

The Effect of Electronic Word-Of-Mouth on Customer Purchase Intention (Case Study: Bandung Culinary Instagram Account)

Cynthia Dwi Rizqia, Herry Hudrasyah

Abstract— Nowadays, human communication occurred by the basic of text-based technology. Instagram is one of text-based technology that used by business people as a tool of Electronic Word-of-Mouth (eWOM) to attract customer then lead to purchase intention. The research uses questionnaire and SEM analysis to analyze the relationship between customer and purchase intention with eWOM as the intervening variable. The research focused on Bandung culinary account on Instagram. The respondent which involved in this research is 231 respondents. The study shows that eWOM give partial mediation effect to the relationship between customer and purchase intention

Keywords—Electronic Word-of-Mouth, Instagram, Purchase Intention

I. INTRODUCTION

In the past, communication between people relied solely on attitude or gestures and movements of the human body when deliver a message. However, the process is now replaced with the text-based communication on electronic social media. The using of social media is now able to influence how humans acquire knowledge work, shop and communicates [19].

Marketers now are using internet as a platform in communicating the company message to public to attract customer. The communication process between customers through internet is known as Electronic Word-of-Mouth (eWOM) [6].

Instagram is one of a text-based technology that basically used as a tools for online marketing. Instagram is one example of social media which is widely used to record information such as location, time and pictures. This information is useful to control the strength of message content as a customer reference to obtain information about a product. Marketers are using Instagram as a stimulus for customers to attract them then lead to purchase intention.

Bandung is well known as the tourist city in Indonesia with rapid growth on culinary sector. The competition between culinary businesses has expanded, making internet marketing

strategies as one of the competitive advantage. Culinary businesses are now using social media as their tools to market their business, such as Instagram. Because of this, now there are many culinary accounts in Instagram. Both account that owned privately by a culinary business (posting all about their products) such as @missbee_providence or an account that's being a collection of various culinary business such as @kulinerbandung, @makanpakereceh, @bandung_eatery.

This research investigate the role of eWOM on Instagram Bandung culinary account as intervening variable for customer and purchase intention.

II. THEORETICAL FOUNDATION & HYPOTHESIS

A. Customer

Customer means people or organization who frequently visit shop or store, and then make purchase action by buying the product. The product provider (store owner) should ensure that his/ her is satisfied. According to pattern of purchasing behaviour, customer can be divided based on the specific types. The first one is Ready-to-Buy-Customer, which refers customer urgency. The next is Potential Customers, the customer who simply by gathering information, such as browsing, has the potential of becoming a customer. This type of customer is not urgent to do purchase decision. Repeat Customer, means that they are purchase the product regularly. The next is Sale or Discount Customer who always shop when there is a big deals available on the items which they want to buy. The last is Impulse Buying Customers, which make purchase decision based upon a whim or a great sales presentation. This type of customer will make decision directly on the spot for something that seems good to them [7]

B. Purchase Intention

The intention to buy is the prediction of buyer about which brand or company he will select to buy [8]. Intention to buy may be referred as a reflection of real purchase behaviour. The greater the purchase intention is, the greater a consumer's desire is to buy a product or service [9]. Purchase intention process occur when the consumers perceive product preference in the stage between making purchase evaluation and the actual purchase behaviour.

Furthermore, consumer behavior purchase decision occurs when consumer are stimulates by external factors based on the process of decision making and personal characteristics [10]. Consumer experience is also influencing purchase intention

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[11]. Customer's preferences had been influenced by experience, which then afterward affects the customer's purchase decision. [4].

C. Electronic Word-of-Mouth

Internet has led Word of Mouth (WOM) communication being present everywhere at once and removed the necessity of being physically present [12].

Use of the Internet allows the emergence of new forms of communication platforms which can empower providers and consumers, allowing them to share information and good opinion of Business-to-Consumer, and of Consumer-to-Consumer [13]. This new trend is known as the Electronic Word of Mouth (eWOM).

Message which contained in eWOM will be very important as reference to enable customers to make purchase decision. eWOM became an important tool for consumers to obtain information about the quality of products and quality of service [14]. In addition, the message is effective in reducing the risk and uncertainty experienced by consumers when purchase a product or service, so consumer purchasing decision may be influenced [12].

Instagram

In the last of December 2014, Instagram reported had reached more than 300 million active users in which numbers are achieved within 4 years after its launch in 2010. Instagram is one of social media that expected will increase the users in 2015.

