The Effect of E-CRM towards Brand Loyalty in Fixed Broadband Services with the Mediation of E-Service Quality and Brand Trust

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ABSTRACT: This research purposes to test and analyze the influence of E-CRM, E-Service Quality, Brand Trust, Customer Satisfaction and analyze the role of E-Service Quality and Brand Trust in mediating the influence of E-CRM on brand loyalty in home fixed broadband services. The sampling design used in this research was non-probability sampling with purposive sampling technique. The data processed came from 261 respondents, then the data was analyzed using the Structural Equation Modeling (SEM) method using SMART-PLS 3.0. The results of this research show that there is a positive influence of E-CRM, E-Service Quality, Brand Trust, Customer Satisfaction on Brand Loyalty .and the positive influence of E-Service Quality and Brand Trust in mediating E-CRM on Brand loyalty. To improve E-CRM, managers can optimize E-CRM on applications and websites through improvements personalization by increasing account activation to prevent unknown people from entering and taking all information by using social media with features that are easy to understand. Apart from that, managers can also optimize E-Service Quality by socializing the use of websites or applications and explaining interesting features about its advantages through media content, to increase brand trust managers need to build a robust system on the web and fixed broadband applications, create a culture of reliability, have metrics that focus on users, while to increase brand loyalty managers need to provide loyalty points or rewards to customers in features -features on the application and website, apart from providing a subscription deposit at the start of a new installation as a customer on fixed broadband services.

KEYWORDS: E-CRM, E-Service Quality, Brand Trust, Customer Satisfaction, Brand Loyalty

INTRODUCTION

Development of business continues to grow and highly competitive, almost companies face the challenge of continuing to improve. Business actors must continue to be creative and innovate regularly in order to remain able to compete with other business actors in the same field. Apart from that, with the development of information and communication technology today, especially the Internet, it has had a big influence in the business world. As a result, the marketing sector has changed to convey targeted messages, a way of generating revenue and facilitating two-way communication with consumers, where the Internet has become a powerful tool for managing electronic customer relationships (Oumar, TK, Mang'unyi, EE, Govender, KK and Rajkaran, 2017).
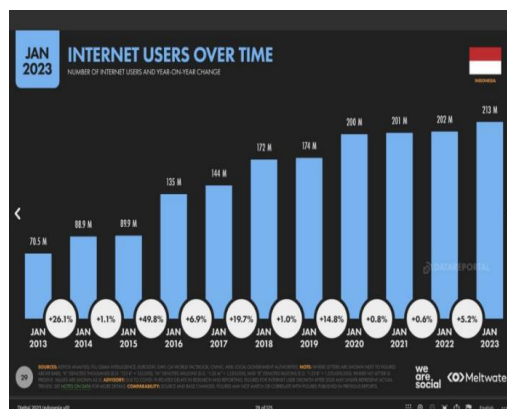

Figure 1. Number of Internet Users in Indonesia

(Source: We Are Social,2023)

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Based on data from the We Are Social (2023) report on internet users, the number of Indonesian people who surf cyberspace is 213 million users, an increase of 5.2% or 11 million compared to 2022. From this data, that means there are around 64 million Indonesian people have not yet been touched by the internet. This is a huge potential for marketing to expand to attract new potential internet user customers and retain these customers. The existence of the Internet influences the business world by providing easy access to information so that it can create more relationships with other business people or the wider community. One of them is that e-commerce has an impact on various business sectors and in particular the field of fixed broadband providers.

Communications technology that provides high-speed, always-on connections to the Internet for large numbers of residential and small business customers is typically referred to as ''broadband''(S. Lee & Brown, 2008).The continued provision of internet protocol (IP) based services such as telephony and video would not have been possible without the successful diffusion of broadband. while fixed broadband is a type of connection that requires a special telephone cable or network cable to connect to the Internet.(Selular.id, 2022). Of the total internet users of 213 million people, only 14.5% use fixed broadband facilities or 30.45 million users. Therefore, the customer potential in this field is still wide open and competition for fixed broadband services is also increasing. (industri.kontan.co.id).

