al. 2019). Customer satisfaction can influence loyalty and the intention to switch to another service provider. Hence, whenever customers are dissatisfied with the service, they are likely to switch to a different brand (Moreira et al. 2016). Furthermore, satisfied customers are less likely to switch to another service provider and are even willing to recommend their current service provider to others (Shahzad et al. 2021). Service providers that excel in serving their customers better than their competitors will find it easier to build loyalty (Oliver, 1999). Additionally, the theory of relationship marketing teaches that long-term customer satisfaction can enhance loyalty. Therefore, the hypothesis is as follows:
H4: Customer satisfaction significantly influences customer loyalty.

Figure 1.

Research Framework



METHOD

Research used a quantitative approach, collecting primary data through questionnaires in both hardcopy and softcopy formats, such as Google Forms. The sampling technique was purposive sampling, selecting representative and relevant respondents for the research objective, which is the person in charge internet management from wholesale segment customers of PT. Telekomunikasi Indonesia Jateng & Yogya. The wholesale segment is a B2B segment because the customers in this segment are other companies, government entities, or institutions, either for self-consumption or resale (Hutt & Speh 2010).

The questionnaire consists of two parts: the first part covers respondent profile information (gender, education, age), and the second part includes research variables and indicators, comprising 39 questions rated on a 5-point Likert scale, where 1 = Strongly Disagree (SD) and 5 = Strongly Agree (SA).

As of March 2023, the population of wholesale segment customers is 1912. Using the Slovin formula with a population (N) of 1912 and a 5% error margin,

the minimum sample size (n) is calculated as n = 1912 / (1 + 1912 * (0.05)^2) = 330.7958, rounded up to 331 respondents. According to Andrade (2020), having a larger sample than necessary is better as it leads to more accurate results, so efforts are made to exceed 331 respondents, with the final result was 363 respondents.

Inferential analysis is conducted using SEM PLS (Structural Equation Modeling Partial Least Squares) to examine the relationships between variables, utilizing SmartPLS 3.0 software. Two models are employed, the first is a second-order model for order fulfillment, service assurance, and service recovery variables. The second model is a first-order model for customer loyalty and customer satisfaction variables. Before analyzing path relationships, fit validity checks and Confirmatory Factor Analysis (CFA) is performed. CFA includes assessing construct validity (convergent and discriminant validity).

RESULT AND DISCUSSION

The result of a descriptive analysis for 363 respondents provides information on the characteristics of the respondents in terms of gender, education, and age, as shown in Table 1

Table 1.
Responden Characteristics

Responden Characteristic		Amount (Responden)	Percentage (%)
Gender	Male	340	93.66%
	Female	23	6.34%
Subtotal		**363**	**100%**
Age	< 20	4	1.10%
	<20	1	0.28%
	>50	3	0.83%
	21-35	251	69.15%
	36-50	104	28.65%
Subtotal		**363**	**100%**
Education	S1/D4	155	42.70%

	High School	146	40.22%
	D1 s/d D3	56	15.43%
	S2	5	1.38%
	S3	1	0.28%%
Subtotal		**363**	**100%**

Source: Primary Data (2023)

Confirmatory Factor Analysis (CFA)

Before conducting path analysis in PLS-SEM, preliminary evaluation is required. One of the methods used is Confirmatory Factor Analysis (CFA), which is employed to test or assess the extent to which the measured variables (indicators) genuinely represent the proposed constructs (latent variables). This ensures that the developed (researched) model aligns with its theoretical framework. According to Hair et al. (2014), construct validity through CFA encompasses two components: convergent and discriminant validity. Convergent validity is assessed by evaluating the loading factor at the indicator level, while at the variable level use the Average Variance Extracted (AVE) and reliability values (composite reliability and cronbach's alpha). Discriminant validity is assessed through loading factor for indicator level, and the Fornell-Larcker criterion for variabel level (Hair et al. 2011). The minimum required values for convergence and discriminant validity as per Table 2 (Hair et al. 2014) and (Hair et al. 2011), while the results of convergent validity are presented in Tables 3 to Tabel 6.

Table 2.
Minimun Required Value

Component	Criteria	Minimal Value
Convergence Validity	Loading Factor	> 0.7 for confirmatory research > 0.6 for exploratory research
	AVE	> 0.5
	Composite Reliability	> 0.7
	Cronbach's Alpha	> 0.7
Discriminant Validity	Cross Loading	Indicator values higher to their own latent

	Fornell-larcker Criterion	Variable values higher to themselves

Source: Personal

Table 3.

Convergent Validity of Order Fulfillment

Construct	Dimention	Item Code	Loading Factor	AVE	Composite Reliability	Cronbach's Alpha
Order Fulfillment	Tracking order	OF1	0.955	0.91	0.95	0,90
		OF2	0.955			
	Timeliness Delivery	OF3	0.953	0.91	0.98	0.95
		OF4	0.946			
		OF5	0.956			
	Order Accuracy	OF6	0.968	0.94	0.97	0.93
		OF7	0.967			
	Delivery Condition	OF8	0.961	0.92	0.96	0.92
		OF9	0.960			

Source: Data processed through SmartPLS 3.0 (2023)

Table 4.

