Research Article

Measuring Customer Satisfaction in an Online Learning Environment A Seven-P Modeling Approach

Badrudin[1], Andhika Sakti[2], Eko Susanto[3]*, Fatah Syukur[4], Muhammad Thoyib[5], Jumira Warlizasusi[6]

[1]Program pascasarjana UIN Sunan Gunung Djati Bandung, Indonesia. Email: dr.badrudin@uinsgd.ac.id
[2]Program pascasarjana UIN Sunan Gunung Djati Bandung, Indonesia. Email: saktiandhika.as@gmail.com
[3]*Universitas Muhammadiyah Metro, Indonesia Post-Doctoral Badan Riset dan Inovasi Nasional (BRIN), Indonesia
Email: eko@konselor.org
[4]Universitas Islam Negeri Walisongo Semarang, Indonesia. Email: fsyukur@walisongo.ac.id
[5]Institute Agama Islam Negeri Ponorogo, Indonesia. Email: thoyib@iainponorogo.ac.id
[6]Institute Agama Islam Negeri Curup, Indonesia. Email: jumira.ifnaldi@gmail.com

ARTICLE INFO	ABSTRACT
	In Indonesia's competitive technology industry, overcoming this challenge requires a strong marketing strategy, especially for online tutoring services. Understanding the influence of the marketing mix model on customer satisfaction perception is crucial for services like Ruangguru. This study used a quantitative approach using causal research methods. Primary data was collected from parents or students who actively use the Ruangguru application in West Java, involving up to 100 respondents. In addition, secondary data is obtained from the source of the document. Data collection techniques are centered on questionnaires. This study used several techniques to analyze the data: 1) validity and reliability tests, 2) testing of classical assumptions, and 3) multiple linear regression analysis. The findings of this study reveal this. Among all 7P marketing mix model elements, only product and process components showed a significant partial effect on service customer satisfaction. The results of the analysis are as follows: Product (X.1) has a value of t = 3.090 with a significant level of 0.003<0.0.5, and Process (X.6) has a value of t = 2.520 with a significant level of 0.013<0.05. Furthermore, the analysis showed that the F value was 6.769 with a significance level of 0.000<0.05. This shows that the marketing mix model (7P) has a collective influence on the dependent variable (Y), accounting for 34% of the variation, thus underlining the significant impact of the marketing mix on customer satisfaction in the context of Ruangguru's online tutoring services.

Keywords: Marketing Mix Model, Customer Satisfaction, Online Learning |

INTRODUCTION

Integrating information and communication technology in education has revolutionized the field, shifting from traditional face-to-face learning to more flexible and open forms of education, including online tutoring (Rahmawati et al., 2021). Budiman (2017:23) states that learning in the future will be more determined by information networks that enable interaction and collaboration, not just oriented towards school buildings. The trend of change and innovation in education will continue and develop into the present century. In this century, learning is more controlled by students and requires the integration of ICT. The role of information and communication technology in teaching and learning activities is inevitable.

In Indonesia, the emergence of educational service applications such as Ruangguru has significantly impacted the education sector, offering various technology-based learning services, including virtual classes, online exam platforms, subscription learning videos, and private tutoring marketplaces (Rahmawati et al., 2021). The application has gained significant popularity, with more than 15 million users, and has been endorsed by numerous provincial and local governments in Indonesia (Rahmawati et al., 2021). The effectiveness of Ruangguru's services is evident from the increase in user value by 20 points and the reported increase in grades by 92% of respondents within three months of using the application (Rahmawati et al., 2021).

The impact of online tutoring on student achievement has been investigated, revealing that online tutoring programs can positively influence low-achieving students' mathematics achievement (Chappell et al., 2015). The study employed quasi-experimental designs to measure the impact of tutoring on mathematics assessment scores, demonstrating the potential of online tutoring to improve academic outcomes (Chappell et al., 2015).

During the COVID-19 pandemic, the transition to online synchronous learning has been evaluated, focusing on the effectiveness and feasibility of online synchronous clinical communication training (Perron et al., 2020). The study aimed to assess the usefulness of online synchronous clinical communication training from students' and tutors' perspectives, shedding light on the adaptability of online platforms for educational purposes, especially during challenging circumstances such as the pandemic (Perron et al., 2020).

