Journal of Positive School Psychology
2022, Vol. 6, No. 3, 218–223 http://journalppw.com

E-WOM: Effect on Edutech Purchase Decision

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Abstract

Educational technology (edutech) is deemed to play a big role in the improvement of educational equity and quality in Indonesia. Technology in education is a necessity in the current industrial revolution era. The development of the Internet provides many benefits for various sectors including the world of education. This research was conducted to find out how effective the use of E-WOM in influencing edutech purchase decisions in Indonesia. To this end, an explanatory survey was carried out involving a sample 250 students in West Java, Indonesia, selected using the proportional sampling technique. The result of this study shows that eWOM had a significant effect on purchase decisions.

Keywords: E-WOM; Purcharse Desicion; Edutech.

1

Introduction

The industrial revolution 4.0 comes with both challenges and opportunities for the education sector (Maulani & Hamdani, 2019b; Retnawati, 2019). The education sector has inevitably to adjust to the dynamics of digital technology to meet the demands of a completely new decade (Badhani & Mut, 2018; Maulani & Hamdani, 2019a). The development of the educational techology or edutech industry in Indonesia in recent years sees a positive trend. Based on Forbes market and research, this industry is predicted to grow to 325 billion US dollars by 2025 globally. Meanwhile, in Indonesia Edutech is at the fastest growth with a figure reaching 25% every year, surpassing other countries in Asia, even the whole world (Harususilo, 2019). Edutech emerges in a variety of platforms, ranging from education marketplaces, course providers, to digital learning content developers (Eka, 2018).

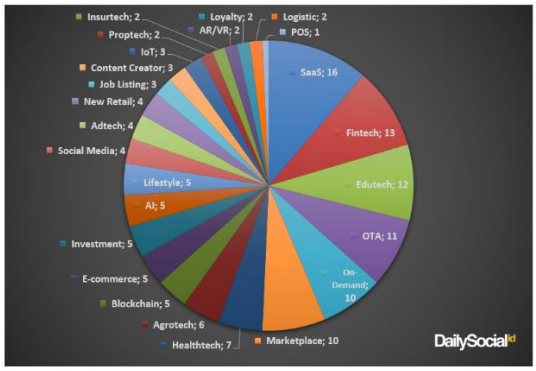

Figure 1 : Emerging Startups in Indonesia by Service Category (Eka, 2018)

Data compiled by DailySocial shows that Kelase has experienced a significant increase in traffic in less than a week to tenfold, and the number of users is soaring up to 33 percent. While Quipper recorded a 30-fold increase in traffic over the past week after the enactment of home learning on March 16. A total of 128 thousand assignments were given by 10,000 active teachers in 10,000 schools, and more than 121 thousand active students have answered questions from 69 million questions in the question bank on the Quipper platform. This shows that there is an increasing trend in Edutech purchase decisions (Ribeiro, 2016). Improved digital learning services bring changes in student learning, allowing a blended learning practice to happen (Viorica & Carmen, 2013; Galvis, 2018).

To survive business competition, companies must have a competitive advantage to attract consumer purchase decisions. Consumers will use their prior knowledge to evaluate two or more alternatives and choose one of them. Thus, purchase decisions can be interpreted as

consumers' selection of two or more alternatives to meet their needs (Kotler, Philip dan Keller, 2012). Consumer purchase decisions can be influenced by positive or negative information in electronic media or what is called electronic word of mouth (Wan et al., 2015; Thoumrungroje, 2014; Xiaorong, Bin, Qinghong, Liuli, & Yu, 2011). With higher accessibility and broader coverage thanks to the Internet, electronic word of mouth is considered more effective than offline word of mouth communication (Ioanăs & Stoica, 2014). e-WOM is a positive or negative statement made by potential customers, real consumers, or former consumers about a product or company that can be accessed by many people or institutions on the Internet. There are several motives as to why a consumer engages in e-WOM; among others are platform assistance, venting negative, concern for other consumers, extraversion/positive self-enhancement, social benefits, economic incentives, helping the company, and advice seeking (Hennig-Thurau, T., Gwinner, K. P., Walsh, G. and Gremler, 2004). There are three dimensions with which e-WOM can be measured: intensity, positive and negative valence, and content (Goyette et al., 2010).

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2 Literature Review

E-WOM's ability to make an impact on purchase decisions and business performance is due to the development of information technology as a major factor (Hamdani et al., 2019)(Hamdani, 2018). A purchase decision refers to a decision-making process by an individual by assessing, obtaining, using, or ignoring goods and services. Its dimensions include confidence in a product, product buying habits, provision of recommendations to others, and repeat purchase (Kotler & Keller, 2009). Research shows that online purchase decisions may be influenced by confidence, price, and delivery (Edwar et al., 2018). e-WOM affects purchase decisions on social media (Hakim et al., n.d.). There are several eWOM factors that influence a purchase decision making: online reviews, eWOM volume, eWOM channels, and type of eWOM (Lerrthaitrakul & Panjakajornsak, 2014). eWOM is deemed more powerful than various marketing and advertising strategies. When used as a marketing strategy on social media, the effect on purchase decision could be significant (Poturak & Turkyilmaz, 2018) (Lerrthaitrakul & Panjakajornsak, 2014).

e-WOM can be defined as a communication medium for sharing information about a product or service between consumers who do not know each other and have not met before (Hamdani & Maulani, 2018). The main characteristic of e-WOM is that the source of information is independent. This can be interpreted that the e-WOM information source is not affiliated with a particular company and does not benefit any company. Therefore, e-WOM information is trusted more than information from companies (Alam Hamdani & Abdul Fatah Maulani, 2018; Kaijasilta, 2013). e-WOM is particularly popular among the youth (Iyer et al., 2017). This study is aimed at examining the effect of e-WOM on Edutech marketplace purchase decisions among university students. It is expected that this study would provide universities and Edutech providers with information concerning e-WOM driven purchase decisions.