Convergence Validity of Service Assurance

Construct	Dimenstion	Item Code	Loading Factor	AVE	Composite Reliability	Cronbach's Alpha
Service Assurance	Safety & Security	SA1	0.950	0.91	0.97	0,95
		SA2	0.952			
		SA3	0.955			
	Credibility	SA4	0.963	0.93	0.96	0.92
		SA5	0.964			

	Trust & Confident	SA6	1.0	1.0	1.0	1.0
	Privation Informational	SA7	0.964	0.93	0.96	0.92
		SA8	0.963			
	Network Quality	SA9	0.95	0.91	0.97	0.95
		SA10	0.956			
		SA11	0.955			
	Attention & Polite	SA12	0.966	0.93	0.97	0.93
		SA13	0.965			

Source: Data processed through SmartPLS 3.0 (2023)

Tabel 5.
Convergence Validity of Service Recovery

Construct	Dimention	Indicator	Loading Factor	AVE	Composite Reliability	Cronbach's Alpha
Service Recovery	Distributive Justice	SR1	0.959	0.92	0.96	0,92
		SR2	0.962			
	Interactional Justice	SR3	0.954	0.90	0.97	0.95
		SR4	0.949			
		SR5	0.949			
	Procedural Justice	SR6	0.951	0.91	0.97	0.95
		SR7	0.963			
		SR8	0.951			

Source: Data processed through SmartPLS 3.0 (2023)

Table 6.

Convergence Validity of Customer Satisfaction and Loyalty

Construct	Indicator	Loading Factor	AVE	Composite Reliability	Cronbach's Alpha
Customer Satisfaction	CS1	0.951	0,90	0,97	0,96
	CS2	0.949			
	CS3	0.956			
	CS4	0.929			
Customer Loyalt	CL1	0.929	0,86	0,97	0,96
	CL2	0.945			
	CL3	0.943			
	CL4	0.902			
	CL5	0.931			

Source: Data processed through SmartPLS 3.0 (2023)

Discriminant Validity

According to Hair et al. (2014), discriminant validity is used to test the differences between constructs or variables, and applied at the indicator and variable levels. Table 7 and Table 8 show the results of discriminant validity tests for indicators and variables levels. The results indicate that all levels pass the discriminant validity test.

Table 7.

Discriminant Validity of Indicator Level (Cross Loading)

	Attention & Polite	Credibility	Customer Loyalty	Customer Satisfaction	Delivery Condition	Distributive Justice	Interactional Justice	Network Quality	Order Accuracy_	Privation Informational	Procedural Justice	Safety & Security	Timeliness Delivery	Tracking Order	Trust & Confident
CL1	0.837	0.827	0.929	0.866	0.774	0.838	0.834	0.864	0.760	0.829	0.843	0.844	0.780	0.777	0.806
CL2	0.887	0.874	0.945	0.902	0.820	0.865	0.882	0.872	0.820	0.871	0.898	0.880	0.832	0.830	0.821
CL3	0.860	0.851	0.943	0.892	0.802	0.843	0.867	0.867	0.816	0.851	0.872	0.849	0.806	0.809	0.822
CL4	0.747	0.764	0.902	0.801	0.666	0.751	0.740	0.786	0.670	0.755	0.768	0.778	0.695	0.671	0.722
CL5	0.836	0.855	0.931	0.860	0.756	0.834	0.818	0.856	0.771	0.834	0.852	0.832	0.771	0.781	0.786
CS1	0.893	0.881	0.885	0.951	0.835	0.876	0.903	0.892	0.851	0.876	0.905	0.885	0.843	0.827	0.849
CS2	0.886	0.879	0.879	0.949	0.825	0.872	0.892	0.892	0.826	0.874	0.899	0.886	0.834	0.814	0.834
CS3	0.882	0.870	0.876	0.956	0.834	0.870	0.896	0.881	0.843	0.872	0.892	0.881	0.854	0.838	0.849
CS4	0.847	0.856	0.880	0.929	0.788	0.859	0.834	0.867	0.811	0.861	0.881	0.852	0.812	0.797	0.813
OF1	0.807	0.822	0.775	0.817	0.824	0.812	0.818	0.811	0.842	0.824	0.836	0.825	0.841	0.955	0.763
OF2	0.838	0.831	0.818	0.837	0.832	0.802	0.832	0.803	0.831	0.815	0.838	0.821	0.831	0.955	0.763
OF3	0.829	0.826	0.778	0.833	0.855	0.791	0.817	0.821	0.860	0.829	0.813	0.817	0.953	0.833	0.768
OF4	0.824	0.825	0.815	0.838	0.822	0.801	0.829	0.829	0.847	0.823	0.828	0.821	0.946	0.820	0.764
OF5	0.841	0.816	0.798	0.851	0.851	0.815	0.835	0.832	0.877	0.842	0.837	0.822	0.956	0.848	0.791
OF6	0.848	0.834	0.802	0.853	0.887	0.828	0.861	0.838	0.968	0.853	0.854	0.846	0.877	0.862	0.803
OF7	0.823	0.824	0.799	0.850	0.888	0.825	0.829	0.832	0.967	0.832	0.839	0.819	0.874	0.833	0.778
OF8	0.830	0.817	0.787	0.836	0.961	0.811	0.819	0.827	0.886	0.797	0.835	0.813	0.854	0.836	0.763
OF9	0.846	0.830	0.794	0.830	0.960	0.817	0.834	0.821	0.876	0.823	0.836	0.840	0.847	0.830	0.784
SA1	0.882	0.892	0.859	0.878	0.840	0.856	0.873	0.882	0.830	0.878	0.883	0.950	0.822	0.830	0.837
SA2	0.864	0.885	0.856	0.884	0.798	0.853	0.867	0.879	0.803	0.893	0.878	0.952	0.802	0.819	0.872
SA3	0.866	0.893	0.857	0.883	0.820	0.851	0.856	0.876	0.825	0.903	0.876	0.955	0.837	0.814	0.853
SA4	0.888	0.963	0.861	0.887	0.845	0.856	0.874	0.884	0.848	0.887	0.879	0.889	0.849	0.838	0.862
SA5	0.897	0.964	0.869	0.888	0.807	0.859	0.870	0.898	0.803	0.902	0.898	0.911	0.815	0.829	0.858
SA6	0.880	0.893	0.852	0.884	0.805	0.862	0.873	0.897	0.817	0.899	0.880	0.897	0.814	0.799	1.000
SA7	0.887	0.906	0.862	0.889	0.824	0.855	0.859	0.907	0.843	0.964	0.882	0.904	0.846	0.832	0.881
SA8	0.878	0.883	0.856	0.884	0.800	0.848	0.874	0.885	0.835	0.963	0.889	0.900	0.837	0.822	0.850
SA9	0.890	0.868	0.877	0.885	0.813	0.857	0.851	0.953	0.804	0.879	0.882	0.880	0.814	0.798	0.837
SA10	0.895	0.893	0.865	0.893	0.813	0.847	0.876	0.956	0.820	0.892	0.877	0.880	0.826	0.796	0.861
SA11	0.893	0.888	0.876	0.895	0.831	0.892	0.887	0.955	0.848	0.893	0.898	0.884	0.850	0.828	0.872
SA12	0.966	0.891	0.859	0.892	0.837	0.882	0.903	0.910	0.828	0.896	0.909	0.888	0.845	0.830	0.865
SA13	0.965	0.899	0.875	0.898	0.847	0.877	0.901	0.896	0.839	0.872	0.911	0.877	0.841	0.832	0.835
SR1	0.855	0.829	0.850	0.865	0.791	0.959	0.855	0.854	0.805	0.832	0.875	0.845	0.781	0.798	0.802
SR2	0.894	0.881	0.859	0.899	0.836	0.962	0.882	0.887	0.835	0.865	0.909	0.876	0.838	0.825	0.853
SR3	0.903	0.874	0.858	0.895	0.845	0.881	0.954	0.879	0.836	0.870	0.908	0.879	0.836	0.844	0.835
SR4	0.884	0.845	0.834	0.869	0.797	0.829	0.949	0.859	0.826	0.857	0.885	0.841	0.819	0.808	0.823
SR5	0.877	0.863	0.853	0.893	0.811	0.869	0.949	0.866	0.829	0.838	0.891	0.871	0.823	0.811	0.831
SR6	0.910	0.898	0.871	0.908	0.821	0.886	0.902	0.894	0.829	0.895	0.951	0.888	0.819	0.834	0.860
SR7	0.907	0.883	0.884	0.916	0.842	0.901	0.908	0.900	0.846	0.886	0.963	0.896	0.842	0.844	0.845
SR8	0.883	0.863	0.857	0.883	0.829	0.874	0.887	0.863	0.832	0.851	0.951	0.860	0.825	0.832	0.815