The use of educational mobile applications in teaching practices has also been examined, emphasizing the importance of principles and paradigms of human-computer interaction in evaluating the effectiveness of such applications (Aryani et al., 2021). The study used various methods, including questionnaires, interviews, and document analysis, to investigate teacher practices in using educational mobile applications, aligned with the theory of multimedia learning and the theory of technological pedagogical content knowledge (TPACK) (Aryani et al., 2021).

Furthermore, the influence of learning management information systems and service quality on customer satisfaction has been explored in the Ruangguru application, employing a descriptive quantitative approach to understand the factors that contribute to customer satisfaction (Badrudin et al., 2022). This study provides insight into the importance of service quality and learning management systems in shaping customer satisfaction, which is crucial for successful educational applications such as Ruangguru (Badrudin et al., 2022). The studies referenced provide valuable information on the effectiveness of online tutoring, the impact of intelligent education systems, and the importance of human-computer interaction principles in educational applications.

According to Tangkilisan (2014:269), at the same time, society also encounters various internal problems in accessing quality education. The Program for International Student Assessment (PISA)said that Indonesia was in 62nd place out of 72 countries assessed in science, mathematics, and reading. This research strengthens the assumption that Indonesia must start improving its education system.

Another phenomenon that is also an obstacle for tech startups in Indonesia, according to the Head of the Center for Information and Communication Technology, Education and Culture, Ministry of Education and Culture, Gogot Suharwoto in Ida Farida (2016:54), "There are still many teachers who are not ready to adopt technology. "We have conducted a survey, and the results are that only 40% of non-ICT teachers can use technology." The Ruangguru application, which provides a learning management system (LMS) in Indonesia, said that the low knowledge of IT by teachers is also one of their challenges in finding human resources and creating products.

On the basis of the above phenomenon, to reach more users, the teacher's room must be able to present learning content that can be accessed easily. Minimum because ease of access is the main prerequisite for meeting user needs. Ease of access is also the main prerequisite for meeting user needs; Ruangguru must know what factors need to be considered when developing startups that are easily accessible in Indonesia. To provide quality educational services and maintain consumer satisfaction and credibility, as one of the trendiest startups, Ruangguru needs to use marketing strategies to attract consumers and obtain consumer satisfaction. One marketing strategy that can be used is the concept of marketing mix. Using a marketing mix strategy, the company can control the marketing process to produce the desired response to the target market.

LITERATURE REVIEW

1. Education Marketing in Education Management

Marketing in educational services is a complex managerial and social process that involves creating exchanges, offers, and value products with certain parties in the educational sector to fulfill the needs and desires of individuals (Sholikah et al., 2021). This process is influenced by various factors, such as economic, social, cultural, political, and managerial factors (Sholikah et al., 2021). Kacung Wahyudi (2017) emphasizes the importance of offering quality intellectual services and character formation in educational marketing, highlighting education's comprehensive responsibility (Sholikah et al., 2021).

In marketing educational services, it is crucial to consider the various elements of the marketing mix, such as product, price, place, promotion, people, process, and physical evidence (Ibadiyah et al., 2022). Applying the marketing mix as a service marketing strategy in educational institutions, such as Langlangbuana University, significantly shapes the institution's marketing activities and overall concept map (Pramiarsih et al., 2022). Furthermore, the implementation of marketing mix instruments has been shown to impact student satisfaction in higher education institutions, emphasizing the importance of each marketing mix tool and its combination of student satisfaction (Brkanli et al., 2020).

Imam Machali (2018:124) Marketing is a managerial and social process that combines important activities that enable a person or group to obtain wants and needs through exchange with other parties and to develop exchange relationships. The marketing process is also influenced by several factors, such as economic, social,

cultural, political, and managerial factors. The existence of this influence means that individuals will get their needs and desires by offering, creating, and exchanging something of value with each other.

In educational services, marketing can also be interpreted as a managerial and social process to obtain what is needed and desired by creating exchanges, offers, and value products with certain parties in the educational sector. According to Kacung Wahyudi (2017:68), marketing in education should offer quality intellectual services and complex character formation, because education is comprehensive, carried out responsibly and oriented toward the future.