Based on a survey conducted by APJII (Association of Indonesian Internet Service Providers), it is known that the fixed broadband operators that are widely used are IndiHome (67.54%), First Media (3.88%), MNC Vision (2.88%), IConnect (2.24%), BizNet (1.54%), and Oxygen (1.04%). Selular.id (2022) as in Figure 2.
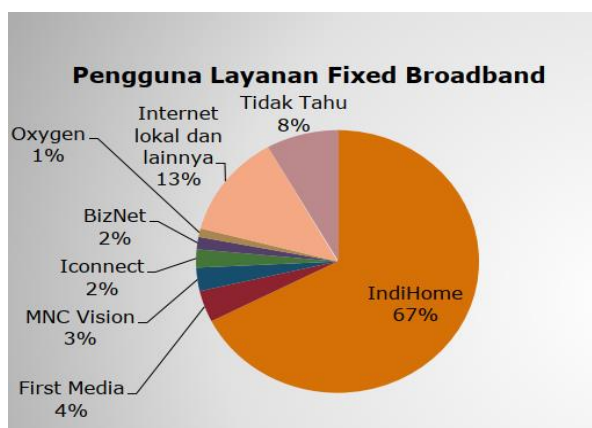

Figure 2. Fixed broadband service users in Indonesia

Conditions of commercial competition in the Indonesian fixed broadband market are very tight. There are 104 packet-switched local fixed network operators in Indonesia (as of April 2021), indicating intense competition. (Selular.id, 2022).

In Facing tight business competition between fixed broadband service providers in the e-commerce era, one strategy that companies can implement is to build customer loyalty. Consumer loyalty is a customer's commitment to a brand, shop, manufacturer, service provider and other entity based on favorable attitudes and reactions. Maintaining customer loyalty is very important, because the number of customers can determine the success or failure of a company. Benefits obtained when gaining and maintaining loyalty customers are in cost efficiency, it is better to maintain customer loyalty than to look for new customers(Kotler, P. and Keller, 2016). . Marketing campaigns are primarily aimed at increasing business profits and developing and maintaining good relationships with customers.(Kotler, P. and Keller, 2016).Over the past few decades, Customer Relationship Management (CRM) has become an important tool in increasing company profitability by being able to recognize customer needs and satisfy their needs, so that they remain loyal to the company's products or services.(Kumar & Pattnaik, 2022) (Abdulfattah, 2012)Of course, there are other variables that influence customer loyalty, such as E-Service Quality, Brand Trust, and Customer Satisfaction. In this research, there are several variables that need to be studied that influence customer loyalty.(Kumar & Pattnaik, 2022).

Electronic service quality (ESQ) is one of the most important pillars of success in e-commerce, so it is necessary to carry out continuous research to explore its impact in a competitive market. Another important consideration is how technology-ready consumers are in this new online shopping environment.(Goutam et al., 2022). Brand Trust can be defined as consumer confidence that they can trust the seller to deliver the product in accordance with the promised service from provider. Relationship value, on the other hand, can be understood as the consumer's perception of benefits. and has value compared to

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the costs incurred in maintaining exchange relationships (buying and selling) in the long term.(SH Lee et al., 2016). Customer satisfaction is defined as an effective cognitive assessment of customers based on their personal experiences throughout the stages of service use in purchasing and sales relationships. (Phavaphan Sivaraks, Donyaprueth Krairit, 2011)

But now that E-CRM is operating in many industries, other service providers understand the benefits of E-CRM and how it can help them acquire new customers, retain existing customers and increase sales.The number of sales is the value of customer service.(Elkhansa, M. and Hamid, 2020).of course it's connected to information and communication technology (ICT) applications via the Internet as in Figure 3, while customer satisfaction is a difficult task in today's competitive e-commerce world. This e-business seeks to practice customer relationship management and improve business relationships towards customer satisfaction.(Kumar & Pattnaik, 2022).Among these businesses there are fixed broadband service providers which will be discussed.