Source: Data processed through SmartPLS 3.0 (2023)

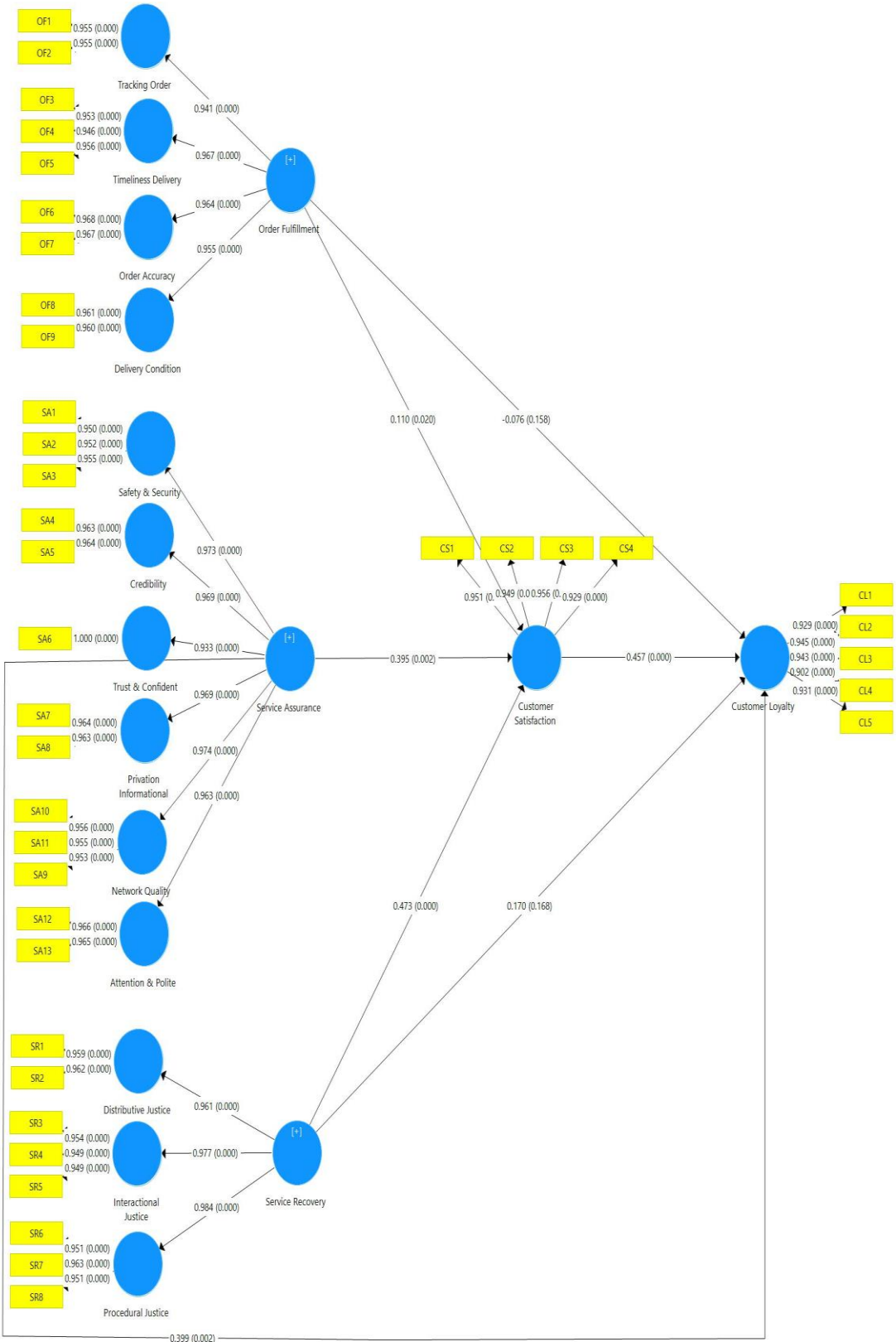
Table 8.
Discriminant Validity of Variabel Level (Fornell-larcker Criterion)