The use of modern online marketing tools is becoming increasingly important in developing marketing activities for educational institutions, highlighting the need to adapt to the evolving digital landscape (Solosichenko et al., 2021). Additionally, implementing adaptive marketing concepts in the educational services market involves building strategies based on preventive response methods and utilizing Internet technologies for positioning in the market (Peskova et al., 2021). This reflects the dynamic nature of marketing in educational services and the need for continuous adaptation to market conditions. Moreover, the marketing of educational institutions extends beyond traditional approaches, as evidenced by the centrality of customers' active involvement in service development in informal education institutions in Israel (Oplatka, 2004).

This active involvement of customers aligns with the evolving nature of marketing, emphasizing the importance of engaging customers in the service development process. In higher education, the marketing of educational institutions is essential to adapt to changing business landscapes and the modernization of education. This includes developing models for marketing technical university education in Ghana and reorganizing regional universities to modernize education in Russia's regions (Keelson, 2016; Cheglakova et al., 2020). These initiatives underscore the strategic importance of marketing in higher education and its role in responding to industry and market changes.

Furthermore, the perceptions and expectations of marketing students and educators play a crucial role in shaping marketing education. Beliefs and expectations of the principles of marketing students and the perspectives of marketing educators influence the direction and development of marketing education programs (Ferrell & Gonzalez, 2004; Schibrowsky et al., 2002). Additionally, incorporating experiential learning activities and projects into marketing classes actively involves students in real-world applications, contributing to a more comprehensive understanding of marketing concepts (Ackerman et al., 2003). Marketing in educational services encompasses a wide array of strategies, tools, and approaches essential to meeting the needs and desires of individuals within the educational sector. The dynamic nature of marketing in educational services requires continuous adaptation to market conditions, the integration of modern online marketing tools, and the active participation of customers in service development.

2. Marketing Strategy for Educational Services

The marketing strategy for educational services is a crucial aspect of ensuring the success and sustainability of educational institutions. Nyoman Sudiarta (2011) emphasizes the importance of developing competitive advantages through marketing strategies to achieve organizational goals. In educational services, the marketing mix plays an important role. Kotler, Philip (2014), highlights the 7Ps of the marketing mix for services, which include product, price, place, promotion, people, process, and physical evidence. These components are essential in implementing a marketing strategy for educational services to ensure high-quality processes that are well received by the community (Pramiarsih et al., 2022).

Internationalization of educational services through the development of remote education systems has also been identified as a potential strategy (Treshchevsky et al., 2019). This approach presents opportunities to reach a global audience and overcome barriers to traditional education delivery. Additionally, applying the 7P concept in marketing strategies for educational services, particularly in Islamic school education, has been studied to obtain effective marketing strategies (Wahyuni et al., 2021).

One of the marketing strategies of JSA is the marketing mix; according to Kotler Philip (2014: 75), the marketing mix consists of goods that contain a set of marketing tools known as 4P, namely product, price, place (place or channel or distribution) and promotion, while in service marketing there is the addition of several marketing tools such as people, process (process), and physical evidence (physical facilities), and process (process), so it is known as the term 7P.

Furthermore, the impact of the marketing mix on the reputation of educational service providers has been investigated, indicating that the marketing mix significantly affects the reputation of educational service providers (Warpindyastuti, 2019). This underscores the importance of a well-planned marketing mix in shaping the perception and reputation of educational institutions. Moreover, service marketing management has improved customer satisfaction in educational institutions (Amiruddin et al., 2021).

In the context of private higher education, the affordability of education costs has been identified as a critical factor in the effectiveness of marketing strategies (Nuriadi, 2021). This highlights the importance of considering financial accessibility in marketing strategies for educational services. Additionally, the impact of the COVID-19 pandemic on marketing strategies for private higher education institutions has prompted a rethinking of marketing approaches to adapt to changing circumstances (Pradipta, 2022). The relationship between the marketing mix model and students' choice of private higher education institutions has also been

explored, indicating the influence of marketing strategies on students' decisions (Moorthy et al., 2019). This emphasizes the importance of effective marketing strategies to attract students to educational institutions. In addition, the traditional services marketing mix has been scrutinized in the context of higher education, suggesting that it may need to be adapted to suit the specific needs of the sector (Ivy, 2008).

3. Concept of customer satisfaction

Satisfaction, derived from the Latin word "satis," which means enough, and "face," which means to do or make, can be interpreted as an effort to fulfill something or make something more adequate. Zeithaml (2013) defines satisfaction as the consumer's fulfillment response and a judgment of the pleasurable level of consumption-related fulfillment (Palawatta, 2015). In addition, satisfaction can mathematically represent the difference between total customer value and total customer cost. Total customer value is the sum of all a person's sacrifices to obtain goods and services (Palawatta, 2015).