Instagram is a popular photo-sharing smart phone application of social media and widely used to record a journey information such as location, time and pictures. Currently instagram is used as an online marketing media which has already been used by business people. Instagram is considered as an alternative media marketing that have a great opportunity. This service allows users to share a photo, combining the social media and business world. Instagram can be used to control the strength of the message content as a customer reference to obtain information about a product.

Culinary business people now are using Instagram as their tools for marketing their business. Now there are many Bandung culinary accounts in Instagram. Both account that owned privately by a culinary business (only post about its product) such as @missbee_providore or an account that's being a collection of various culinary business such as @kulinerbandung, @makanpakereceh, @bandung_eatery.

This study is adopting the intervening variable model. Intervening variable or mediating variable is variable that explains a relation or causal link between independent and dependent variable [1]. In this research, Customer as independent variable while Purchase Intention is dependent variable. Electronic word-of-mouth on Instagram which became the intervening variable as a bridge for the relationship between Customer and Purchase Intention. The proposes of research model and variable indicator shown in the Table I and Figure 1.

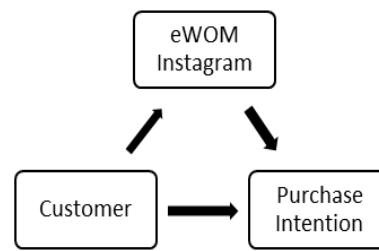


Fig. 1 Proposed research model

TABLE I
VARIABLE INDICATOR

Variable	Indicator	Define Indicator	Adopted from
Customer	Credibility	The extent to which the level of customer confidence on the message of product information and recommendation is true and trustworthy.	Rizky Ameidya Sari (2014) [15]
Electronic word-of-mouth Instagram (eWOM Instagram)	Platform Assistance	The extent to which customer is confidence in using Instagram	Rizky Ameidya Sari (2014)
	Advice Seeking	The extent to which customer is using Instagram to look for more information about culinary places in Bandung	Rizky Ameidya Sari (2014)
	Volume / Intensity	The intensity level of using Instagram in searching for culinary places information.	Rizky Ameidya Sari (2014), and Goyette et al (2010) [17]
Purchase Intention	Trust	The extent to which customers are willing to visit culinary places based on friend recommendation	Nguyen Than Hung (2012) [16]
	Price	The extent to which customers are willing to visit culinary places based on price information	Nguyen Than Hung (2012)
	Appearance	The extent to which customers are willing to visit culinary places based on place's layout design.	Nguyen Than Hung (2012)
	Knowledge of product	The extent to which customers are willing to visit culinary places based on the reputation	Nguyen Than Hung (2012)

As explanation above, therefore researcher create hypothesis as follow:

- H1: Customer is positively correlated to eWOM Instagram.
- H2: eWOM Instagram is positively correlated to Purchase Intention.
- H3: Customer is positively correlated with Purchase Intention.

III. METHODOLOGY

A. Data Collection

This research used primary data that conducted through questionnaires, which disseminated online on the URL bit.ly/akunkuliner. The respondent must have Instagram and follow one of Bandung culinary Instagram account. The link of questionnaire was distributed via LINE messenger application, and social media. The number of collected respondents are 255, but after conducting data screening there are 24 respondents who are not qualified because the respondents are not Instagram users. Thus, there are 231 qualified data that next used in data analysis. The demographic of respondents is shown in Table II, and the basic information of respondent behaviour towards Instagram is shown in Table III

TABLE II
DEMOGRAPHIC PROFILE

Measure	Items	Frequency	%
Gender	Female	172	74%
	Male	59	26%
Age	>15 tahun	0	0%
	15-20 tahun	127	55%
	21-25 tahun	103	45%
	26-30 tahun	1	0%
	>30 tahun	0	0%
Occupation	Student	4	2%
	College Student	209	90%
	Employee	10	4%
	Entrepreneur	3	1%
	Other	5	2%
Expense per month	<Rp 1.000.000,-	77	33%
	Rp 1.000.001 - Rp 3.000.000,-	134	58%
	Rp 3.000.001 - Rp 5.000.000,-	13	6%
	Rp 5.000.001 - Rp 7.000.000,-	7	3%
	>Rp 7.000.000,-	0	0%
Domicile	Bandung	198	86%
	Jakarta	13	6%
	Other	20	9%