	Attention & Polite	Credibility	Customer Loyalty	Customer Satisfaction	Delivery Condition	Distributive Justice	Interactional Justice	Network Quality	Order Accuracy_	Privation Informational	Procedural Justice	Safety & Security	Timeliness Delivery	Tracking Order	Trust & Confident
Attention & Polite	0.965														
Credibility	0.927	0.963													
Customer Loyalty	0.898	0.898	0.930												
Customer Satisfaction	0.927	0.921	0.930	0.946											
Delivery Condition	0.872	0.858	0.823	0.867	0.961										
Distributive Justice	0.911	0.890	0.890	0.919	0.847	0.961									
Interactional Justice	0.934	0.905	0.892	0.932	0.860	0.905	0.951								
Network Quality	0.935	0.925	0.914	0.933	0.858	0.907	0.913	0.955							
Order Accuracy_	0.864	0.857	0.827	0.881	0.917	0.854	0.873	0.863	0.968						
Privation Informational	0.916	0.929	0.891	0.920	0.843	0.884	0.899	0.930	0.871	0.963					
Procedural Justice	0.942	0.923	0.912	0.945	0.870	0.929	0.941	0.928	0.875	0.919	0.955				
Safety & Security	0.914	0.934	0.901	0.926	0.860	0.896	0.908	0.923	0.861	0.936	0.923	0.952			
Timeliness Delivery	0.873	0.864	0.837	0.883	0.886	0.843	0.869	0.870	0.905	0.874	0.868	0.861	0.952		
Tracking Order	0.861	0.865	0.834	0.866	0.867	0.845	0.864	0.846	0.876	0.858	0.876	0.862	0.876	0.955	
Trust & Confident	0.880	0.893	0.852	0.884	0.805	0.862	0.873	0.897	0.817	0.899	0.880	0.897	0.814	0.799	1.000

Source: Data processed through SmartPLS 3.0 (2023)

Figure 4. 1

The Result of Full Model Analysis



Source: Data processed through SmartPLS 3.0 (2023)

Fit Validity Test Results

Evaluating fit validity alongside construct validity is essential. Goodness-of-Fit (GOF) tests assess how well a research model represents real data. Higher GOF values often indicate a better model, while other using smaller values known as Badness-of-Fit. SRMR (Standardized Root Mean Residual) is one Badness-of-Fit measure, with values below 0.08 indicating a good model and values above 0.1 indicating a poor model (Hair et al. 2014). In this study, Table 9 confirms the structural model's consistency and robustness based on the literature reference

Table 9.
Goodness-of-fit (GoF) Results

No	GoF Type	Value	Result
1	SRMR	0,026	Robust Model

Path Analysis Test Results with PLS-SEM

After the validation assessment successfully meets the criteria, it is followed by path analysis to examine the relationships between variables in the research. This analysis distinguishes between direct paths (without mediation) and indirect paths (involving mediating variables). Identifying the relationships between variables is done to determine the strength (path coefficient) and significance (P value < 0.05), enabling an understanding of the important/strong paths within the research model.