Figure 3. E-CRM used by one brand of the fixed broadband in Indonesia

The following research questions are based on the theoretical and practical phenomena mentioned previously:
Does E-CRM have a positive effect on E-Service Quality,Brand Trust,and Customer Satisfaction and Does E-CRM have positive effect on Customer Satisfaction through E-Service Quality and Brand Trust as mediation.and finally Does Customer Satisfaction have a positive effect on Brand Loyalty

THEORETICAL REVIEW
*E-CRM***(Electronic Customer Relationship Management)**

E-CRM (Electronic Customer Relationship Management) is a change in company strategy that moves from a product-focused strategy to a customer-focused strategy through information technology (IT)(Ferrer-Estévez & Chalmeta, 2023).E-CRM is a combined business process to eliminate customer needs problems, carry out all system elements and manage all customer expectations using information technology (IT) and CRM-based applications to support the company's strategy.(Dehghanpouri et al., 2020). *E-CRM* more than just technology. However, appropriate CRM implementation requires an integrated and balanced approach between people, processes and technology.(Migdadi, 2021)E-CRM allows companies to (1) have a single and integrated view of customers thanks to analytical tools; (2) one-way customer relationship management, regardless of communication channel; and (3) increase the effectiveness and efficiency of processes related to customer relations (Li, FYand Xu, 2022).Therefore, CRM functions offer many benefits to businesses and customers, including increased customer satisfaction, improved service, customer segmentation and personalized service.

E-Service Quality

Since personalization is a feature of e-services on a web or application that does not meet the customer directly, only high-quality e-services will help attract and retain customers. Customers' willingness to continue shopping online and engage in long-term e-services is highly dependent on the quality of e-services. Therefore, it is necessary to evaluate the quality of electronic services provided to customers.(Inan et al., 2023)

Electronic service quality (ESQ) is one of the most important pillars of success in e-commerce, so it is necessary to carry out continuous research to explore its impact in a competitive market. Another important consideration is how technology-ready consumers are in this new online shopping environment.(Goutam et al., 2022).The quality of e-services is critical to differentiate e-commerce services and gain competitive advantage. Electronic service quality risk is the risk that the quality of a company's electronic services will decrease or improve compared to its competitors.(Michel Benoch, 2011).There is evidence that periodically published third-party electronic service quality standards ratings can have an impact on a company's market

value. Therefore, companies continue to invest in the determinants of the quality of electronic services related to IT (Information Technology). Overall, improving the quality of e-services is necessary to gain competitive advantage, attract potential customers, and build better relationships with customers.

Brand Trust

Brand reputation is defined as "consumers aggregate perceptions of salient brand characteristics" which is associated with consumers' high product quality evaluations. This can help consumers identify a seller's goods or services and allow the seller to stand out from its competitors (Sun et al., 2024).

The hallmark of any successful relationship in industry is the trust and confidence between both the consumer and the brand, Brand trust is defined as "a consumer's willingness to trust the ability of a brand to carry out its functions. Trust is therefore one of the most desirable characteristics of a consumer-brand relationship (Han et al., 2023).

Customer Satisfaction

Customer satisfaction is defined as a customer's effective cognitive assessment based on their personal experiences throughout the stages of service use in the buying and selling relationship.(Phavaphan Sivaraks, Donyaprueth Krairit, 2011). Customer satisfaction is now based on a balance between customer expectations and the customer's experience of a product or service. Obtaining customer satisfaction improves the quality of the relationship between the customer and the service provider. Customer satisfaction implies that the customer is happy with the quality of service offered by the company.(Chaluvadi et al., 2018). This definition of e-gratification is arguably based on the affect-based model, which emphasizes the emotional aspects of Web site use. For example, similar to the use of the term emotion using the term affective response, and referring to experience, a term that can be said to be an influence that is inherited and based on feelings, emotions, and so on. Customers feel more comfortable because they can make transactions in their hands. Customer satisfaction is generally used as an indicator to measure the achievement of information systems and the implementation of E-CRM(Kumar & Pattnaik, 2022).

