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Apples Supply Chain Strategy Influence on the Consumers to Buy Apples Products

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Abstract **One key aspect of Apple's supply chain is its use of multiple suppliers for the same component. Reviews on this aspect of Apple's supply chain strategy to examine the role that boards and directors can play in enhancing supply chain management and organisational performance that are prioritized in the electronic business competition. Increasing new smartphone vendors and creating smartphone products with advantages over other brands will cause consumers to recognize products according to their needs. This study aims to analyse the power of electronic word–of–mouth (eWOM) on supply chain procedure for trust and its impact on buying the interest of iPhone smartphones among customers. This research used the descriptive method and PLS path analysis. The population in this research was all consumers who are in the Bandung Electronic Center (BEC) with samples collection using an iteration formula. The study samples were 116 respondents. The results of this study explain that eWOM affects the supply chain and brand trust by 16.9% and 11.4% and the rest is influenced by other variables not examined in this study.**

Keywords *— eWOM, supply chain, brand trust, buying interest.*

1.   Introduction

The internet is a medium of sales and promotion that recognized as having a considerable contribution in this instant era. So many products are offered on the internet, ranging from primary needs to tertiary needs. Sales and promotions are not only goods, but sales of services are also carried out in this virtual world. Most companies show an increasing tendency to use social media as effective communication with their consumers. This tool can provide interactive communication between customers and companies without restrictions on time and place as the e-supply chain process. In the e-supply chain process, customers can tell and share experiences with the products they use as if they will become partners of the company so that the company can establish long-term relationships with customers than before. Information technology has brought significant changes to the world including Indonesia. Based on

CIMB data in www.bareksa.com, 2016. Recorded smartphone users in Indonesia have reached 38.6%, an increase in 2014 which was only 28.2%. Some smartphone brands that fill the market in Indonesia include Samsung, Apple, Asus, Lenovo, Huawei, Evercoss, Advan, Xiaomi, Oppo, etc. In 2015, the Indonesian market-leading vendors including Samsung. According to data released by the Gartner institution on global smartphone sales in the first quarter of 2015, Samsung as the market leader with a 20.7% market share followed by Apple 17.7%, Huawei 8.3.6%, Oppo 3.2%, and others. While in 2016 Apple became the leader of 17.9% and only 1% different from Samsung at 17.8%.The numbers of brands that have sprung up make consumers have a lot of choices and consumers' buying interest is getting higher to buy a product. In [1] define buying interest as a person's attitude towards objects that are very suitable in measuring the attitudes of certain categories of products, services, or brands. The presence of new smartphone vendors that emerge and create smartphone products with advantages over other brands will cause consumers to recognize products according to their needs. At present, electronic word of mouth, supply chain, and brand trust are variables that are prioritized in the smartphone business competition. These variables can be used as a material for consideration for purchasing smartphone products [2]. Therefore, this study aims to determine the effect of electronic word of mouth, supply chain, and brand trust and its impact on buying interest. Because the business environment is running more and more, the atmosphere of competition is heating up, this research will contribute to companies to understand the effects of eWOM activities on buying interest, and to guide them more effectively in conducting marketing strategies. This procedure was adapted models from the [3]. Models that have been developed by others require to be tested again in different cultures or product/service categories for their theoretical validity and reliability. Thus, it is

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acceptable that the model is more generalized than before.

Specific objective

One of the secrets to Apples's success is that they've maintained strong relationships with their suppliers. Outsourcing can create supply chain problems however, but there's real evidence to show that outsourcing has allowed Apple to maintain their status as one of the world's leading companies. Apple squeezes its suppliers by making sure that the quotes their suppliers generate are grounded in the truth. Apple's supply chain works so well because it's been built on long-term relationships that work for both Apple and its suppliers. Assessing eWOM on supply chain and brand trust and its impact on buying an interest in iPhone smartphone products of Bandung Elektronik Center (BEC) consumers.

Research Hypothesis

H01: eWOM has a positive effect on Supply Chain of iPhone smartphone products

H02: eWOM has a positive effect on Brand Trust iPhone smartphone products

H03: eWOM has a positive effect on Interest in buying iPhone smartphone products

H04: Brand Trust has a positive effect on Interest in buying iPhone smartphone products

H05: Supply chain has a positive effect on interest in buying iPhone smartphone products

H06: eWOM has a positive effect on Interest in buying iPhone smartphone products that are mediated by supply chain

H07: eWOM has a positive effect on Interest in buying iPhone smartphone products mediated by Brand Trust

