



Analysis of the Influence of Product Definition, Reference Groups and Social Media Marketing on Student Satisfaction with Mediation of Purchasing Decisions (Study at STIE IEU Yogyakarta)

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Abstract: This study aims to analyse the effect of product differentiation, reference group, and social media marketing on student satisfaction at STIE IEU Yogyakarta, with purchase decision as the mediating variable. This study uses a quantitative method with a population of all STIE IEU Yogyakarta students, totalling 160 people. Primary data was collected through a questionnaire instrument given directly to students. This research questionnaire uses a scaling technique with a Likert scale of 1 to 5. Data processing and analysis using the Inferential Partial Least Square (PLS) method, variance-based SEM using smart PLS software version 3, which goes through 3 stages of testing: indicator test, model fit test and hypothesis testing. Product differentiation is expected to increase attractiveness and uniqueness, while reference groups play a role in shaping students' preferences and attitudes towards the products offered. Social media marketing, as an effective communication platform, is able to increase interaction and engagement, which contributes to purchasing decisions. The results of the analysis show that there is a significant relationship between the three independent variables and student satisfaction, with purchasing decisions as a mediator that strengthens the influence. The findings provide insights for educational institutions in formulating more effective marketing strategies to increase student satisfaction and purchase decisions.

Keywords : *Product Definition, Reference Group, Social Media Marketing, Student Satisfaction, Purchasing Decisions.*

1 Introduction

Competition in higher education is highly competitive. Each college strives to be the leader in its sector. Universities must understand the advantages and disadvantages of implementing marketing strategies to be successful. The country's competitiveness, opportunities, fairness and freedom can be affected by national higher education. At present, both public universities (PTN) and private universities (PTS) are facing the same

establishment of professional training and research. In addition, he provided four outlines as models for improving higher education management. The Ministry of Research, Technology and Higher Education's 2024 database shows that there are 3,276 universities in Indonesia, consisting of 3,154 private universities offering 13,970 study programmes and 122 public universities offering 6,546 study programmes. Colleges that lack quality will feel more competitive as they do not have many selling points. The college's strategic plan must support the annual plan to compete. Planning for private colleges is not difficult as it depends on the number of students enrolled, i.e. the number of students enrolled the previous year and the number of new students. The number of new students should equal or exceed the number of students leaving the college due to graduation, withdrawal, or dropout.

Based on these problems, that there is a need for education and understanding of the audience on the programmes run by universities, in addition to the need for improvement in conducting social media marketing in order to expand the audience network so that it can affect brand recognition and the programmes run. Because according to [3] who argues that the ability of potential customers to recognise or recall that a brand is a member of a particular product category is known as brand awareness. Many marketing strategies can be carried out in introducing brands and brand products to be recognised by many people, one of the effective ways to increase brand recognition is to use social media. By using social media, universities can promote campus brands and products through massive advertising so that the brand or college can be recognised by many people.

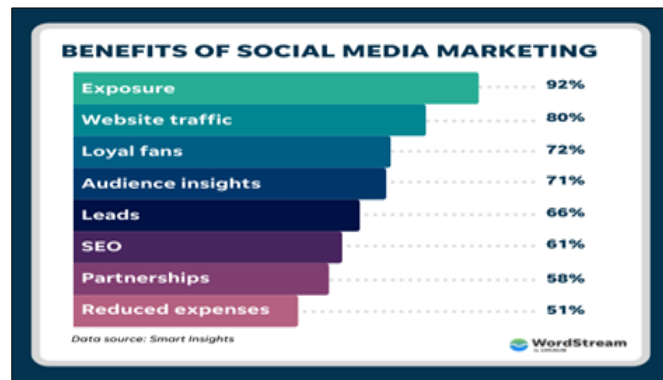


Figure 1. Benefits of Social Media Marketing

Source: Wordstream.com Secondary Data (Indonesia Digital 2019: Social Media, Websindo <https://websindo.com/indonesia-digital-2019-social-media/>, accessed on 10 August 2024).

Today large businesses now need to adopt the idea of social media into their operations to do marketing with social media as a promotional tool [4]. This allows businesses to

measure the efficiency of social media marketing efforts and provides some examples of various marketing techniques that work. Businesses can also estimate the extent of social media participation of new businesses. According to [5] Consumer Behavior Theory, consumer purchasing behaviour is the sum of the views and choices of buyers when they buy a product or service. Several factors influence choices before and after purchase. Differentiation is a process of adding a series of important and valuable differences, in order to distinguish the company's offer from competitors' offers. This can relate to products, employees, services, channels, marketing channels, to image. Differentiation is an important tool in positioning its products against its competitors. The steps taken by the company to differentiate itself against competitors, namely if the product is unique and of high value to consumers. Meanwhile, Product Differentiation itself is used as a differentiation process between a product and a service. Apart from product differentiation and reference groups, social media marketing also influences purchasing decisions, because the advancement of technology can also help and facilitate consumers in accessing products circulating in the market. One of them is through the use of social media which is a means for marketers to widely promote their products such as Instagram, Facebook, and other applications. The use of social media has a big impact on purchasing decisions, because the more social media users today, the greater the opportunity for marketers to advertise their products efficiently [8] states that social media marketing is one of the factors that can influence the process that encourages marketers personally to carry out promotions through websites, services, or products through online social media channels in order to make the item look attractive to a target market [1]