Brand Loyalty

Brand loyalty as consumer preference for a particular brand and repurchase of that brand, regardless of circumstances and marketing efforts to encourage behavioral change, brand loyalty includes loyal behavior and attitudes(Bae & Kim, 2023). Brand loyalty can also be broadly defined as "a deep commitment to repurchase or subscribe to a particular product/service regularly in the future.(Jamshidi, D. and Rousta, 2021). Various factors influence brand loyalty, including brand trust, quality, image, and fairness. Identifying factors other than satisfaction that are effective in building brand loyalty can help companies better understand how to build loyalty. These were identified as determinants of brand loyalty and aim to determine the extent to which its influence on brand loyalty and repurchase intention.(Erciş et al., 2012).

Loyal Attitude includes consumers' psychological attachment to a brand. Improving customer relationships can increase customer satisfaction and loyalty, including competitive advantages over competitors.(Sayani, 2015).Meanwhile E-CRM is seen as a combination of business processes that enable the right combination of business functions to maintain meaningful, profitable and long-term relationships with customers.(Al Karim et al., 2023).From this research we can measure the influence of E-CRM on customer satisfaction which influences brand loyalty in fixed broadband services as in Figure 4 whose conceptual framework comes from E-CRM research(Kumar & Pattnaik, 2022),where there are additional variables E-Service Quality and Brand Trust as mediation as well as the dependent variable Brand Loyalty.
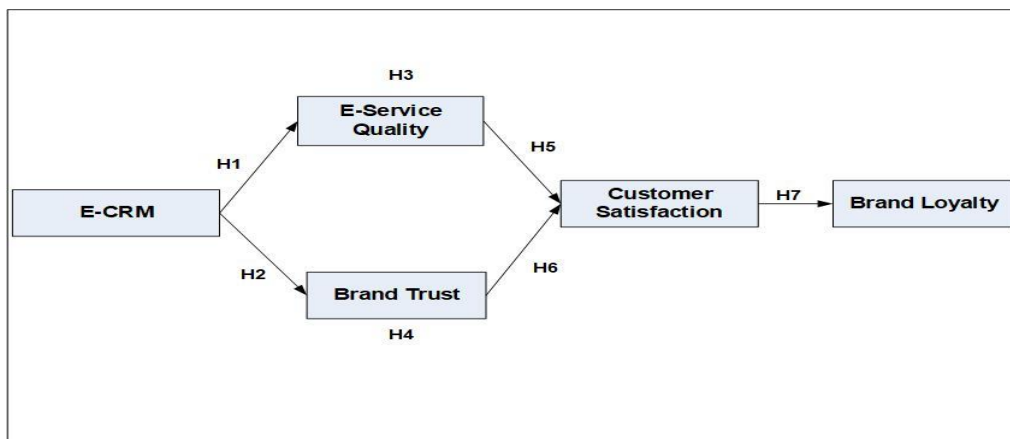

Figure 4. Conceptual Framework

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RESEARCH METHODS

Data collection uses a questionnaire created in the form of Google Forms. Distribution of the questionnaire was carried out online via social media Instagram, Whatsapp. In data collection, the minimum target number of respondents was 235 respondents. Respondents who filled out the questionnaire were respondents who used household fixed broadband application or website (E-CRM) services such as (Indihome, I-Connet -PLN, IndosatHi Fi, XLHOME, BiznetHome, MyRepublic,First Media/FastNet, MNC Vision, Oxygen, CBN)

For filters of respondents who use the web or application/E-CRM on fixed broadband, there are 261 respondents or 98.5%, while those who don't use it are 4 respondents or 1.5%. The respondents from the total of 261, Meanwhile, for web or application users of fixed broadband services at home.Meanwhile,For web and application users, fixed broadband services are dominated by Indihome customers with 79 users (30.26%), Iconnet PLN with 66 users (25.28%), Biznet Home with 52 (19.92%).