Statement of the Problem

The more sophisticated information technology makes a community dependent on using smartphones as a means of information that has many features. Thus, causing competition among smartphone companies. Marked by the emergence of new brands from smartphone companies making people selective in choosing smartphone brands. The brands that lead in smartphone sales today are Samsung and iPhone. This study replicates research from [4], which found that eWOM had a positive effect on Supply chain, Brand Trust, and Interest in Purchasing smartphone products. Also, there is also a positive influence between Supply chain, Brand

Trust, and Interest in Buying smartphone products, as well as a positive influence between Brand Trust and Interest in Buying smartphone products. Also, in previous studies, it was also found that Supply chain and Brand Trust were not the perfect mediation between eWOM and Buying Interest. However, the position of these two mediations can increase the total influence of eWOM on Buying Interests.

2.   Theory Review

In the world of marketing, interpersonal communication between consumers can be in the form of delivering WOM messages. In [5] define WOM as informal personal communication to individuals between communicators (who are judged not to be part of commercial marketers/sources) and recipients regarding products, brands, services, and companies. WOM communication occurs when consumers provide suggestions or opinions and share experiences with other consumers about a product, service, or brand [6]. WOM information is included in the category of informal communication with characteristics conveyed by informal sources or not conveying messages on behalf of the organization/company. The form of WOM communication itself can be in the form of providing information or advice about products by parents or friends. Because seeing that the sender of the message is judged not to get any benefit related to the decision of the recipient of the message later, then the informal communication of Word of Mouth is considered more persuasive [7]. Although the world of marketing communications continues to develop with a variety of new technologies and methods, it turns out that the study of WOM has not been abandoned. The importance of the study of WOM communication in the marketing world is indicated by the increasing number of studies on WOM published in various major business journals. In his research, [8] found that the first article on the topic of Word of Mouth was published in a major business journal in 1997 and the number of subsequent studies has continued to increase since then. In [9] conducted a study that discussed the motivation of consumers to carry out eWOM communication. According to him, eWOM is a positive or negative statement made by potential consumers, real consumers, or former consumers about a product or company that can be accessed by many people or institutions

through the internet. In this study, the integration of traditional WOM motifs with the characteristics found in eWOM was integrated. EWOM indicators according to [10]: (i) Platform assistance; (ii) Venting negative feelings; (iii) Concern for other consumers; (iv) Extraversion/positive self-improvement; and (v) Helping the company 6) Advice seeking.

Brand trust defined as the security that the product user has, in his interactions with a brand based on the perception that the brand can be trusted and takes into account the interests and welfare of consumer. Brand trust is a consumer's willingness to generally depend on the brand's ability to describe the function of its product [11]. Brand trust is something that can be trusted and reliable [12]. Willingness is not too influential, because the argument believes if a consumer wants to depend on the brand.

The supply chain of a company can influence long-term profits, encourage consumers to buy products at premium prices, increase stock selling prices, competitive advantage, and marketing success [11], WOM can have a very strong influence on consumer perceptions of a product. Trust in the brand is the willingness of consumers to trust the brand with all the risks because of the expectations promised by the brand in providing positive results [10].

Buying interest is a psychological force that exists within an individual, which affects taking action [9]. A product is said to have been consumed if the consumer has decided to buy it — the decision to buy influenced by the value of the product being evaluated. If the benefits felt are higher than the sacrifice to get it, then the drive to buy is higher. Conversely, if the benefits are smaller than the sacrifice, usually the buyer will refuse to buy and generally will switch to evaluating other similar products

3. Research Design

This study designed using Quantitative analysis. It involved descriptive statistic and inferential statistic. According to [6], descriptive studies have several advantages such as; helps in understanding the characteristics of a group in certain situations, helps in systematic thinking about aspects in certain situations. It also offers ideas for further investigation and research and helps in making certain simple decisions. [7], say that descriptive

research is to describe the characteristics of an object, person, group, organization, or environment. In other words, descriptive research tries to "draw pictures" of certain situations by answering who, what, when, where and how. The quantitative analysis used in this study is path analysis and SmartPLS software version 3.0. PLS (Partial Least Square) is a variant-based structural equation model (SEM) analysis that can simultaneously test measurement models while testing structural models. The measurement model is used to test validity and reliability, while the structural model is used to test causality (testing hypotheses with prediction models).