Table 5.
Research Hypothesis Test

Hipotesis	**Hypothesis**	***Path Coefficient*/P *Values***	**Kesimpulan**
H1a	OF – CL	-0.076 NS	Not Supported
H1b	OF – CS	0.110**	Supported

H1c	OF – CS – CS	0.050**	Supported
H2a	SA – CL	0.399*	Supported
H2b	SA – CS	0.395*	Supported
H2c	SA – CS – CL	0,181**	Supported
H3a	SR – CL	0.170 NS	Not Supported
H3b	SR – CS	0.473*	Supported
H3c	SR – CS – CL	0.216*	Supported
H4	CS –CL	0.457*	Supported

Sumber: Data processed through SmartPLS 3.0 (2023) (**p value* < 0,01; ***p value* < 0,05)

RESULTS AND DISCUSSION

Hypothesis H1a states that order fulfillment does not significantly impact customer loyalty. Despite the company's good results in order completion based on internal KPIs, it does not lead to loyalty. One of the reasons for this is that the customer experience involves numerous touchpoints, and order fulfillment is just one of them. Furthermore, business customers prioritize strong relationships over merely transactional order completion. Thus, in the context of business customers, order fulfillment may not always be the primary factor directly influencing loyalty. The results of this study reinforce the findings of a prior research by Jain et al. (2021). That research focuses on online shopping in India, with indicate that the dimensions of order fulfillment are not always directly associated with loyalty. The variation is due to the fact that the order fulfillment variable cannot directly influence customer loyalty.

Hypothesis H1b states that order fulfillment significantly impact customer satisfaction. This is consistent with the company's excellent performance in meeting customer orders through internal KPIs. Good actual performance meets customer expectations, resulting in satisfaction. Important factors in this regard include timeliness of delivery, order accuracy, delivery condition, and order tracking. Timeliness of delivery is considered the most crucial aspect by customers for their perception of satisfaction with order fulfillment. Finally, this study aligns with the research by Zaato et al. (2023), where accuracy in terms of reliability or

order fulfillment has a direct relationship with customer satisfaction in the context of online shopping on the SHOPEE application.

Hypothesis H1c states that order fulfillment significantly impact customer loyalty through the mediation of customer satisfaction. This relationship can be explained through two empirically proven direct relationships in this research: first, between order fulfillment and customer satisfaction, and second, between customer satisfaction and customer loyalty, thus allowing for customer satisfaction to simultaneously mediate the effect of order fulfillment on customer loyalty. Customer expectations met in terms of order fulfillment levels will result in satisfaction, which, in turn, will lead to loyalty. However, this mediation has the least impact compared to the other two mediations. The results of this study are in line with the research by Zaato et al. (2023), where order reliability accuracy has an indirect relationship with customer loyalty through the mediation of customer satisfaction in the context of online shopping using the SHOPEE application.

Hypothesis H2a states that service assurance significantly impact customer loyalty. This is because service assurance represents a company's ability to be a source of trust for customers, with a convincing and reliable image. The strength of this convincing and reliable image creates customer expectations of remaining loyal, particularly in the context of B2B business where changing internet service providers can pose operational risks and potential losses. Furthermore, because it is based on the image rather than customer experience, the weight of this relationship is even higher than the weight of the relationship between service assurance and customer satisfaction. These results are consistent with the study by Dandis & Wright (2020) in the context of Islamic Banks in Jordan, where assurance, defined as the knowledge and courtesy of employees to inspire customer trust and confidence, is directly related to customer loyalty.

Hypothesis H2b states that service assurance significantly impact customer satisfaction. Service sssurance encompasses guarantees of a good reputation, commitment to factors such as digital security and protection of personal information, a focus on customer relationships, and high-quality internet network. In business marketing, internet services play a crucial role in customer operations, so meeting expectations for the above guarantees will result in satisfaction. This aligns with the company in the research context, which is a leading and prominent internet service provider in Indonesia. The satisfaction level from service assurance carries more weight than order fulfillment, although below service recovery, with customers placing a primary emphasis on network quality. The findings of this study are consistent with prior research by C. C. Cheng et al. (2021), where the knowledge and skills of couriers in online food delivery

companies build customer trust and contribute to customer satisfaction perceptions.

Hypothesis H2c states that service assurance significantly impact customer loyalty through the mediation of customer satisfaction, The results are consistent with two empirical findings from previous research in this study, namely the relationship between service assurance and customer satisfaction, and between customer satisfaction and customer loyalty. This allows for simultaneous mediation of service assurance on customer loyalty by customer satisfaction. A level of service assurance that meets customer expectations will lead to satisfaction, which, in turn, has the potential to result in loyalty. The weight of this mediation is higher than that of order fulfillment but lower than that of service recovery mediation. The results of this study support the findings of previous research by Agarwal & Dhingra (2023). In that study, assurance is directly related to service quality, service quality is related to customer satisfaction, and customer satisfaction has a direct relationship with customer loyalty, allowing for simultaneous mediation among assurance, customer satisfaction, and customer loyalty.

Hypothesis H3a states that service recovery does not significantly impact customer loyalty. The company has actually established KPI for both individuals and units in handling service failure, with the target resolution time set below predetermined benchmarks. The research results indicate that, even though the service recovery KPIs are met, it does not lead to customer loyalty. This is due to factors such as intense competition, emphasizing the importance of product/service differentiation, limitations on service failure frequency on customers, and the need for strong relationships with business customers that can serve as a positive boost when the level of service recovery does not meet customer expectations. The results of this study reinforce the findings from the research by Phan et al. (2021). In that study, it was found that the dimensions of service recovery (distributional, interactional, procedural) were not consistently related to customer loyalty. The occurrence of such variations can be explained by the current research, as service recovery does not have a direct relationship with customer loyalty.

