The Effect of Social Media Marketing on Marketing Performance in Higher Education during Covid-19 Pandemic with Customer Satisfaction as Intervening Variable

Afif Panji Thuvail Lagonah, Fiona Avangeline Jonathan, Devrel Wijaya, Nurlina

Information Systems Department, School of Information Systems,
Bina Nusantara University,
Jakarta, Indonesia 11480
afif.lagonah@binus.ac.id, fiona.jonathan@binus.ac.id, devrel.wijaya@binus.ac.id, nurlina@binus.edu

Abstract

This study aims to identify the direct and indirect effect of Social Media Marketing use on Marketing Performance in a university during the COVID-19 pandemic and customer satisfaction as an intervening variable. The research data is collected through questionnaires and literature studies methods. Questionnaires are distributed to students of the 2020/2021 and 2021/2022 academic years. The analytical method used in this quantitative research is the PLS-SEM approach using SmartPLS software version 3.3.4. This study shows that Social Media Marketing has a positive and significant direct and indirect effect (intervened by Customer Satisfaction) on Marketing Performance.

Keywords

Social Media Marketing, Customer Satisfaction, Marketing Performance, college, COVID-19.

1. Introduction

Based on the conditions currently experienced by every country worldwide, including Indonesia, during the COVID-19 pandemic, all business sectors have undergone drastic changes. The COVID-19 pandemic is bringing new and unexpected challenges to universities worldwide (Zalite & Zvirbule, 2020). The COVID-19 pandemic entered Indonesia in March 2020 and forced all business sectors to adapt to these changes, including the education sector. Like other sectors, researchers are also aware that the education sector is also significantly affected. In addition to the impact on the learning system, the COVID-19 pandemic has also brought huge financial consequences to the higher education sector (Halterbeck et al., 2020). As part of the education sector, universities' ability to adapt in the face of a pandemic situation is tested so that they can continue to provide the best exposure and service to the community with their technological knowledge. Failure to adapt will have various impacts on universities, one of which is the financial impact of lower enrolment. An online approach is a good choice for universities to continue to establish good relations and maintain exposure to potential students (Rager, 2020). One of the strategies that universities can apply is the application of Social Media Marketing which can help universities do marketing in the midst of limiting social contacts through social media. The social media domain has become a low-cost but high-quality source of information about everything that is happening in the market (Constantinides, 2014).

The implementation of Social Media Marketing will also facilitate various online marketing activities such as targeted advertising, social media marketing, dissemination of information related to online campus tours, open houses, promotions, information about lectures, etc. Statistical data generated from the use of social media can also provide information or knowledge to universities regarding various matters, such as ongoing trends, public opinion, levels of interest or anxiety, and so on (Ostrowski, n.d.). These insights can then be used to make adjustments or changes to strategies, services, products, promotions, price calculations, etc. (Woodcock et al., 2011). This enables universities to better understand customer needs or desires and combine marketing strategies, customer service and visual content that attracts customer attention through social media. In theory, Social Media Marketing has a positive impact, and through

this research, it will be proven in practice that Social Media Marketing can have a significant effect on the object of higher education. This research is expected to answer the problems faced by universities during the COVID-19 pandemic. The formulation of the problem from this research is whether Social Media Marketing has a direct or indirect influence through Customer Satisfaction on Marketing Performance and how is the satisfaction of students who register through online registration during the pandemic for 2020/2021 and 2021/2022 academic periods at a university. According to (Sugiyarti, 2016), marketing performance is a measure of achievement of the overall marketing process activities within the organization. From the formulation of the problem that will be answered in this research, the researchers set a goal, namely, to determine the direct and indirect effect of Social Media Marketing through Customer Satisfaction on Marketing Performance and to find out the satisfaction of students who registered online during the pandemic for the 2020/2021 lecture period. and 2021/2022 at a university.