The meaning of satisfaction is multifaceted and varies in different contexts. For instance, in the context of job satisfaction, Wanous & Lawler (1972) highlight the differences in the kinds of facets included in satisfaction definitions and what they mean by a facet (Wanous & Lawler, 1972). Similarly, in the context of grandparent satisfaction, Thiele & Whelan (2008) emphasize the multidimensional distinction between types of grandparental meaning and how only some meanings predict satisfaction (Thiele & Whelan, 2008). These variations in the meaning of satisfaction are also evident in the organizational context, as (2013) notes that job satisfaction has been intensely recognized and studied in organizational behavior, indicating the complexity of its definition and measurement (Tüzün, 2013).

Furthermore, satisfaction is not only limited to individual contexts but also to organizational and consumer domains. For example, organizational communication (2013) emphasizes the importance of organizational levels of analysis of communication satisfaction and identification regarding job satisfaction (Tüzün, 2013). Furthermore, Quan and Quan (2019) discuss the effects of strategic consumer behavior and psychological satisfaction on retailer pricing and inventory decisions, highlighting the impact of satisfaction on business strategies (Quan Quan, 2019). Furthermore, in the healthcare sector, Hadeler et al. (2020) provide insight into patient satisfaction studies in teledermatology, emphasizing the importance of understanding patient preferences and satisfaction in healthcare delivery (Hadeler et al., 2020).

The concept of satisfaction also extends to various other domains, such as education, spirituality, and consumer behavior. For example, Jan (2015) explores the relationships between academic self-efficacy, computer self-efficacy, prior experience, and satisfaction with online learning, highlighting the relevance of satisfaction in educational settings (Jan, 2015). Similarly, in the context of spirituality, Baltaci and Soykan (2020) investigate the levels of optimism, happiness, meaning of life and life satisfaction, emphasizing the multidimensional nature of satisfaction in spiritual contexts (Baltaci Soykan, 2020). Additionally, Ryu & Han (2009) examine the influence of food, service, and physical environment quality on customer satisfaction and behavior intention in fast-casual restaurants, highlighting the role of satisfaction in consumer behavior and the hospitality industry (Ryu & Han, 2009).

Satisfaction is a complex and multifaceted concept that encompasses various dimensions in different contexts, including the individual, organizational, and consumer domains. Its definition and measurement vary depending on the specific context and play a crucial role in influencing behaviors, decisions, and overall well-being.

METHOD

Design

In this study, we adopt a quantitative approach based on the philosophy of positivism to understand how management can create new knowledge regarding the management of institutions or organizations. This approach allows researchers to study specific populations or samples using numbers and statistics. Data were collected using questionnaires as the primary tool. This study uses descriptive quantitative research methods to describe ongoing phenomena or those that occurred in the past without changing the independent variable. We use primary and secondary data as sources of information. This research focuses on users of Ruangguru applications in Bandung, with data obtained through interviews with application account managers.

Participant

The sampling technique in this study is based on probability sampling with a simple random sampling method carried out among users of the Ruangguru application. We use the Slovin formula to determine the sample size, which is adjusted based on population size. The results of the calculation showed that the sample size taken was 100 respondents, which were selected to facilitate data processing and obtain more accurate test results.

Data Collecting and Analysis

Data collection was carried out using questionnaires with practical sampling methods. For data analysis, we apply a multiple linear regression test method. SPSS 22 software is used for analysis, including measures

such as validity and reliability tests, classical assumption tests (normality, multicollinearity, and heteroskedasticity), and multiple linear regression tests. Validity and reliability tests ensure that the questionnaire is reliable as a research instrument. The classical assumption test aims to evaluate the feasibility of the regression model used. Multiple linear regression tests measure how significant the influence of the independent variable on the dependent variable is through the T-test (partial) and F-test (simultaneous), as well as the analysis of the coefficient of determination R2.

This method provides a comprehensive way to analyze and interpret data, focusing on using the Ruangguru application and the satisfaction of its users.