TABLE III
CUSTOMER BEHAVIOR TOWARDS INSTAGRAM

Measure	Items	Frequency	%
Instagram User	Yes	231	100%
	No	0	0%
Familiarities with culinary account on Instagram	Yes	231	100%
	No	0	0%
Familiarities with Bandung culinary account on Instagram	Yes	231	100%
	No	0	0%
Following Bandung culinary account on Instagram	Yes	231	100%
	No	0	0%
Experience in following Bandung culinary account	>1 month	87	38%
	1-2 months	35	15%
	3-4 months	52	23%
	>4 months	57	25%
Intensity the use of Instagram as preferences in choosing culinary places (within 3 months)	Never	24	10%
	1-3 kali	108	47%
	4-6 kali	56	24%
	7-9 kali	19	8%
	>9 kali	24	10%
Uploading culinary photos on Instagram account	Yes	90	39%
	No	141	61%

B. Measurement

The scale of measurement that used in this research is Likert scale with interval of assessment for each respondent answers. Likert scale has 5 levels of points starting from point 1= strongly disagree, point 2= disagree, point 3= neutral, point 4= agree, and point 5= strongly agree. This measurement is used in questionnaire to assess the relationship between customer and purchase intention through electronic word-of-mouth on Bandung culinary Instagram accounts.

Furthermore, the questionnaires use multiple choices option to assess the basic information of respondents and respondents' general behaviour towards the use of Instagram.

Reliability and validity test was performed on the survey results. The test was conducted on the pilot project involving of 9 respondents. The result of reliability indicator α values were all between 0.643 and 0.818. The reliability indicator α values were all greater than 0.6, the reliability indicator α value is accepted[2]. The validity test was acceptable with the rules of thumb if corrected-total item correlation above 0.66. Furthermore, the datas which have been collected are analysed using SEM (Structural Equation Modelling).

IV. RESULTS

A. Measurement and Structural Model

The measurement of data's research was conducted using AMOS 22. Table IV explains the result of goodness-fit test, which indicates the extent to which the specified model

reproduces the covariance matrix among the indicator items is well [18]. CFA of Confirmatory Factor analysis is structural equation modeling that deals with the relationships between observed measures or indicators and factors.

TABLE IV
CFA MODEL FIT

Indices	Result	Rules of Thumb	Comments
Chi-Square	49.336	-	-
DF	24	-	-
p-value	0.002	>0.05	Poor fit
CMIN/DF	2.056	Below 3 is good, in range 3 to 5 is acceptable.	Good
RMR	0.035	<0.1 is good	Good
SRMR	0.0389	Not below - 4.0 or above 4.0	Good
RMSEA	0.068	Below 0.01 is good, 0.03-0.08 is acceptable	Good
GFI	0.950	>0.9 is good	Good
NFI	0.954	Perfect fit produce 1	Good
TLI	0.963	Values range between 0-1 is accepted, higher values indicating better fit.	Good
CFI	0.975		Good

Table VI shows the multiple indices of different types to test the goodness-of-fit of this research. Based on the data, p-value of Chi-square result is 0.002, less than the rules of thumb 0.05 which represent the poor fit. P-value represent the significant level. The poor fit means that probability of getting the discrepancy is large. However, the result of p-value might be influenced by the number of sample size. The more sample size, the more difficult to get non-significant Chi-Square. Others indices are considered good still within the rules of thumbs range, it gives adequate evidence of model fit.

After defining adequate model fit on CFA model fit, the next step is the construct validity assessment. Table V depicts the summary of convergent validity. Average percentage of Variance Extracted (AVE) is a summary indicator of convergence [3]. The adequate convergence is defining with the AVE result of 0.5 or higher. Others convergence indicator is CR (Construct Reliability). CR is acceptable if the result is 0.7 or higher. Based on the table V, we can see that the CR and AVE result is adequate convergence and have a good reliability.

TABLE V
CONVERGENT VALIDITY

Construct	Indicators	Factor loading	CR	AVE
eWOM Instagram	EW1 EW2 EW3	0.782 0.861 0.8000	0.856	0.664
Customer	C1 C2	0.808 0.724	0.740	0.589
Purchase Intention	PI1 PI2 PI3 PI4	0.776 0.815 0.850 0.560	0.841	0.576

Table VI explain Discriminant Validity result of the research. Discriminant validity explains the extent to which the distinctiveness level between each construct in the model. The more unique the construct, will give the high discriminant validity. It means the each construct is different and each construct captures some phenomena other measure do not. Based on AVE, MSV and ASV squares, the result is quite good. It means that the construct proposed by researcher is valid, the relationship between each construct considered differ and that the model has no issues.

TABLE VI
DISCRIMINANT VALIDITY

	AVE	MSV	ASV	eWOM Instagram	Customer	Purchase Intention
eWOM instagram	0.664	0.558	0.516	0.815		
Customer	0.589	0.558	0.543	0.747	0.767	
Purchase intention	0.576	0.529	0.502	0.689	0.727	0.759

The result of hypothesis is explained in the Table VII. Based on the measurement of β and p-value the result of hypothesis can be determined. If the p-value is less than β value means the hypothesis is accepted. All of variables are accepted.