2. Research Methods

To achieve the desired goals and benefits, the researcher uses several methods that support the writing of this thesis. These methods include methods for collecting and analyzing data. In collecting data, researchers used library research and field research. In library research, researchers conduct research based on books, articles, or research journals from relevant sources to support the evaluation of the influence of Social Media Marketing on customer satisfaction and marketing performance of universities in the middle pandemic. For field research, the researchers perform direct research at one of the universities located in Greater Jakarta. For the sampling technique, the researcher uses the theory of (Supardi, 1993), namely, Simple Random Sampling is sampling taken randomly from a population group without regard to the level or strata in the population group. To obtain data, the researcher distributed questionnaires, a data collection technique used to give respondents a series of written questions or statements to answer. The questionnaire is an efficient data collection technique if the researcher knows with certainty the variables to be measured and knows what to expect from the respondents (Sugiyono, 2013). Questionnaires will be used to collect data from students who register online in 2020 and 2021 for the 2020/2021 and 2021/2022 lecture periods to know the relationship and effect of using Social Media Marketing on customer satisfaction and marketing performance of a university during the COVID-19 pandemic.

In this study, researchers used quantitative research methods. Data were collected from a sample of a selected population and analyzed using appropriate statistical methods. Through the SmartPLS application, perform an Outer Model analysis to define how each latent variable relates to its manifest variable. Then, the Inner Model analysis was also carried out to define the relationship between latent variables and whether the structural model built was good and accurate. In addition, hypothesis tests were performed using the bootstrapping method. The results obtained will then be interpreted further based on the theory used. Furthermore, research was also conducted by observing a university's Instagram social media activities for an overview of social media usage (Figure 1).

3. Results and Discussion

3.1 Research Model

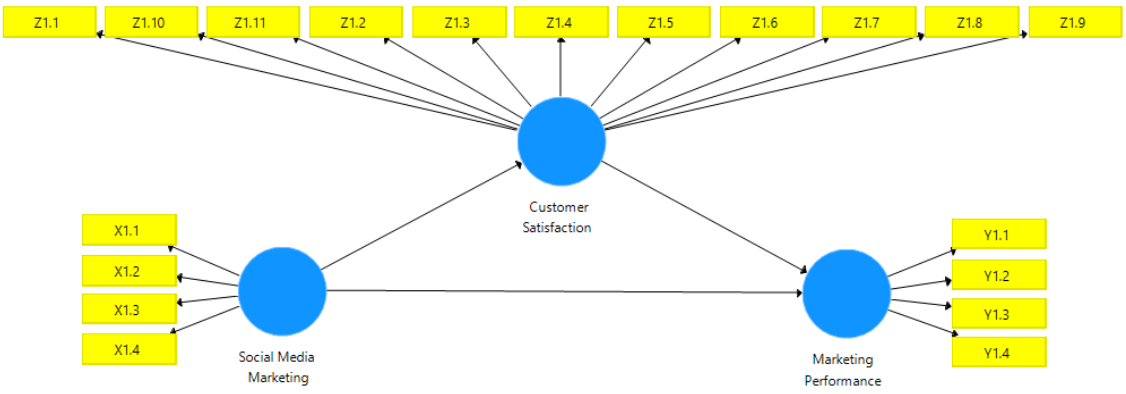

Figure 1. Research Model

3.2 Outer Model Calculation

Table 1. Outer Loadings

	X1	Y1	Z1
X1.1	0.854		
X1.2	0.858		
X1.3	0.796		
X1.4	0.831		
Y1.1		0.851	
Y1.2		0.881	
Y1.3		0.817	
Y1.4		0.891	
Z1.1			0.853
Z1.2			0.874
Z1.3			0.850
Z1.4			0.817
Z1.5			0.883
Z1.6			0.811
Z1.7			0.779
Z1.8			0.847
Z1.9			0.783
Z1.10			0.820
Z1.11			0.719

Description:

- X1 = Social Media Marketing
- Y1 = Marketing Performance
- Z1 = Customer Satisfaction

Table 2. Average Variance Extracted (AVE)

	Average Variance Extracted (AVE)
Social Media Marketing	0.697
Marketing Performance	0.740
Customer Satisfaction	0.677

Table 3. Fornell-Larcker Criterion

	Social Media Marketing	Marketing Performance	Customer Satisfaction
Social Media Marketing	0.835		
Marketing Performance	0.746	0.861	
Customer Satisfaction	0.713	0.645	0.823