3 Methodology/Materials

This study was conducted using an explanatory method. The sample size was 250 high school students in West Java, Indonesia, selected using the proportional sampling technique. Data analysis was performed using PLS-SEM by means of SmartPLS. eWOM was measured using the following indicators: intensity, valence of opinion, and content, and purchase decesion was measured using product choice, brand choice, dealer choice, purchase timing, and purchase amount.

4 Results and Findings

The bootstrapping method was performed during SmartPLS data processing so that data normal distribution test was no longer necessary. The SmartPLS data processing resulted in the following modeling

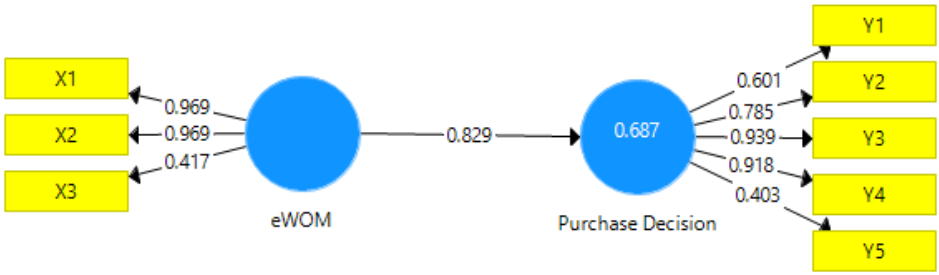

Figure 1. SmartPLS Modeling

Figure 1 shows that the path coefficient between eWOM (X) and purchase decision (Y) was 0.829, indicating that eWOM had an effect on purchase decision as much as 0.829. The factor loading value of content (X1) was 0.969, meaning that eWOM contributed to content as much as 0.969. Valence of opinion (X2) and intensity (X3) had factor loading values of 0.969 and 0.417 respectively. This indicates that eWOM contributed 0.969 to valence of opinion and 0.417 to intensity.

As for the purchase decision indicators, dealer choice (Y1) had a factor loading value of 0.60, brand choice (Y2) had a factor loading of 0.785, product choice (Y3) had a factor loading of 0.939, purchase timing (Y4) had a factor loading of 0.918, and purchase amount (Y5) had a factor loading of 0.403. This all means that purchase decision contributed 0.60 to dealer choice, 0.785 to brand choice, 0.939 to product choice, 0.918 to purchase timing, and 0.403 to purchase amount. The PLS algorithm shows that X3, Y1, and Y5 had factor loading values lower than the suggested value of 0.7, they were; therefore, removed from the modeling.

Table 1 Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Purchase Decision	0.814	0.942	0.862	0.573
eWOM	0.743	0.941	0.854	0.684

Table 1 shows that the value of each construct is above 0.6, suggesting that all indicators used in this study were valid and had the convergent validity. Furthermore, the average variance extracted (AVE) values of both variables are above the suggested value of 0.5. Therefore, it could be concluded that both variables had the discriminant validity.

The composite reliability values of purchase decision and eWOM are 0.942 and 0.854 respectively. These values are above the suggested value of 0.7, indicating that both variables were reliable. The reliability of both variables is also justified by each of their Cronbach's alpha value of 0.814 and 0.743, higher than the suggested value of 0.6.

Table 2. R Square

	R Square	R Square Adjusted
Purchase Decision	0.687	0.678

Table 2 presents the result of inner model test, showing that purchase decision had an R-square of 0.687. To enable the hypothesis testing in PLS-SEM, outer model test was carried out using the bootstrapping method. The result is presented in Table 3.

Table 3. Path Coefficient

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
eWOM -> Purchase Decision	0.857	0.855	0.052	16.369	0.000

Table 3 shows that eWOM had a significant effect on purchase decisions because the T-statistics value was 16.369 (>1,66). The original sample estimate value of 0.857 shows that the relationship between the two variables is positive. This result is in line with those of some previous studies saying that eWOM affected purchase decisions (Ribeiro, 2016)(Lamba B. and Manav Aggrawal, 2016). Some studies say that eWOM is a determinant factor in purchase decisions (Hamdani & Maulani, 2018); (Fan et al., 2013). However, eWOM also may also have a negative effect on purchase decisions (Kumar & Purbey, 2013). Therefore, it takes an eWOM credibility to allow marketers to better improve consumer engagement by producing credible peer-to-peer communication (Moran & Muzellec, 2017).

5 Conclusion

Using PLS-SEM calculation, this study has found that eWOM had a significant effect on purchase decisions. The indicator intensity was removed from the PLS modeling since its factor loading was lower than the suggested value, meaning that edutech purchase decisions is not influenced by how often one accesses information on social networking media. Put another way, the frequency of interaction between social networking media users and the number of reviews they write on it do not contribute to purchase decisions. Meanwhile, eWOM content and valence of opinion were instrumental in edutech purchase decisions by millennials.

Acknowledgement: This research work is supported by Faculty of Entrepreneurship, Universitas Garut - Indonesia.

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