Hypothesis H3b states that service recovery significantly impact customer satisfaction. This relationship occurs because the company is capable of meeting or even exceeding customer expectations in handling service failure, which has a positive impact on the perception of satisfaction. These results are supported through the company's strict monitoring of service failure handling using KPI metrics for both individuals and units. In a business context, internet connectivity

is of utmost importance, which is why empirically, the weight of service recovery from service failure is the most significant factor influencing satisfaction. The research findings also indicate that customers are more focused on aspects of procedural justice (easy escalation processes and customer-oriented procedures). The results of this study also align with the findings of the research conducted by Ali et al. (2023). In that study, perceive recovery justice (with dimensions of distribution, interactional, and procedural justice) is directly related to satisfaction.

Hypothesis H3c states that service recovery significantly impact customer loyalty through the mediation of customer satisfaction. The results of this study previously stated that service recovery has a direct relationship with customer satisfaction, and customer satisfaction has a direct relationship with customer loyalty. Therefore, concurrently, customer satisfaction should play a role as a mediator of service recovery on customer loyalty. Thus, the identified relationships align with the expected logic. Service recovery is highly important for business customers. This is empirically proven, where its weight is the largest both directly on satisfaction and indirectly on loyalty. These results are consistent with previous research by Ali et al. (2023). In their study, satisfaction mediated the relationship between perceived recovery justice and the intention to repurchase in the context of automotive insurance in Pakistan.

Hypothesis H4 states that customer satisfaction significantly impact customer loyalty. Satisfaction occurs when a company can meet or even exceed the initial expectations of customers. This satisfaction has a positive impact on retaining customers and establishing lasting relationships. This research reinforces the importance of customer satisfaction in the context of relationship marketing, where providing value to customers, including satisfaction, can enhance loyalty. The results of this study align with previous research by Asghar Ali et al. (2021). The research provides empirical evidence that satisfaction is directly related to re-patronage intention in the context of automotive insurance in Pakistan.

CONCLUSION AND RECOMMENDATION

This research confirms the synergy between relationship marketing and the SERVQUAL model in shaping customer loyalty. Relationship marketing emphasizes the importance of providing value to customers, including through satisfaction, which, in turn, strengthens long-term relationships with the company. Satisfaction assessment is based on the perception of service quality using the SERVQUAL model. In other words, the SERVQUAL model assumes that service quality meeting customer expectations can generate satisfaction. In the context of the telecommunications industry, specific measurements of service quality are

needed beyond general dimensions. In this study, the specific service quality dimensions are order fulfillment, service assurance, and service recovery. The research results, demonstrating consistent mediation of these three variables on customer loyalty, indicate that satisfaction resulting from the quality of order fulfillment, service assurance, and service recovery can be used to build long-term relationships and create customer loyalty.

This research has practical implications for the telecommunications industry in Indonesia. The study's findings underscore the importance of establishing long-term relationships with customers, with a focus on providing value through satisfaction. Satisfaction can be used as a strategy to achieve profitable customer loyalty in the future. Therefore, companies are advised to cultivate satisfaction by delivering specialized service quality that aligns with the telecommunications context, such as order fulfillment, service assurance, and service recovery. Well-executed order fulfillment with quick order completion timeliness, service assurance that emphasizes reliable and convincing good network quality, and efficient service recovery procedures can all be leveraged as strategies to differentiate from competitors and create high customer satisfaction that drives customer loyalty. The company also needs to focus on service recovery for internet connectivity in the event of service failures for customers. This is because service recovery has the highest weight in direct relation to satisfaction or in the mediating relationship to loyalty through satisfaction. This indicates the importance of internet service stability for business customers.

This study has limitations, primarily due to the organizational structure changes at PT. Telekomunikasi Indonesia during the research, which made it impossible to group respondents based on subscription age and service failure frequency. Furthermore, the variables of order fulfillment and service recovery do not have a direct relationship with customer loyalty, suggesting the consideration of other variables such as trust and commitment as mediators. The dimension of order fulfillment also requires further exploration to potentially discover dimensions that can enhance the impact of order fulfillment on satisfaction and loyalty. In the end, a company should not solely rely on actual performance, as good KPI performance alone may not result in loyalty. Companies should also avoid falling into the trap of a trustworthy and convincing image built solely through marketing messages like advertisements and promotions, although a trustworthy and convincing image can be related to loyalty, it needs to be balanced with real evidence through good service quality.

REFERENCES

Agarwal, R., & Dhingra, S. (2023). Factors influencing cloud service quality and their relationship with customer satisfaction and loyalty. *Heliyon*, *9*(4), e15177. https://doi.org/10.1016/j.heliyon.2023.e15177

Al-Adwan, A. S., & Al-Horani, M. A. (2019). Boosting customer e-loyalty: An extended scale of online service quality. *Information (Switzerland)*, *10*(12), 1–27. https://doi.org/10.3390/info10120380

Ali, M. A., Ting, D. H., Isha, A. S. N., Ahmad-Ur-Rehman, M., & Ali, S. (2023). Does service recovery matter? Relationships among perceived recovery justice, recovery satisfaction and customer affection and repurchase intentions: the moderating role of gender. *Journal of Asia Business Studies*, *17*(2), 308–326. https://doi.org/10.1108/JABS-02-2021-0060

Andrade, C. (2020). Sample Size and its Importance in Research. *Indian Journal of Psychological Medicine*, *42*(1), 102–103. https://doi.org/10.4103/IJPSYM.IJPSYM_504_19

Asghar Ali, M., Hooi Ting, D., Ahmad-ur-Rehman, M., Zaib Abbasi, A., & Hussain, Z. (2021). Perceived service recovery justice and customer re-patronage intentions: Sequential mediation. *Cogent Business and Management*, *8*(1). https://doi.org/10.1080/23311975.2021.1938352