Apples supply chain strategy is based on the following to be agile and applicable in the world [4]:

• focusing on making great products using ground breaking innovation

• supplying products that are not seasonal and have a life cycle of more than 12 months

• reducing the number of warehouses to one centralized location in California

• synchronizing data between the central warehouse and its own stores and customers, making operations more efficient and cost-effective

• outsourcing manufacturing and as a result reducing the manufacturing cycle time

• reducing the number of key suppliers involved in manufacturing, shipping and storing

• requesting price reductions and asking suppliers to relocate closer to Apple's factories

• reducing the number of sku's to approximately 26,000, to simplify and help develop more accurate demand forecasts

Target Population

The population is a generalization area consisting of objects or subjects that have certain qualities and characteristics set by researchers to be studied and then conclusions drawn [5]. In this study, the population is the consumer because the number of population to be studied is not identified (unidentified) so in conducting this study, the authors take samples. Understanding the sample is part of the number and characteristics possessed by the population [3].

Sampling Frame

The samples in this study were Consumers who are in the Bandung Electronic Center (BEC). Samples in this study used nonprobability sampling

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techniques, namely sampling techniques that did not provide equal opportunities/chances for each element or member of the population to be selected as samples. Because the population is unknown, the sample was taken by incidental sampling method, namely the technique of determining the sample based on chance, that is, anyone who accidentally/incidentally met with the researcher could be used as a sample, if the person who happened to be found was suitable as a data source. The sample that will be chosen by the author as the source of data needed for this research is Consumers who are in the Bandung Electronic Center (BEC) who use iPhone smartphones. Because of the unknown population size, the determination of the number of samples is done using the iteration formula outlined by Sitepu which can be taken through several calculation stages. (a) Determining the price estimate of the smallest coefficient of correlation between independent variables and dependent variables; (b) Determining the real level and test power; (c) Determining the sample size iteratively If the minimum iterative sample size is first and second is the value until the unit number is the same, the iteration stops. If not the same, the third iteration needs to be done by using a formula such as the second iteration. In this study determined = 0.05, = 0.95, and = 0.30 from the normal distribution table obtained = 1.645 and = 1.645.

In the first iteration using the formula:

$$n_1 = \frac{Z_{1-\alpha} + Z_{1-\beta}}{(U_\rho)^2} + 3 \qquad (1)$$

Meanwhile:

$$U_{p1} = \frac{1}{2} Ln\left[\frac{1+\rho}{1-\rho}\right] \qquad (2)$$

Where + is a constant obtained from a normal distribution. In the second iteration using the formula:

$$n_2 = \frac{(Z_{1-\alpha} + Z_{1-\beta})^2}{(U_\rho)^2} + 3 \quad (3)$$

Meanwhile:

$$U_{p2} = \frac{1}{2} Ln\left[\frac{1+\rho}{1-\rho}\right] + \left[\frac{\rho}{2(n-1)}\right] \quad (4)$$

To calculate samples, using equation (2) obtained value =0.309519604, and using equation (1) obtained a value =115.9836173 116 (rounded up).

To calculate $U\rho_2$, done using equation (4) obtained value =0.310823573, and by using equation (3) a value is obtained = 115.6185624 116 (rounded up).

Because n1 and n2 have reached the same value of 116, the minimum sample size is 116 consumers who are in BEC; the study sample was set to 116 respondents.
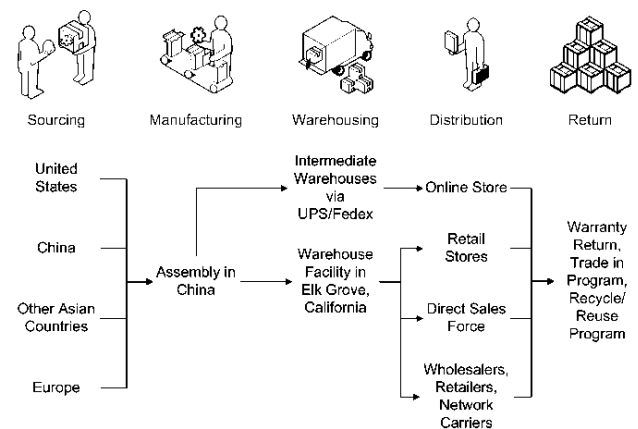

Figure 1: apples supply chain structure

4.   Results

Before embarking on descriptive and inferential statistics, we reported the demography profile of respondents were participated in this study. The result of respondent distribution following the data collected as seen in the Table 2 as below:

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Table 2. Characteristics of Respondents

I. Demography	II. Category	III. Frequency	IV. Percentage
V. Gender	Male	55	47%
	Female	61	53%
VI. Age	< 17 years old	13	11%
	18 – 25 years old	30	26%
	26 – 30 years old	35	30%
	>30 years old	38	33%
VII. Occupation	Private	45	39%
	College student	61	52%
	Others	10	9%