This research sample is based on certain aspects and the resulting sample was not chosen randomly but based on predetermined criteria, so the technique used was purposive sampling technique. (Sugiyono, 2016). It recommends using a sample size of at least 5 - 10 times the number of question items included in the questionnaire. (Hair et al., 2019).Therefore, in this study a minimum of 235 samples were required.

Validity test
Table 5. E-CRM Validity Test

Indicator	Outer loading	Information
ECRM 1	0.748	Valid
ECRM 2	0.718	
ECRM 3	0.743	
ECRM 4	0.754	
ECRM 5	0.722	
ECRM 6	0.762	
ECRM 7	0.717	
ECRM 8	0.761	
ECRM 9	0.719	
ECRM 10	0.729	
ECRM 11	0.737	
ECRM 12	0.719	
ECRM 13	0.735	
ECRM 14	0.738	
ECRM 15	0.750	
ECRM 16	0.744	
ECRM 17	0.738	
ECRM 18	0.730	
ECRM 19	0.717	
ECRM20	0.741	

Source: Processing results usingSMART PLS

In table 5, the E-CRM question item can be stated valid because the factor loading is above 0.35, so this question item is valid to use.

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Table 6. Validity Test of E-Service Quality

Indicator	*Outer loading*	Information
ESQ 1	0.772	
ESQ 2	0.740	
ESQ 3	0.732	
ESQ 4	0.744	valid
ESQ 5	0.717	
ESQ 6	0.792	
ESQ 7	0.716	
ESQ 8	0.782	

In table 6, the E-Service Quality question item can be stated valid because the factor loading is above 0.35, so this question item is valid to use.

Table 7. Brand Trust Validity Test

Indicator	*Outer loading*	Information
BT 1	0.888	valid
BT2	0.737	
BT3	0.871	

In table 7, the Brand Trust question item can be stated valid because the loading factor is above 0.35, so this question item is valid to use.

Table 8 Customer Satisfaction Validity Test

Indicator	*Outer loading*	Information
CS1	0.744	
CS2	0.734	
CS3	0.727	valid
CS4	0.741	
CS5	0.733	
CS6	0.713	
CS7	0.742	
CS8	0.728	
CS9	0.782	
CS10	0.740	
CS11	0.725	
CS12	0.751	

In table 8, the Customer Satsifaction question item can be stated to be valid because the factor loading is above 0.35, so this question item is valid to use.

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Table 9. Brand Loyalty Validity Test

Indicator	Outer loading	Information
BL 1	0.833	
BL 2	0.748	valid
BL 3	0.787	
BL 4	0.793	

In table 9, the Brand Loyalty question item can be stated to be valid because the factor loading is above 0.35, so this question item is valid to use.

The variables are like E-CRM (X),E-Service Quality,Brand Trust, Customer Satisfaction, and Brand Loyalty (Y) can be stated to be valid.because all variables that consists of 47 statements are above 0,35.This can be declared that all instruments are valid.

Reliability Test

A questionnaire is suitable for using, if the respondent's responses related to the questions are considered stable or constant over time. Reliability tests are carried out on the variables used to determine the Cronbach Alpha value as a reliability coefficient.

Table 10. Reliability Test

Variable	Number of Statements	Cronbach Alpha	Information
E-CRM	20	0.955	
E-Service Quality	8	0.924	
Brand Trust	3	0.889	Reliable
Customer Satisfaction	12	0.800	
Brand Loyalty	4	0.778	

Source: Smart Data Processing Results Pls

Based on data from table 10, it is found that E-CRM, E-Service Quality, Brand Trust, Customer Satisfaction, Brand Loyalty are declared reliable and consistent because they have*Cronbach Alpha*≥ 0.6