Table 4. Cross Loadings

	X1	Y1	Z1
X1.1	0.854	0.617	0.588
X1.2	0.858	0.670	0.731
X1.3	0.796	0.527	0.486
X1.4	0.831	0.662	0.542
Y1.1	0.553	0.851	0.553
Y1.2	0.665	0.881	0.589
Y1.3	0.608	0.817	0.489
Y1.4	0.725	0.891	0.583
Z1.1	0.605	0.563	0.853
Z1.2	0.594	0.608	0.874
Z1.3	0.618	0.542	0.850
Z1.4	0.623	0.469	0.817
Z1.5	0.678	0.602	0.883
Z1.6	0.610	0.536	0.811
Z1.7	0.535	0.487	0.779
Z1.8	0.589	0.507	0.847
Z1.9	0.501	0.468	0.783
Z1.10	0.530	0.536	0.820
Z1.11	0.541	0.494	0.719

Description:

- X1 = Social Media Marketing
- Y1 = Marketing Performance
- Z1 = Customer Satisfaction

Table 5. Cronbach's Alpha

	Cronbach’s Alpha
Social Media Marketing	0.856
Marketing Performance	0.883
Customer Satisfaction	0.952

Table 6. Composite Reliability

	Composite Reliability
Social Media Marketing	0.902
Marketing Performance	0.919
Customer Satisfaction	0.958

Based on the results of calculations, the results obtained indicate that the research instrument used is both convergent and discriminant valid. This is based on the results of the outer loadings value, which is more than 0.7, the entire AVE value generated is more than 0.5 (Table 1- 7), the Fornell-Larcker Criterion results with the square root value of the AVE of each construct greater than the correlation value of the construct with other constructs, and Cross Loadings where the loading value of each indicator with its construct is greater than the cross-loading value of the indicator with other constructs (Hair et al., 2014).

3.3 Inner Model Calculation

Table 7. R Square

	R Square	R Square Adjusted
Marketing Performance	0.583	0.574
Customer Satisfaction	0.508	0.503

Table 8. Predictive Relevance

	Q^2 (=1-SSE/SSO)
Marketing Performance	0.422
Customer Satisfaction	0.337

Table 9. Standardized Root Mean Square Residual

	Saturated Model	Estimated Model
SRMR	0.068	0.068

According to the calculation results, the value of R Square (Garson, 2016) shows that marketing performance is 58% influenced by social media marketing and customer satisfaction. Second, customer satisfaction as the mediation variable is 51% influenced (Tables 7-10) by social media marketing. Then, the two Q Square values obtained show that the model used in this study has predictive relevance because it is above 0 (Hair et al., 2017). Lastly, the Standardized Root Mean Square Residual (SRMR) value shows that the model used is classified as fit because the value is more than the specified standard, which is 0.06 (Henseler et al., 2016).

3.4 Hypothesis Testing

Table 10. Path Coefficients

	Original Sample (O)	T Statistics (|O/STDEV|)	P Values
Social Media Marketing → Marketing Performance	0.582	6.423	0.000
Social Media Marketing → Customer Satisfaction	0.713	13.649	0.000
Customer Satisfaction → Marketing Performance	0.230	2.282	0.023

Table 11. Specific Indirect Effects

	Original Sample (O)	T Statistics (|O/STDEV|)	P Values
Social Media Marketing → Customer Satisfaction → Marketing Performance	0.164	2.111	0.035

The results of testing the research hypothesis using the bootstrapping method show that Social Media Marketing has a positive and significant direct influence on Marketing Performance. Social Media Marketing also has a positive and significant direct influence on Customer Satisfaction. Lastly, Customer Satisfaction also has a positive and significant direct influence on Marketing Performance. The three conclusions were drawn based on the original sample values , which were all positive values (Hair et al., 2017) and T-Statistics, which were all greater than 1.96 (Avkiran & Ringle, 2018). From these results, it is found that there is a positive and significant influence both the direct influence of Social Media Marketing on Marketing Performance and indirectly through Customer Satisfaction. This proves that all research hypotheses are proven, especially the first hypothesis (H1) and the fourth hypothesis (H4), which this research wants to prove. According to (Cepeda et al., 2017), a condition where direct and indirect effects have a significant influence represents partial mediation. Hair also explained that partial mediation occurs when a mediator variable partially explains the relationship between exogenous and endogenous constructs (Hair et al., 2017). Then, the results of hypothesis testing also show that the direct and indirect effects both have a positive direction. In addition, Hair also believes that partial mediation can be broken down into Complementary Partial Mediation and Competitive Partial Mediation. Complementary Partial Mediation is used to describe situations where the direction of influence of direct and indirect influence points in the same direction, while Competitive Partial Mediation is used to describe situations where the direction of influence of direct and indirect influences points in the opposite direction (Hair et al., 2017). Therefore, it can be concluded that the type of mediation that occurs in this research model is Complementary Partial Mediation.