2 Method

The subjects of this research are STIE IEU Yogyakarta students. The object of this research is all research variables that have been described including product differentiation variables, reference groups, social media marketing. The population in this study was determined as an initial step in determining the research sample. The population in this study were STIE IEU Yogyakarta students. With the consideration that these students are considered to know STIE IEU Yogyakarta well and other universities in Yogyakarta, and understand what considerations are in choosing a university. In line with the passage of time there were several students who resigned by giving information, some were inactive. The number of students is 160 people, and this number is the population in this study. The sample used in this study were STIE IEU Yogyakarta students because the population was relatively small, so the sampling technique used in this study was a saturated sampling technique (census), where all members of the population were used as samples. According [6] Census Method or total sampling is a sampling technique where all members of the population are sampled. Determination of the number of samples is highly dependent on the characteristics and number of populations, and based on an initial survey, the population is 160 students. The data collected is primary data. Primary data is data obtained from sources and is raw or unprocessed. Primary data has not been able to provide information in decision making so it needs to be processed further. This primary data is the response of students (respondents) through filling out questionnaires directly, to the uniqueness of the product, reference

group, social media to the interest of prospective students to choose STIE IEU Yogyakarta college.

Inner Model or structural model is actually a hypothesis test, describing the relationship and influence between latent variables based on substantive theory. The equation model can be written as below.

$$\eta = \beta_0 + \beta\eta + r\xi + \zeta$$

Description:

η = vector of endogenous (dependent) latent variables

ξ = vector of exogenous (independent) latent variables

ζ = residual vector

Since PLS is designed for recursive models, the relationship between latent variables can be specified as follows:

$$\eta_j = \sum_i \beta_{ji} \eta_i + \sum_i \gamma_{jb} \xi_b + \zeta_j$$

Where:

β_{ji} and γ_{jb} are path coefficients that relate endogenous predictors and exogenous latent variables ξ_b and η_i along the index range I and b . While ζ_j is the inner residual variable.

Inner model is a test of the structural model carried out by looking at the R-square value as a test of the goodness of fit of the model. In addition, the significance test of the influence between constructs is also carried out by looking at the parameter coefficient value and the significance value of the t-statistic.

Mediation analysis is carried out using the Sobel test, which is a test step to determine whether the effect of the independent variable through the mediating variable is significantly able to mediate the effect. To test how much the role of the mediating variable is used the Sobel test which applies the Z test with the following formula:

Where:

a = regression coefficient of the effect of the independent variable on the mediating variable.

b = regression coefficient of the effect of the mediating variable on the dependent variable.

SEa = standard error of estimation of the effect of the independent variable on the mediating variable.

SEb = standard error of estimation of the effect of the mediating variable on the dependent variable.

Test criteria: if $Z_{score} > Z_{table}$, it proves that the mediating variable is able to act as a mediator between the independent variable and the dependent variable.

3 Result And Discussion

Table 1 Reliability Test Results

Variable	Cronbach's Alpha	Description
Product Definition	0,917	Reliable
Reference Groups	0,862	Reliable
Student Satisfaction	0,873	Reliable

Purchasing Decisions	0,831	Reliable
Social Media Marketing	0,834	Reliable

Table 1 shows that the Cronbach's Alpha value of all variables used in this study is > 0.70 , so the questionnaire measuring instrument is declared reliable.

Table 2 Table Outer Loadings

Product Defibition	Reference Groups	Student Satisfaction	Purchasing Decision	Social Media Marketing	Description
0,797					Valid
0,880					Valid
0,870					Valid
0,757					Valid
0,858					Valid
0,635					Valid
0,735					Valid
	0,889				Valid
	0,872				Valid
	0,894				Valid
				0,877	Valid
				0,842	Valid
				0,777	Valid
				0,769	Valid
			0,871		Valid
			0,840		Valid
			0,788		Valid
			0,756		Valid
		0,909			Valid
		0,905			Valid
		0,607			Valid
		0,968			Valid

The output Table 2 results show the loading factor value in the table that all indicators are valid.

Table 3. cross-loading output results show that all constructs have good discriminant validity.