Validity Test and Data Reliability

Convergent validity of the measurement model could be examined from the correlation between the indicator score and the variable score. The indicator considered valid if it has the AVE value above 0.50 or all variable outer loading dimensions have a loading value higher than 0.50. The the results of validating the data using SmartPLS 3.0 software can be seen as follows:

Table 3. Outer Loadings

Items	Supply chain	Brand Trust	Buying Interest	eWOM
BI1	0.651			
BI2	0.744			
BI3	0.773			
BI4	0.636			
BI5	0.803			
BI6	0.797			
BI7	0.81			
BI8	0.849			
BI9	0.711			
BI10	0.704			
BT1		0.892		
BT2		0.76		
BT3		0.847		
BT4		0.83		
BT5		0.883		
MB1			0.748	
MB2			0.771	
MB3			0.797	
MB4			0.843	
MB5			0.835	
MB6			0.595	
MB7			0.697	
MB8			0.59	
eWOM1				0.623
eWOM2				0.528
eWOM3				0.603
eWOM4				0.691
eWOM5				0.761
eWOM6				0.661
eWOM7				0.759
eWOM8				0.778
eWOM9				0.845
eWOM10				0.786
eWOM11				0.749
eWOM12				0.708
eWOM13				0.512

Reliability testing is used to test the accuracy of the results of questionnaire measurements that are closely related to trust problems. A test level is said to have a level of trust if the test gives the right results, a variable is said to be sufficiently reliable if the variable has the value of construct reliability and Cronbach Alpha is greater than 0.6. The following are the results of the reliability test in the study:

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Table 4. Construct Reliability

Variable (s)	Cronbach alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Supply chain	0.915	0.930	0.927	0.563
Brand Trust	0.899	0.919	0.925	0.712
Buying Interest	0.881	0.893	0.905	0.548
eWOM	0.911	0.917	0.925	0.512

Table 4 indicates that the value of Composite Reliability and Cronbach Alpha is greater than 0.6, so it can be concluded that all variables in this study have met the reliability requirements.

Measurement Model (Inner Model)

In assessing the model with PLS it starts by looking at the R-square for each latent dependent variable, here is the R square value of the dependent latent variable:

Table 5.R Square Variable Dependent

Variable (s)	R Square	RSquare Adjusted
Supply chain	0.169	0.162
Brand Trust	0.114	0.106
Buying Interest	0.324	0.306

Table 5 shows the R Square value of eWOM's research variable on Supply chain (BI) is 0.169; this proves that BI can be explained by eWOM variables by 16.9%, while the rest is influenced by other variables not examined in this study. Whereas eWOM for Brand Trust and Purchase Interest is influenced by 11.4% and 32.4% respectively, while the rest is influenced by other variables not examined in the research model.

significance level obtained from the comparison of t count values with the t table value which is equal to 1,980. Following are the results of hypothesis testing output using SmartPLS 3.0:

5.   Research Hypothesis

Testing the hypothesis in this study is based on the values found in the structural model analysis; the
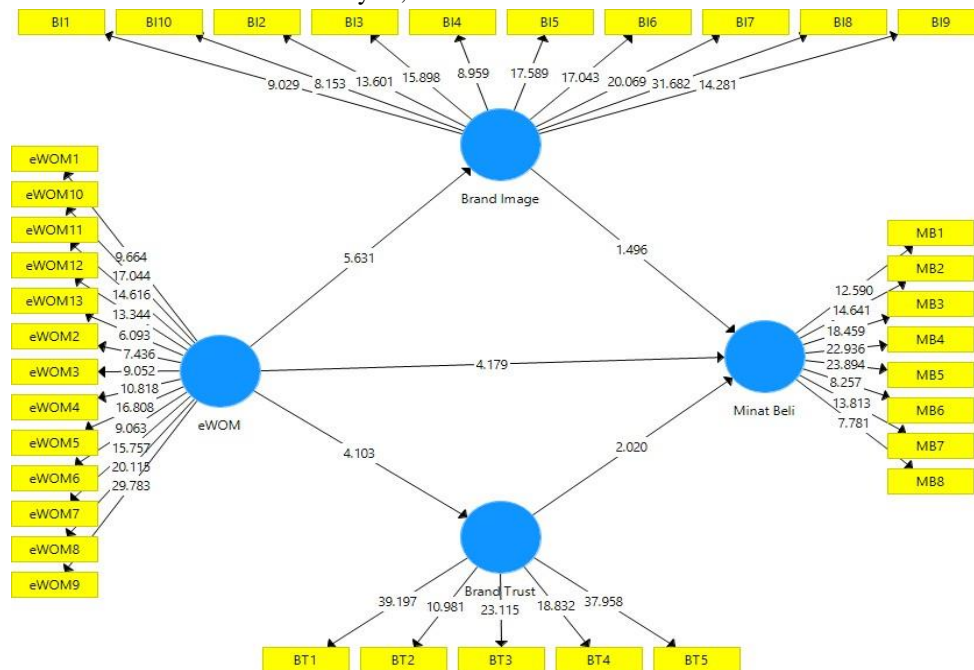