Belwal, R., & Amireh, M. (2018). Service quality and attitudinal loyalty: Consumers' perception of two major telecommunication companies in Oman. *Arab Economic and Business Journal*, *13*(2), 197–208. https://doi.org/10.1016/j.aebj.2018.11.003

Blut, M. (2016). E-Service Quality : Development of a Hierarchical Model. *Journal of Retailing*, *92*(4), 500–517. https://doi.org/10.1016/j.jretai.2016.09.002

Camilleri, M. A. (2022). E-commerce websites, consumer order fulfillment and after-sales service satisfaction: the customer is always right, even after the shopping cart check-out. *Journal of Strategy and Management*, *15*(3), 377–396. https://doi.org/10.1108/JSMA-02-2021-0045

Chang, Y. W., & Chang, Y. H. (2010). Does service recovery affect satisfaction and customer loyalty? An empirical study of airline services. *Journal of Air Transport Management*, *16*(6), 340–342. https://doi.org/10.1016/j.jairtraman.2010.05.001

Cheng, B. L., Gan, C. C., Imrie, B. C., & Mansori, S. (2019). Service recovery, customer satisfaction and customer loyalty: evidence from Malaysia's hotel industry. *International Journal of Quality and Service Sciences*, *11*(2), 187–203. https://doi.org/10.1108/IJQSS-09-2017-0081

Cheng, C. C., Chang, Y. Y., & Chen, C. T. (2021). Construction of a service quality scale for the online food delivery industry. *International Journal of*

Hospitality Management, *95*(March), 102938. https://doi.org/10.1016/j.ijhm.2021.102938

Davis-Sramek, B., Mentzer, J. T., & Stank, T. P. (2008). Creating consumer durable retailer customer loyalty through order fulfillment service operations. *Journal of Operations Management*, *26*(6), 781–797. https://doi.org/10.1016/j.jom.2007.07.001

detik.com. (2021). *Memenangkan Persaingan Pasar ISP dengan Paham Customer Experience*. Detik.Com. https://news.detik.com/adv-nhl-detikcom/d-5802433/memenangkan-persaingan-pasar-isp-dengan-paham-customer-experience

Dewi, N. S. (2021). *Potensi Pasar Fixed Broadband Indonesia, Ini yang Harus di Siapkan Perusahaan Provider !* Digination.Id. https://www.digination.id/read/017379/potensi-pasar-fixed-broadband-indonesia-ini-yang-harus-di-siapkan-perusahaan-provider

DIAS, A. M. F. S. (2015). *ORDER FULFILLMENT AS MEAN OF CUSTOMER LOYALTY FOR PURE PLAYERS*. Lisbon School of Economics & Management.

Grif, S. E., Rao, S., Goldsby, T. J., Voorhees, C. M., & Iyengar, D. (2012). *Linking Order Ful fi llment Performance to Referrals in Online Retailing : An Empirical Analysis*. *33*(4), 279–294. https://doi.org/https://doi.org/10.1111/jbl.12002

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate Data Analysis* (7th ed.). Pearson Education Limited.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory and Practice*, *19*(2), 139–152. https://doi.org/10.2753/MTP1069-6679190202

Hutt, M. D., & Speh, T. W. (2010). *Business Marketing Management: B2B* (10th ed.). South-Western Cengage Learning.

Ismail, A., & Yunan, Y. S. M. (2016). Service Quality As a Predictor of Customer Satisfaction and Customer Loyalty in Malaysia Army Medical. *LogForum*, *November*. https://doi.org/https://doi.org/10.17270/J.LOG.2016.4.7

Izogo, E. E. (2017). Customer loyalty in telecom service sector: The role of service quality and customer commitment. *TQM Journal*, *29*(1), 19–36. https://doi.org/10.1108/TQM-10-2014-0089

Jain, N. K., Gajjar, H., & Shah, B. J. (2021). Electronic logistics service quality and repurchase intention in e-tailing: Catalytic role of shopping satisfaction, payment options, gender and returning experience. *Journal of Retailing and Consumer Services*, *59*(March), 102360. https://doi.org/10.1016/j.jretconser.2020.102360

Kim, J., Jin, B., & Swinney, J. L. (2009). The role of etail quality, e-satisfaction and e-trust in online loyalty development process. *Journal of Retailing and*

Consumer Services, *16*(4), 239–247. https://doi.org/https://doi.org/10.1016/j.jretconser.2008.11.019

Limbu, Y. B., Wolf, M., & Lunsford, D. L. (2011). Consumers' perceptions of online ethics and its effects on satisfaction and loyalty. *Journal of Research in Interactive Marketing*, *5*(1), 71–89. https://doi.org/10.1108/17505931111121534

Mauladi, M., Mulyo, J., & Darwanto, D. (2022). Coffee Supply Chain Management: A Case Study In Ciamis, West Java, Indonesia. *Habitat*, *33*(3), 201–211. https://doi.org/10.21776/ub.habitat.2022.033.3.20

Mcilroy, A., & Barnett, S. (2000). Building customer relationships: Do discount cards work? *Managing Service Quality: An International Journal*, *10*(6), 347–355. https://doi.org/10.1108/09604520010351491

Mohamad, S., Norulkamar, U., Ahmad, U., & Shu, L. (2012). Factors Contributing to Customer Loyalty Towards Telecommunication Service Provider. *Procedia - Social and Behavioral Sciences*, *40*(6), 282–286. https://doi.org/10.1016/j.sbspro.2012.03.192