RESULTS AND DISCUSSION

General Description of Research Objects
The main object of this research is the Ruangguru online learning application. PT RUANG RAYA INDONESIA, also known as Ruangguru, is a limited liability company operating in non-formal education. Ruangguru was established according to the laws in force in Indonesia and has obtained a Nonformal Education Unit Establishment Permit and a Training Course Institution Operational Permit with Number 3/A.5a/ 31.74.01/-1,851,332/2018. Ruangguru is the largest technology company in Indonesia focusing on education-based services (edtech). Ruangguru has over 15 million users and manages more than 300,000 teachers who offer services in more than 100 subject areas.

Respondent characteristics
The respondents sampled in this study were parents or students who had direct contact with using the Ruangguru application in the West Java region, totaling 100 respondents. The following characteristics of the respondents based on the type of user of the Ruangguru application can be shown in the following table.

Table 1 Respondent Characteristics

No.	User As	Amount	Percentage
1	Parent	53	53%
2	Student	47	47%
	Amount	100	100

Source: Research Results, 2020 (processed data)

Table 1 shows that the type of users that dominate are parents compared to students, namely parents with 53 respondents (52%) and students with 47 respondents (47%).

Data Analysis Results
a. Data Instrument Test
1) Validity Test
Validity testing was carried out with the help of a computer using the SPSS for Windows Version 22 program. Decision making was based on the calculated (Corrected Item-Total Correlation) r=0.1654 the item is valid for df = 100−2 = 98;α= 0.05.

The results of the validity test for the 45-question items show that all are valid. This conclusion is drawn based on the r value calculated for each question higher than the r=0.1654. This shows that each item of the questionnaire can measure variables relevant to the study, such as product, price, place, promotion, people, process, physical evidence and user satisfaction. Therefore, the question items in the questionnaire are considered appropriate for use as research instruments.

2) Reliability test
The questionnaire is reliable or trustworthy if Cronbach's alpha is > 0.06.

Table 2 Reliability Test Results

Variable Name	Cronbach Alpha	Reliability
Products	0.878	Reliable
Price	0.891	Reliable
Place	0.885	Reliable
Promotions	0.866	Reliable
People	0.830	Reliable
Process	0.844	Reliable
Physical Evidence	0.834	Reliable
Satisfaction	0.707	Reliable

Source: Research Results, 2020 (processed data)

The results of the above reliability test show that all variables have a Cronbach Alpha coefficient > 0.6, so all items are reliable. In this way, all instrument tests consisting of validity and reliability meet the requirements for use as measurement tools in research.

b. Classic assumption test
1) Normality test
It is said to be normally distributed if the plotting data (dots) that depict the actual data follow a diagonal line. On the basis of the normality test, it is known that the points almost follow a straight line, so it can be concluded that the residual value follows a normal distribution.

2) Multicollinearity test
To check for multicollinearity symptoms, ensure that tolerance is <= 0.1 and VIF is < 10. If these conditions are met, it can be concluded that the data are accessible from multicollinearity.

Table 3 Multicollinearity Test Results

Variable	Tolerance	VIF	Status
Products	0.412	2,429	Multicollinearity does not occur
Price	0.404	2,473	Multicollinearity does not occur
Place	0.537	1,863	Multicollinearity does not occur
Promotions	0.550	1,818	Multicollinearity does not occur
People	0.535	1,869	Multicollinearity does not occur
Process	0.441	2,269	Multicollinearity does not occur
Physical Evidence	0.656	1,524	Multicollinearity does not occur

Source: Processed data, 2020

Based on the table above, the tolerance for all variables is 0.100, and VIP for all variables is <10; it can be concluded that the data are accessible from symptoms of multicollinearity.

3) Heteroscedasticity
According to Imam Ghazali, heteroscedasticity does not occur if there is no clear pattern (wavy, widening, and then narrowing) in the scatterplot image and the points spread above and below the number 0 on the Y axis. On the basis of the image above, it can be seen that there is no clear pattern (wavy, widening, and then narrowing) in the scatterplot image, and the points are spread above and below the number 0 on the Y axis. Thus, it can be concluded that there are no symptoms of heteroskedasticity.

c. Multiple Linear Regression Analysis

Table 4 Multiple Linear Regression Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	10,495	1,914		5,483	,000
Product (X.1)	,281	,091	,408	3,090	,003
Price (X.2)	-,040	,093	-,058	-,433	,666
Place (X.3)	,068	,075	,105	,904	,368
Promotion (X.4)	-,066	,085	-,089	-,777	,439
People (X.5)	-,137	,091	-,175	-1,511	,134
Process (X.6)	,258	,103	,322	2,520	,013
Physical. Ev (X.7)	,076	,109	,073	,701	,485

Source: Processed data, 2020.