4. Conclusions and Suggestions

4.1 Conclusion

From these results for the formulation of the first problem, social media Marketing directly influences Marketing Performance. The second problem is, Social Media Marketing has an indirect influence on Marketing Performance through Customer Satisfaction. It is found that the influence of Social Media Marketing on Marketing Performance is positive and significant both in terms of directly and indirectly through Customer Satisfaction. The direction of the same influence and the level of significance indicates that the type of mediation in the research model is Complementary Partial Mediation. For the third problem, the satisfaction of students who register from online registration during the pandemic for the 2020/2021 and 2021/2022 academic periods at a university, it can be concluded from the survey results of respond that 85% of respondents answered that they were satisfied with the performance of the university.

4.2 Suggestion

For the universities, the use of social media marketing can have an important impact on customer satisfaction and marketing performance. Therefore, the researcher suggests universities to increase the use of Social Media Marketing to support better marketing performance and increase customer satisfaction. In addition, universities are advised to use Instagram in distributing various information regarding registration, scholarships, majors, educational activities and open houses, as well as other important information because of the results of questionnaires regarding students who register online at a university for the academic year 2020/2021 and 2021/2022 the most aware of social media used by universities is Instagram, as many as 93 respondents answered Instagram as one of the social media known by respondents. The researchers also suggest universities to adopt social media such as WhatsApp and LINE and improve performance in serving customers through social media to increase the level of customer satisfaction. This is based on research that revealed that both social media were the most widely used by respondents to communicate with universities when experiencing registration problems.

References

Avkiran, N. K., & Ringle, C. M., *Partial Least Squares Structural Equation Modeling Recent Advances in Banking and Finance* (Vol. 267). Springer.2018. http://www.springernature.com/series/6161

Cepeda, G., Nitzl, C., & Roldán, J. L., Mediation Analyses in Partial Least Squares Structural Equation Modeling. Guidelines and Empirical Examples. 2017. https://www.researchgate.net/publication/315697035

Constantinides, E, *Foundations of Social Media Marketing. Procedia - Social and Behavioral Sciences, 148, 40–57, 2014.*

Garson, G. D, PARTIAL *LEAST SQUARES (PLS-SEM) 2016 Edition*. Statistical Associates Publishing. www.statisticalassociates.com

Hair, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G, Partial *least squares structural equation modeling (PLS-SEM): An emerging tool in business research. European Business Review, 26(2), 106–121.* , 2014.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M., A *Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) Second Edition* (Second Edition). SAGE., 2017.

Halterbeck, M., Conlon, G., Williams, R., & Miller, J, *Impact of the Covid-19 pandemic on university finances.* www.londoneconomics.co.uk., 2020.

Henseler, J., Hubona, G., & Ray, P. A, Using PLS path modeling in new technology research: Updated guidelines. *Industrial Management and Data Systems*, *116*(1), 2–20. , 2016.

Rager, L. E, The *Impact of COVID-19 on Recruitment, Enrollment, and Freshman Expectations in Higher Education.* 2020

Sugiyarti, G., ANALISIS *KINERJA PEMASARAN USAHA KECIL MENENGAH BATIK DI PROVINSI JAWA TENGAH. Fakultas Ekonomika Dan Bisnis Universitas 17 Agustus 1945 (UNTAG) Semarang.* 2016

Sugiyono. , *Metode Penelitian Kuantitatif Kualitatif dan R&D. Alfabeta.* 2013

Supardi. , *Populasi dan Sampel Penelitian.* 1993.

Woodcock, N., Green, A., & Starkey, M., Social *CRM as a business strategy. Journal of Database Marketing and Customer Strategy Management*, 18(1), 50–64. 2011. https://doi.org/10.1057/dbm.2011.7

Zalite, G. G., & Zvirbule, A., *Digital readiness and competitiveness of the EU higher education institutions: The COVID-19 pandemic impact. Emerging Science Journal,* 4(4), 297–304. https://doi.org/10.28991/esj-2020-01232 2020