Structural Equation Model (SEM) Analysis

Refers to (Malhotra, 2010) Structural equation modeling (SEM) is the process of estimating dependency relationships between a set of concepts or constructs represented by a number of measurable variables in an integrated model. In SEM, the test relationships are represented by a series of structural variables.
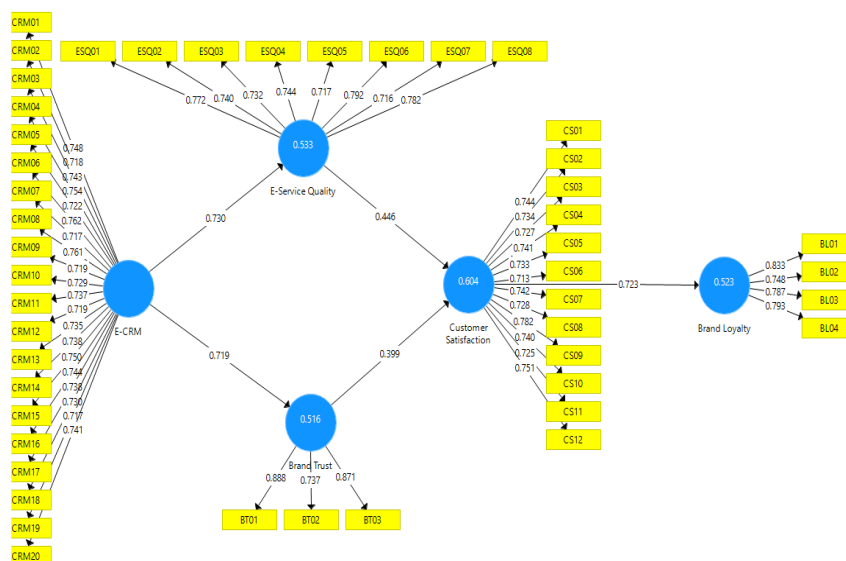
Source:Smart PLS

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The model equation is shown in Figure 6 above

Effect Size Test Results (F-Square)

Next, the researcher carried out an F-square test to find out how big the influence of endogenous variables is on exogenous variables. The F-square evaluation criteria are: $0.02 \leq f \leq 0.15$ = small influence, $0.15 \leq f \leq 0.35$ = medium influence, $f \geq 0.35$ = large influence.

Table 11. F-Square Test Results

	Brand Loyalty	Brand Trust	Customer Satisfaction	E-CRM	E-Service Quality
Brand Loyalty					
Brand Trust			0.210		
Customer Satisfaction	1,098				
E-CRM		1,068			1,143
E-Service Quality			0.263		

Source: Smart PLS

Discussion of Hypothesis Test Results

Table 13 Hypothesis Test (Path Coefficient)

Hypothesis	Information	Original Samples	P-Values	Conclusion
H1	*E-CRM* → E-Service Quality	*0.730*	*0,000*	Supported
H2	*E-CRM* →Brand Trust	*0.719*	*0,000*	Supported
H3	*E-CRM* → E-Service quality → Customer Satisfaction	*0.326*	*0,000*	Supported
H4	*E-CRM* →Brand Trust→ Customer Satisfaction	*0.286*	*0,000*	Supported
H5	*E-Service Quality* → Customer Satisfaction	*0.446*	*0,000*	Supported
H6	*Brand Trust* → Customer Satisfaction	*0.399*	*0,000*	Supported
H7	Customer Satisfaction →Brand Loyalty.	*0.723*	*0,000*	Supported

Source:SMART PLS

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H1: Analysis of the Positive Effect E-CRM towards E-Service Quality

If you look at table 13 which describes the results of hypothesis testing based on data processing using the SEM method, the p value of the E-CRM hypothesis towards E-Service Quality shows a value of <0.05 with a positive path coefficient value of 0.730. the influence of E-CRM on E-Service Quality in fixed broadband services. These results are in line with research(Sivaraks et al., 2011).Customer-based service attributes are defined in this research as CRM with the support of Information Technology applications, which need to be considered in E-CRM service activities; in other words, as a result of E-CRM in the service industry from the customer's perspective, a list of customer-based service activity constructs and related E-CRM results was compiled. Such as research (Goutam et al., 2022) defines service quality as an assessment, which identifies the prevalence of services and sheds light on outcomes; what consumers get from the service and how the service is provided.