Moreira, A. C., Silva, P. M., & Moutinho, V. F. (2016). Differences between stayers, switchers, and heavy switchers. *Marketing Intelligence & Planning*, *34*(6), 843–862. https://doi.org/10.1108/MIP-07-2015-0128

Octavia Widjaja, C. (2016). Pengaruh Relationship Marketing Terhadap Customer Loyalty Dan Customer Satisfaction Sebagai Variabel Intervening Pada Pt. Fuboru Indonesia Di Surabaya. *Jurnal Manajemen Pemasaran*, *10*(2), 52–58. https://doi.org/10.9744/pemasaran.10.2.52-58

Oliver, R. L. (1999). Whence Consumer Loyalty? *Journal of Marketing*, *63*(4_suppl1), 33–44. https://doi.org/10.1177/00222429990634s105

Pai, C. H., Ko, K. M., & Santos, T. (2019). A study of the effect of service recovery on customer loyalty based on marketing word of mouth in tourism industry. *Revista de Cercetare Si Interventie Sociala*, *64*, 74–84. https://doi.org/10.33788/rcis.64.6

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A_Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing and Consumer Services*, *64*.

Pham, T. S. H., & Ahammad, M. F. (2017). Antecedents and consequences of online customer satisfaction: A holistic process perspective. *Technological Forecasting and Social Change*, *124*(March 2016), 332–342. https://doi.org/10.1016/j.techfore.2017.04.003

Phan, A. C., Nguyen, H. T., & Pham, T. X. T. (2021). Relationship between service recovery, customer satisfaction and customer loyalty: Empirical evidence from e-retailing. *Uncertain Supply Chain Management*, *9*(1), 1–10. https://doi.org/10.5267/j.uscm.2020.12.007

Pink, M., & Djohan, N. (2021). Effect Of Ecommerce Post-Purchase Activities On

Customer Retention In Shopee Indonesia. *Enrichment: Journal of Management*, *12*(1), 519–526.

Prihartono, B., Ashari, M. A., & Rizkiana, A. (2019). The Development of Customer Loyalty Model for Mobile Travel Agent Application. *Jurnal Teknik Industri*, *21*(1), 1–11. https://doi.org/10.22219/jtiumm.vol21.no1.1-11

Puranda, N. R., Ariyanti, M., & Ghina, A. (2022). The Effect of E-Service Quality on E-Loyalty With E-Satisfaction as an Intervening for GoFood Application Users. *Italienisch*, *12*(1), 218–226. http://www.italienisch.nl/index.php/VerlagSauerlander/article/view/189

Rashid, M. H. U., Nurunnabi, M., Rahman, M., & Masud, M. A. K. (2020). Exploring the relationship between customer loyalty and financial performance of banks: Customer open innovation perspective. *Journal of Open Innovation: Technology, Market, and Complexity*, *6*(4), 1–19. https://doi.org/10.3390/joitmc6040108

Septiani, L. (2022). *Ada Perang Harga, Tarif Internet Indonesia Termurah dari 211 Negara*. Katadata.Co.Id. https://katadata.co.id/tiakomalasari/digital/63589059acd6f/ada-perang-harga-tarif-internet-indonesia-termurah-dari-211-negara

Shahzad, A., Yaqub, R. M. S., Di Vaio, A., & Hassan, R. (2021). Antecedents of customer loyalty and performance improvement: Evidence from Pakistan's telecommunications sector. *Utilities Policy*, *70*(March), 101208. https://doi.org/10.1016/j.jup.2021.101208

Slack, N., Singh, G., & Sharma, S. (2020). The effect of supermarket service quality dimensions and customer satisfaction on customer loyalty and disloyalty dimensions. *International Journal of Quality and Service Sciences*, *12*(3), 297–318. https://doi.org/10.1108/IJQSS-10-2019-0114

Song, T., Pham, H., & Faisal, M. (2017). Antecedents and consequences of online customer satisfaction : A holistic process perspective. *Technological Forecasting & Social Change*, *March 2016*, 0–1. https://doi.org/10.1016/j.techfore.2017.04.003

Suharno. (2023). *APJII Sebut Pengguna Internet Indonesia Tumbuh hingga 210 Juta Tahun 2022*. Selular.Id. https://selular.id/2023/01/apjii-sebut-pengguna-internet-indonesia-tumbuh-hingga-210-juta-tahun-2022/

Wang, Y., Hing, P. L., & Yang, Y. (2006). An integrated framework for an integrated framework for service quality , customer value , satisfaction : Evidence from China' telecommunication industry. *Kluwer Academic Publishers*, *December 2004*, 325–340. https://doi.org/10.1023/B:ISFI.0000046375.72726.67

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

Zaato, S. G., Zainol, N. R., Khan, S., Rehman, A. U., Faridi, M. R., & Khan, A. A. (2023). The Mediating Role of Customer Satisfaction between Antecedent Factors and Brand Loyalty for the Shopee Application. *Behavioral Sciences*, *13*(7), 1–22. https://doi.org/10.3390/bs13070563

ZAID, S., PALILATI, A., MADJID, R., & BUA, H. (2021). Impact of Service Recovery, Customer Satisfaction, and Corporate Image on Customer Loyalty. *Journal of Asian Finance, Economics and Business*, *8*(1), 961–970. https://doi.org/10.13106/jafeb.2021.vol8.no1.961