The multiple linear regression equation above can be interpreted as follows.
1) The constant, quantified at 10.495, indicates a baseline for customer satisfaction. This figure represents the hypothetical value of customer satisfaction when all independent variables, namely product, price, place, promotion, people, process, and physical evidence, are held constant. It serves as a starting point in the model, suggesting that customer satisfaction would be at a level of 10.495 in the absence of variability in these factors.
2) Regarding the product variable, its positive regression coefficient implies a direct and proportional relationship with customer satisfaction. Any increase in the quality, features, or overall value of the product will likely result in a corresponding increase in customer satisfaction.
3) This positive association highlights the importance of the product in influencing customer perceptions and experiences.
4) However, the regression coefficients for price, place, promotion, and people exhibit a different dynamic. The lack of effect in these coefficients suggests that price-level variations, the physical or geographical placement of the product or service, promotional activities, and the human element involved in the delivery of the service do not significantly alter customer satisfaction. This could indicate that customers may resist changes in these areas or that other overriding factors are more crucial in determining satisfaction.

5) In contrast, the positive regression coefficient for the process variable is emphasized. This result suggests that improvements or enhancements in the process, including efficiency, convenience or overall customer experience during purchasing or service delivery, positively impact customer satisfaction. It emphasizes the importance of smooth, effective operational procedures to create satisfying customer experiences.

6) Finally, the regression coefficient for physical evidence does not demonstrate an effect on customer satisfaction. This implies that changes in tangible aspects of the physical environment associated with the product or service do not significantly influence customer satisfaction levels. It could be inferred that while physical evidence may play a role in overall perception, its impact on satisfaction is not as pronounced as other factors, such as product quality or process efficiency.

7) In summary, this detailed interpretation of the multiple linear regression model provides information on how various business offerings influence customer satisfaction, highlighting the critical role of product quality and process efficiency, while indicating a lesser impact of pricing strategies, promotional activities, and the physical environment.

a) Partial t-test

The basis for decision making The t test can be concluded that partially the independent variable has a significant effect on the dependent variable. Formula for finding the t ; t = (/2; nk-1) = (0.05/2; 100-7-1) = (0.025; 92)>∝

1. The Influence of Product on User Satisfaction with Ruangguru's on-line tutoring Services

In the analysis conducted, it was found that the coefficient of the variable "product" was positive, which indicates a positive relationship between improvements in products and customer satisfaction. Specifically, for the variable "Product" (X.1), the statistical value of the test obtained showed strong significance ($p < 0.05$) with a p value of 0.003. This finding is consistent with the hypothesis that states the significant influence of the "product" variable in the marketing mix on user satisfaction partially in the context of Ruangguru's online tutoring services. This study also shows that products have a significant influence on customer satisfaction on the Ruangguru application. This is most likely due to the quality of the product and the diversity of features offered by Ruangguru, which meet the expectations of most users. Therefore, the product aspect is considered an important component by users.

2. The influence of price on user satisfaction with Ruangguru's on-line tutoring services

The results of the analysis indicate that the coefficient of the variable "price" does not have a significant effect, indicating that the increase in price has no impact on increasing customer satisfaction. In particular, for the variable "Price" (X.2), the statistical value of the test shows the absence of sufficient significance ($p > 0.05$) with a p value of 0.666. Based on these results, the hypothesis that states the significant influence of the "price" variable in the marketing mix on user satisfaction of Ruangguru's online tutoring services is partially not supported.

The findings of this study show that price does not have a significant effect on customer satisfaction in the Ruangguru application. This may be because users generally feel that the price set by Ruangguru is relatively cheaper than conventional tutoring. Users also feel that the price offered is proportional to the value or benefits obtained. As a result, price is not considered a major factor on Ruangguru user satisfaction.

3. The Influence of Place on User Satisfaction with Ruangguru's on-line tutoring services

The analysis showed that the coefficient for the "place" variable did not have a significant effect, indicating that changes in the "place" aspect did not result in increased customer satisfaction. Specifically, the variable "Place" (X.3) indicates a test statistical value that does not reach the significance threshold ($p > 0.05$) with a p value of 0.368. Thus, the hypothesis that states the significant influence of the "place" variable in the marketing mix on user satisfaction of Ruangguru's online tutoring services is partially unproven.