Customer is positively correlated to eWOM Instagram with a $\beta=0.747$ (p-value=0.001). It indicates that customer is perceived electronic word-of-mouth through media social Instagram. The next hypothesis, eWOM Instagram is positively correlated to purchase intention with a $\beta=0.330$ (p-value=0.004). It indicates that electronic word-of-mouth which occurs on Instagram leads to purchase intention. The third hypothesis Customer is positively correlated with purchase intention with a $\beta=0.480$ (p-value=0.001). It indicates that customer has a direct relation to purchase intention.

TABLE VII
RESULT OF HYPOTHESIS TEST

		β	P	Result
H1	Cust→eWOM	0.747	***	Accept
H2	eWOM→PI	0.330	0.004	Accept
H3	Cust→PI	0.480	***	Accept

***Significant at 0.001

The relationship between customers to Purchase Intention can be compared in two scenarios. The first scenario is the relationship with mediation variable which is electronic word-of-mouth on Instagram, whereas the second scenario is relationship without mediation variable. Table VIII shows the significant correlation between the two variables. The correlation value of with mediation variable is 0.480, it remains significant. Meanwhile the correlation without mediation variable is increasing to 0.721. Since the value is increase from 0.480 to 0.721 means that the mediation variable is only give partial mediation effect.

TABLE VIII
MEDIATION EFFECT

	With mediation variable	Without mediation variable
Cust→PI	0.480	0.721

V. DISCUSSION AND CONCLUSION

This research investigates the relationship between customer and purchase intention with Electronic Word-of-Mouth (eWOM) on Instagram as mediating variable. The research was focus on the Bandung culinary Instagram account. The research shows that relationship between customer to eWOM, eWOM to Purchase Intention and Customer to Purchase Intentioan are positively correlated. Therefore it can be concluded that the construct model, which proposed by researcher is valid and it is considered with no issue. The Figure 2 depicts the construct model with 3 variables, which are Customer, eWOM (electronic word-of-mouth) Instagram, and Purchase Intention

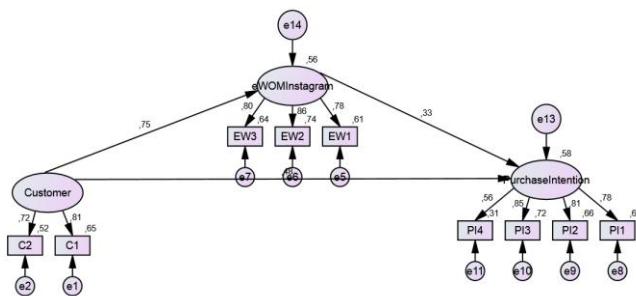


Fig. 2 Structural Model

The mediation effects which occur from eWOM Instagram is the type of partial mediation. The result of assessment with mediation variable is 0.480 it is considered to be significant, therefore the result assessment without mediation variable is 0.721, it is considered to be more significant. From the result we can conclude that the eWOM of Instagram is influencing customer and purchase intention for some aspects, but not all of the relationship between them. There also direct relationship between customer and purchase intention, which in this case it is proved by the higher level in the significant value.

The exact conclusion for this research is as follows:

1. Relationship of Customer and eWOM

According to first hypothesis the result assessment is considered accepted this hypothesis. It means that there is positive relationship between customer and eWOM. If associated with the result of customer behavior in using Instagram, it shows high correlation. Respondents are 100% Instagram user and all of them are following Bandung Instagram culinary account. From all respondents 38% of them are a new followers for Bandung culinary account which has been follow the account for about >1 month. We can conclude that, along with the emergence of culinary account on Instagram people are now started to follow it and make it as the source information for searching culinary places in Bandung.

2. Relationship of eWOM and Purchase Intention.

According to second hypothesis. The result assessment is considered accept this hypothesis. It means that there is positive relationship between eWOM and Purchase intention. If we associated it with the result of customer behavior in using Instagram, it shows high correlation. Within three

months, 47% respondents used Instagram as the preferences in choosing culinary places for about 1-3 times. Moreover, 24% of respondent said their intensity of using Instagram as their preferences is 4-6 time. It seems good evidence to prove the relationship of eWOM and Purchase Intention.