H2: Analysis of the Positive Effect E-CRM towards Brand Trust

The p value of the E-CRM hypothesis towards Brand Trust shows a value of <0.05 with a positive path coefficient value of 0.719. So it can be concluded that the data processed supports the proposed hypothesis and shows that there is a positive influence of E-CRM on Brand Trust in fixed broadband services. This is in accordance with research that consumers usually collect and analyze product information from the media and friends to form their own opinions and perceptions. before making a decision(Klaus, P. and Maklan, 2013). Converting quality CRM into an online system also known as E-CRM as a whole is very important. E-CRM is digital, managed through the website, to provide the best shopping experience; it is important in building long-term relationships with consumers by fulfilling customer satisfaction and customer retention(Farmania et al., 2021).Thus, the quality of E-CRM via the web or application has a positive influence on customer trust in*brands*used

H3: Analysis of Positive Effect *E-CRM* towards Customer Satisfaction through E-Service Quality

p values in the E-CRM hypothesis towards Customer Satisfaction through E-Service Quality show a value of <0.05 with a positive path coefficient value of 0.326. So it can be concluded that the processed data supports the proposed hypothesis and shows the influence of E-CRM on Customer Satisfaction through E-Service Quality on fixed broadband services. There is fulfillment that can be met, efficiency and a good system by customers regarding products through the website or application. In this case, customer satisfaction is considered a very important performance measure, and it is hoped that customer satisfaction will soon replace profits as a determinant of success.(Wahab, S., Nor, NAM, & Khaled, 2010)

H4: Analysis of Positive Effect *E-CRM* towards Customer Satisfaction through Brand Trust

p values in the E-CRM hypothesis towards Customer Satisfaction through Brand Trust show a value of <0.05 with a positive path coefficient value of 0.286. This can be concluded that the processed data supports the proposed hypothesis and shows the influence of E-CRM on Customers. Satisfaction through Brand Trust on fixed broadband services.Therefore, new brands must be actively involved in efforts to attract customer attention, which indicates membership in brand groups/associations, to gain consumer trust, such as IndiHome, Iconnet, IndosatHiFi which are associated with other brands. Therefore, uncertainty and risk are likely to be reduced when a brand associates with a brand group, thereby fostering attachment within the group. (Han et al., 2023).

In this research E-CRM functions in web and applications provide positive trust to consumers thereby increasing customer satisfaction which ultimately results in the intention to buy or use products/services, in this case fixed broadband products. Website developer: The first and fundamental aspect for a website developer is to understand the psychology of design to improve user experience

H5: Analysis of Positive Effect *E-Service Quality* towards Customer Satisfaction

p values in the E-Service Quality hypothesis towards Customer Satisfaction show a value of <0.05 with a positive path coefficient value of 0.446. So it can be concluded that the processed data supports the proposed hypothesis and shows that there is an influence of E-Service Quality on Customer Satisfaction in services. fixed broadband.On research(Inan et al., 2023)which describes e-service quality as "the extent to which e-services are able to meet relevant customer needs effectively and efficiently. In this research, it was found that the quality of electronic services on the web or application providers IndiHome, Iconnet, Biznet (most used) in fixed broadband services was able to meet customer needs effectively.where technical quality refers to how well the core service meets customer expectations (outcome quality), functional quality is defined as how production works

H6: Analysis of Positive Effect *Brand Trust* towards Customer Satisfaction

p value for the Brand Trust hypothesis towards Customer Satisfaction shows a value of <0.05 with a positive path coefficient value of 0.339. So it can be concluded that the processed data supports the proposed hypothesis and shows that there is an influence of Brand Trust on Customer Satisfaction on fixed broadband services. From The results of this research show that

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brand trust is very important in determining consumer-brand relationships. If consumers have more trust in a brand, the perceived risk associated with purchasing that brand will decrease(Bae & Kim, 2023).Consumers trust brands that have provided pleasant experiences in the past. In this way, consumers can develop a sustainable relationship with the brand. Brand trust reflects the credibility of branded products and motivates consumers to make regular purchases(Garg, R., Mukherjee, J., Biswas, S. and Kataria, 2016).