The results of this study revealed that the place aspect did not have a significant influence on customer satisfaction in the Ruangguru application. This can be explained by the fact that users do not need to be in a specific location or visit a specific place to use this application. They can access the application from anywhere and anytime according to the location where they live. Therefore, the place factor is not considered to significantly affect the satisfaction of Ruangguru users.

4. The effect of promotion on user satisfaction with Ruangguru's on-line tutoring services

The analysis showed that the coefficient for the variable "promotion" did not exert a significant effect, indicating that the increase in promotion had no impact on increasing customer satisfaction. The variable "Promotion" (X.4) has a test statistical value that does not reach the significance threshold ($p > 0.05$) with a p value of 0.439. These results show that the effect of promotion on user satisfaction of Ruangguru's online tutoring services is not significant. This research shows that promotion has a small effect on customer satisfaction of the Ruangguru application. This could be because Ruangguru is already quite well known by users, so there is no need to do intensive promotions to attract potential consumers.

5. The influence of people on user satisfaction with Ruangguru's on-line tutoring services

In the analysis, the coefficient for the "people" variable showed no significant effect, which means that improvements in the "people" aspect did not increase customer satisfaction. The variable "People" (X.5) has a test statistical value that shows no significance (p > 0.05) with a p value of 0.134. This result indicates that the person aspect does not have a significant influence on the satisfaction of Ruangguru application users. The quality of HR services affects customer satisfaction, but these results show that Ruangguru users are not fully satisfied with their interactions with employees, administrators, and teachers.

6. The Influence of the Process on user satisfaction with Ruangguru's on-line tutoring services

The results of the analysis for the variable "process" showed a positive influence, which means that improvements in processes contribute to increased customer satisfaction. The variable "Process" (X.6) has a significant test statistical value (p < 0.05) with a p value of 0.013. This finding confirms that the process of using Ruangguru's services plays an important role in determining customer satisfaction. The process from getting tutoring services to using and downloading apps, as well as the account registration process, are considered important factors in user satisfaction.

7. The Influence of Physical Evidence on user satisfaction with Ruangguru's on-line tutoring services

In the analysis, the coefficients for the "physical evidence" variable showed no significant effect, which suggests that improvements in physical evidence did not increase customer satisfaction. The variable "Physical Ev" (X.7) has an insignificant test statistical value (p > 0.05) with a p value of 0.485. These findings indicate that physical evidence, such as environment, color, layout, additional facilities, and appearance of products or services, does not have a significant impact on user satisfaction of the Ruangguru application.

b) Simultaneous F Test

This test is used to test the significance of the regression coefficients to see if there is an influence between the independent variable (X) and the dependent variable. The basis for making the decision of the F test is if the table f calculates the f value, or if the Sig value is 0.05, the independent variable simultaneously influences the dependent variable (Y). The formula for finding the table f table =(k ; n −k) = (7 ; 100-7) = 3 ; 93.

Table 5 F Test Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	233,091	7	33,299	6,769	,000b
	Residual	452,549	92	4,919		
	Total	685,640	99			

Source: Processed data, 2020

Based on the results of Table 5, the calculated value of F is 6.769 with a significant value of 0.000 < 0.05. It shows that the variables of the marketing mix model (7P) simultaneously influence the customer satisfaction variable.

c) Coefficient of determination test (R2)

The coefficient of determination measures the proportion or percentage contribution of all independent variables (X) in the regression model to the dependent variable (Y).

Table 6 Coefficient of Determination Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,583a	,340	,290	2,218	2,113

Source: Processed data, 2020

In Table 6 it can be seen that the adjusted square value of R is 0.340 or 34%. It shows that the customer satisfaction variable that can be explained by the marketing mix model variables (7P) is 34%. Meanwhile, the remaining 66% is explained by other variables outside the model.

In the context of the Indonesian tech industry, specifically for the online tutoring services provided by Ruangguru, the application of the 7P marketing mix emerges as a pivotal tool for influencing user satisfaction perceptions. The comprehensive analysis, discussion of research outcomes, and hypothesis testing yield several key conclusions, summarized as follows:

The evaluation of the product's impact, as indicated by the regression coefficient analysis, demonstrates a positive influence on customer satisfaction. The statistical significance of the product variable (X.1) is evidenced by a calculated value of 3.090, exceeding the threshold value of 1.986, with a significance level of

0.003, which is less than the 0.05 benchmark. This result confirms a substantial effect of the product aspect on user satisfaction with Ruangguru's online tutoring services.