	Product Differentiation	Reference Group	Student Satisfaction	Purchase Decision	Social Media Marketing
X1.1	0,797	0,414	0,705	0,677	0,332
X1.2	0,880	0,330	0,747	0,679	0,392

X1.3	0,870	0,397	0,784	0,725	0,418
X1.4	0,757	0,559	0,781	0,709	0,391
X1.5	0,858	0,478	0,838	0,771	0,389
X1.6	0,824	0,632	0,837	0,795	0,268
X1.7	0,635	0,324	0,575	0,604	0,167
X1.8	0,735	0,427	0,669	0,662	0,257
X2.1	0,437	0,889	0,633	0,655	0,102
X2.2	0,567	0,872	0,722	0,721	0,124
X2.3	0,489	0,894	0,665	0,724	0,151
X3.1	0,326	0,097	0,400	0,440	0,877
X3.2	0,347	0,124	0,425	0,444	0,842
X3.3	0,335	0,009	0,334	0,320	0,777
X3.4	0,349	0,225	0,455	0,402	0,769
Y1.1	0,632	0,582	0,609	0,871	0,339
Y1.2	0,606	0,918	0,833	0,840	0,193
Y1.3	0,561	0,645	0,729	0,788	0,744
Y1.4	0,657	0,396	0,669	0,756	0,387
Y2.1	0,632	0,557	0,909	0,834	0,453
Y2.2	0,604	0,911	0,905	0,919	0,233
Y2.3	0,521	0,215	0,607	0,596	0,828
Y2.4	0,605	0,805	0,968	0,945	0,374

Figure 4 Path Coefficients

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Value s
Product Differentiation -> Student Satisfaction	0,542	0,541	0,032	16,875	0,000
Product Differentiation -> Purchase Decision	0,541	0,538	0,038	14,061	0,000
Reference Group -> Student Satisfaction	0,266	0,268	0,030	8,979	0,000
Reference Group -> Purchase Decision	0,458	0,457	0,040	11,333	0,000
Purchase Decision -> Student Satisfaction	0,217	0,213	0,048	4,487	0,000
Social Media Marketing -> Student Satisfaction	0,128	0,131	0,026	4,944	0,000
Social Media Marketing -> Purchase Decision	0,207	0,207	0,025	8,353	0,000

In Figure 4 above, First hypothesis: The analysis results show the original sample value of 0.128 and t-statistic 4.944 with a P value <0.05 ($0.008 < 0.05$) which means that social media marketing has a significant positive effect on student satisfaction at STIE IEU Yogyakarta. Thus hypothesis 1 is accepted. Second hypothesis: The analysis results show the original sample value of 0.542 and the t-statistic value of 16.875 with a P value <0.05 ($0.010 < 0.05$). Thus, product differentiation is proven to have a significant positive effect on student satisfaction at STIE IEU Yogyakarta. Thus hypothesis 2 is accepted. Third hypothesis: The analysis results show the original sample value of 0.541 and t-statistic 14.061 with a P value <0.05 ($0.000 < 0.05$) which means that product differentiation is proven to have a significant positive effect on purchasing decisions at STIE IEU Yogyakarta. Thus hypothesis 3 is accepted. Fourth hypothesis: The analysis results show the original sample value of 0.266 and t-statistic 8.979 with a P value <0.05 ($0.020 < 0.05$) which means that the reference group has a significant positive effect on student satisfaction at STIE IEU Yogyakarta. Thus hypothesis 4 can be accepted. Fifth hypothesis: The analysis results show the original sample value of 0.458 with a t-statistic of 11.333 as evidenced by the P value <0.05 ($0.000 < 0.05$) which means that the reference group is proven to have a significant positive effect on purchasing decisions at STIE IEU Yogyakarta. Thus hypothesis 5 can be accepted. Sixth hypothesis: The analysis results show the original sample value of 0.217 and t-statistic 4.487 with a P value <0.05 ($0.006 < 0.05$) which means that purchasing decisions are proven to have a significant positive effect on student satisfaction. Thus hypothesis 6 can be accepted. Seventh hypothesis: The analysis results show the original sample value of 0.207 and t-statistic 8.353 with a P value <0.05 ($0.000 < 0.05$) which means that social media marketing is proven to have a significant positive effect on purchasing decisions at STIE IEU Yogyakarta. Thus hypothesis 7 can be accepted.

4 Conclusion

Based on the results of the discussion in the previous chapter, the conclusions of this study are as follows, social media marketing has a significant positive effect on student satisfaction at STIE IEU Yogyakarta, as evidenced by the results of the hypothesis test that the P value is $0.008 < 0.05$, product differentiation has a significant positive effect on student satisfaction at STIE IEU Yogyakarta, as evidenced by the results of the hypothesis test that the P value is $0.010 < 0.05$, reference groups have a significant positive effect on student satisfaction at STIE IEU Yogyakarta, as evidenced by the results of the hypothesis test that the P value is $0.020 < 0.05$, product differentiation has a significant positive effect on purchasing decisions at STIE IEU Yogyakarta, as evidenced by the results of the hypothesis test that the P value is $0.000 < 0.05$, reference groups have a significant positive influence on purchasing decisions at STIE IEU Yogyakarta, which is evidenced by the results of the hypothesis test that the P value is $0.000 < 0.05$, Social media marketing has a significant positive effect on purchasing decisions at STIE IEU Yogyakarta, which is evidenced by the results of the hypothesis test that the P value is $0.000 < 0.05$, Purchasing decisions have a significant positive effect on student satisfaction at STIE IEU Yogyakarta, which is evidenced by the results of the hypothesis test that the P value is $0.006 < 0.05$, and purchasing decision variables have a significant effect

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