Online customer satisfaction is measured not only through products and services, but also through interactions between customers and systems(Bataineh, 2015),A number of studies have been conducted in the past which revealed that E-CRM has a significant positive relationship with customer satisfaction. believes that the proper implementation of E-CRM influences customer satisfaction in the banking industry. revealed that customers are satisfied with their bank because of the convenience and trust features of E-CRM and the quality of service.(Kumar & Pattnaik, 2022).From the test results above, it can be concluded that there is brand trust in the past which has provided customer satisfaction, in this case household fixed broadband customers, so that they can build positive brand and consumer relationships.

H7: Analysis of Positive Effect Customer Satisfaction towards Brand Loyalty.

The p value for the Customer Satisfaction hypothesis towards Brand Loyalty shows a value of <0.05 with a positive path coefficient value of 0.723. So it can be concluded that the processed data supports the proposed hypothesis and shows that there is an influence of Customer Satisfaction on Brand Loyalty in fixed broadband services. In research (Djayapranata, 2020) consumer satisfaction is not always linear with consumer loyalty. This is in line with research (Bennett & Rundle-Thiele, 2004) that consumer satisfaction does not always lead to loyalty but depends on the context. In the context where this research was conducted, especially fast food and brand loyalty generally connotes habits in expressed purchasing behavior from time to time by the factors determining purchasing decisions by comparing several alternative brands as part of a psychological process (Tuti & Sulistia, 2022). Testing on household fixed broadband services proves that customer satisfaction has a positive influence on brand loyalty.

CONCLUSION

From this research it can be concluded that the websites and applications used by fixed broadband providers can foster trust in the brand in meeting their needs, with good electronic services that create a sense of satisfaction or pleasure, creating a good relationship between customers and the company via the web or This application (E-CRM) can have an effect on increasing profits for the company and the sustainability of the company.

Managerial Implications

1. Company managers can optimize E-CRM through improvements personalization by increasing account activation to prevent unknown people from entering and taking all information using social media such as the use of CAPTCHA (*Completely Automated Public Turing Test to Tell Computers and Humans Apart)* in the form of a choice of images or verifying the user is a human, not a robot

2.Company managers can improve e-service quality by socializing/educating new customers who come directly to the service office regarding the available web or application (E-CRM), so that customers can understand how to use it properly and correctly to carry out transactions, whether new installations or transactions. other things, apart from that, there is a need for socialization through content in the media related to the use of the web and applications.

3. Company managers can increase brand trust by understanding customer pain points, building robust systems on web and fixed broadband applications, creating a culture of reliability, having user-focused metrics

4. Company managers can increase customer satisfaction and improve systems on the web and applications related to the accuracy of data and information

5. Company managers can increase the brand loyalty needed by customers by giving loyalty points or giving rewards for features in it or making a subscription deposit for a certain period of time when installing a new fixed broadband on the application or web and making an e-sign when installing a new fixed broadband so that customers do not move to other competitors.

RESEARCH LIMITATIONS

This research is not free from several limitations, including:

1. This research only discusses several variables E-CRM, E-Service Quality, Brand Trust, Customer Satisfation, Brand Loyalty

2. This research was only carried out on home fixed broadband service users who used applications or the web.

3. The scope of this research is still in the Jabodetabek area

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SUGGESTIONS FOR FURTHER RESEARCH

In connection with the results of this research, suggestions for further research include the following:

1. In future research, it would be better to add the e-wom variable to analyze the influence of the Brand Loyalty variable on word of mouth, such as research conducted by (Yoo et al., 2013) and the commitment variable by (Giovanis & Athanasopoulou, 2018)

2. In future research, it would be better to add more specific regional respondents, and also users of fixed broadband services for offices, so that we can see that fixed broadband services can build trust in the brand.

3.In future research, it is neccesary to test well being of employees who handle the problems of cunsumers especially front staff employee.it would be stress or burnout because application or website which is been released to satisfy consumers.traffic of rate complaints or transactions would be increasing rapidly.so does employee performance impact to customer satisfaction

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