Regarding price, the regression coefficient analysis suggests that price variations do not significantly affect customer satisfaction. The price variable (X.2) recorded a calculated value of -0.433, which is lower than the critical value of 1.986, and the significance level stood at 0.666, exceeding the standard 0.05 limit. Consequently, the hypothesis that price significantly influences user satisfaction in the context of Ruangguru's online tutoring services is not supported.

The analysis of the place element shows no significant effect on customer satisfaction. The place variable (X.3) yielded a calculated value of 0.904, falling short of the critical value of 1.986, with a significance level of 0.368, which is above the 0.05 standard. Thus, the role of place in affecting user satisfaction with Ruangguru's services is deemed non-significant.

The promotional aspect, as analyzed through its regression coefficient, also does not exhibit a significant impact on customer satisfaction. The promotion variable (X.4) has a calculated value of -0.777, below the necessary threshold of 1.986, and a significance level of 0.439, which is higher than 0.05. Hence, the influence of promotion on user satisfaction with Ruangguru's services is rejected.

In terms of the 'people' component, the regression analysis indicates no significant effect on customer satisfaction. The people variable (X.5) displays a calculated value of -1.511, which does not meet the threshold value of 1.986, and the significance level is 0.134, above the 0.05 standard. This result suggests that the 'people' factor in the marketing mix does not significantly influence user satisfaction in Ruangguru's context.

The process element shows a positive impact on customer satisfaction, as indicated by the regression coefficient analysis. The process variable (X.6) has a calculated value of 2.520, surpassing the critical value of 1.986, with a significance level of 0.013, which is below the 0.05 threshold. This finding confirms the significant influence of the process on user satisfaction with Ruangguru's online tutoring services.

The assessment of the physical evidence component reveals no significant effect on customer satisfaction. The physical evidence variable (X.7) has a calculated value of 0.701, which is lower than the required value of 1.986, and its significance level stands at 0.485, exceeding the 0.05 standard. Therefore, the role of physical evidence in influencing user satisfaction with Ruangguru's services is considered negligible.

Examining the overall model, the independent variable (X) exerts a significant simultaneous influence on the dependent variable (Y), customer satisfaction. The calculated F value of 6.769, exceeding the table value of 2.70 and a significant value of 0.000, which is less than 0.05, indicates a substantial collective impact of the 7P marketing mix variables on customer satisfaction. Additionally, the adjusted R-squared value of 0.340 or 34% highlights that the marketing mix variables explain 34% of the variance in customer satisfaction, with the remaining 66% attributed to other factors outside the model.

The analysis of the 7P marketing mix in the context of Ruangguru's online tutoring services provides valuable insights into the factors influencing customer satisfaction. The research findings reveal that the product aspect significantly contributes to user satisfaction, with a positive impact confirmed through regression coefficient analysis. However, the price, place, promotion, 'people,' and physical evidence components do not exhibit significant effects on customer satisfaction. On the other hand, the process element emerges as a key driver of user satisfaction, supported by statistical significance. Overall, the 7P marketing mix variables collectively have a substantial influence on customer satisfaction, explaining 34% of the variance, while other external factors contribute to the remaining 66%. These insights underscore the importance of focusing on product quality and refining the service process to enhance user satisfaction in the online tutoring industry.

CONCLUSION

The results of the study's multiple linear regression analysis show that only the product and process variables partially affect user satisfaction. It means that the satisfaction of Ruangguru service users is more determined by the quality of the product and the ease of the application use process. Meanwhile, the variables of price, place, promotion, people, and physical evidence have a negligible effect. Simultaneously or together, the seven 7P marketing mix variables significantly affect user satisfaction by 34%. This means that many other factors outside the 7P model influence user satisfaction with Ruangguru's online tutoring service. Therefore, it is recommended that Ruangguru focus more on improving the quality of the product (features and content of the application) and the ease of access and use of the application for users. It is necessary so that Ruangguru can further increase user satisfaction. In this way, Ruangguru can continue to develop and compete in Indonesia's information technology-based education industry.

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