3. Relationship of Customer and Purchase Intention.

According to the third hypothesis. The result assessment is considered accepts this hypothesis. It means that there is positive relationship between Customer and Purchase intention. If we associated it with the result of customer behavior in using Instagram, within three months 10% respondents is never using Instagram as the preferences in choosing culinary. We can conclude that customer can directly move to purchase action without the information which is disseminated through Instagram.

VI. LIMITATION AND FURTHER RESEARCH

This research are done in limited period and there are some boundaries specified for this research. The research focused on Bandung culinary account on Instagram, both for account, which posts photos and information about Bandung culinary places in general or focus on specific provider. The research was limited to male and female respondents from Y generation which are in the range age of 15-35 who was born in the year between 1980-2000s [5]. The respondents must follow minimum one of Bandung culinary Instagram accounts. This research uses quantitative method with statistical analysis used is SEM (Structural Equation Modeling), which takes of minimum 200 respondent.

Since this research is only focusing on Instagram users, along with the trend of social media for further research should consider others platform of social media that might be affecting customer purchase intention. Therefore further research should consider the difference respond of customer based on different gender.

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REFERENCES

- [1] A. Crossman, "Intervening Variable," [Online]. Available: http://sociology.about.com/od/I_Index/g/Intervening-Variable.htm.
- [2] Sekaran, Indonesia, 2012.
- [3] C. Fornell and D. Larcker, "Evaluating Structural Equations Models with Unobservable Variables and Measurement Error," *Journal of marketing research*, pp. 39-50, 1981.
- [4] Y.-W. Fan and Y.-F. Miao, "The Effect of Electronic WOrld-of-Mouth on Consumer Purchase Intention: The perspective of Gender Differences," *International Journal of Electronic Business Management*, Vol. 10, No 3, pp. 175-181, 2012.
- [5] N. Waterworth, "Talented Heads," *Millennials at work*, 9 April 2013. [Online]. Available:

- [http://www.talentedheads.com/2013/04/09/generation-confused/.](http://www.talentedheads.com/2013/04/09/generation-confused/)
[Accessed 15 April 2015].
- [6] R. E. Godsmith and D. Horowitz, "Measuring Motivation for Online Opinion Seeking," *Journal of Interactive Advertising*, vol. 6, no. 2, 2006.
- [7] S. S. Davis, "Chron," Demand Media, 2012. [Online]. Available: <http://smallbusiness.chron.com/five-types-customer-segmentation-10566.html>. [Accessed 15 April 2015].
- [8] P. Turney and M. Litman, "Measuring Praise and Criticism: Inference of Semantic Orientation From Association," *ACM Transaction on Information Systems (TOIS)*, vol. 21, no. 4, pp. 315-346, 2003.
- [9] L. Schiffman and L. Kanuk, *Consumer Behavior*, New Jersey: Prentice Hall, 2000.
- [10] P. Kotler, *Marketing Management: ANalysis, Planning, Implementation, and Control*, 10th edition, New Jersey: Prentice-Hall, 2000.
- [11] S. Bellman, G. Lohse and E. Johnson, "Predictors of Online Buying Behavior," *Communication of the ACM*, vol. 42, no. 12, pp. 32-38, 1999.
- [12] P. Chatterjee, "Online reviews: Do consumers use them?," *Advances in Consumer Research*, vol. 28, no. 1, pp. 129-133, 2001.
- [13] V. M. Sari, "Pengaruh Electronic Word of Mouth di Social Media Twitter Terhadap Minat Beli Konsumen (Studi Kasus Restoran Holycowsteak)," Universitas Indonesia , Jakarta.
- [14] J. A. Chevalier and D. Mayzlin, "The Effect of Word of Mouth on Sales: Online Book Reviews," National Bureau of Economic Research, Massachusetts, 2003.
- [15] R. A. Sari, "Pengaruh Penggunaan Elektronic Word Of Mouth Pad Instagram Terhadap Minat Pembelian (Studi pada Bunch Homemade Kitchen Malang)," Universitas Brawijaya, Malang, 2014.
- [16] N. T. Huong, "Key Factors affecting consumer purchase intention: a study of safe vegetable in Ho Chi Minh City, Vietnam," University of Economics Ho Chi Minh City, Ho Chi Minh , 2012.
- [17] I. Goyette, L. Ricard, J. Bergeron and F. Marticore, "e-WOM Scale: Word-of-Mouth Measurement Scale for e-Services Context," *Canadian Journal of Administrative Sciences*, vol. 27, no. 1, pp. 5-23, 2010.
- [18] J. B. B. Hair, A. Money and P. Samouel, *Essential of Business Research*, Indianapolis: IN:Wiley, 2003.
- [19] Paul and Lee, 2002.