Figure 2. Path Diagram Testing the Research Hypothesis

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Table 6. Path Coefficient

Path Analysis	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
eWOM -> Supply chain	0.419	0.435	0.074	5.631	0.000
eWOM -> Brand Trust	0.336	0.349	0.082	4.103	0.000
eWOM ->MinatBeli	0.493	0.505	0.064	7.651	0.000
Supply chain ->Buying interest	0.168	0.166	0.112	1.496	0.135
Brand Trust ->Buying interest	0.205	0.217	0.102	2.020	0.044

Table 7. Specific Indirect Effect

Path Analysis	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
eWOM -> Supply chain ->Buying interest	0.070	0.072	0.052	1.360	0.174
eWOM -> Brand Trust ->Buying interest	0.069	0.077	0.044	1.556	0.120

Table 6 show that the eWOM variable t value of the Supply chain is 5,631 greater than the t table value with a P value of 0.000 below 0.05. It proves that eWOM has a positive and significant effect on Supply chain (Hypothesis 1 accepted) According to Chatterjee (2001), "this kind of message can effectively reduce risk and uncertainty is recognized by consumers when purchasing products or services, so that purchase intention and decision-making can be further influenced". This type of message (e-WOM) can effectively reduce the risks and uncertainties that consumers know when buying products or services so that their purchase intentions and decision making can be more influenced. Likewise in the research of Semuel and Lianto (2014), stated that eWOM functioned as one of the ways of marketing so that consumers could immediately understand and be clear about a brand of smartphone products. For this reason, a variety of useful information and various opinions from other people that are positively related to a brand, eWOM can encourage the emergence of Supply chain. So that eWOM has a positive strength that is the choice of many companies in marketing their products using internet media.

Further, the eWOM variable t value for Brand Trust is 4.103 greater than the t table value with a P value of 0.000 below 0.05; this proves that eWOM has a positive and significant effect on the Brand Trust (Hypothesis 2 is accepted). It illustrates that iPhone smartphones have good trust in consumers' hearts, with eWOM they can more easily see and review iPhone smartphones both positive and negative impressions as product information. It is in line with the research of Semuel and Lianto (2014), eWOM proved to affect Brand Trust. When service meets expectations, trust in the brand is built. For this reason, the supply chain obtained by consumers has an impact on trust because when the brand can create trust in the services expected by consumers.

The eWOM variable t value for Purchase Interest is 7.651 greater than the t table value with a P value of 0.000 below 0.05. It proves that eWOM has a positive and significant effect on buying interest (Hypothesis 3 is accepted) Based on the previous testing that when consumers already have a picture or information about the brand and have good trust in the iPhone smartphone then they will directly have an interest in buying. WOM communication occurs when consumers provide suggestions or opinions and share experiences with other consumers about a product, service, or brand (Schiffman and Kanuk, 2010). Semuel and Lianto (2014) stated that iPhone Consumers have hopes to get a guarantee of satisfaction when using the product, even though there is a possibility of the risks they receive. With the existence of good brand trust in a product, it will increase consumer buying interest. A product with a brand that has been trusted, consumers will tend to repeat purchases on that brand.

Table 6 shows that the t value of the Supply chain variable on Purchasing Interest is 1.496 smaller than the value of t table with a P value of 0.135 above 0.05. It proves that Supply chain does not have a positive and significant effect against buying interest (Hypothesis 4 rejected) this is contrary to the research of Semuel and Lianto (2014), Supply chain proved to have a significant effect on Buying Interest, meaning that an item with a good or good brand, consumers tend to repeat purchases on that brand compared with other brands. For this reason, the high and low supply chain has an impact on buying interest. The results of the analysis show that a good Supply chain on

smartphone products affects consumer buying interest. It is because among students even though the supply chain is good, they do not necessarily have the intention to buy because there are some things that they cannot fulfill, such as the price of a high iPhone smartphone and some features that they consider unfamiliar with their needs. It is what indicates that there is no influence between supply chain and buying interest.

The result of the analysis shows that the t value of Brand Trust variable on Purchase Interest is 2.020 greater than the value of the t table with a P value of 0.044 below 0.05, this proves that the Brand Trust has a positive and significant effect on Buying Interest (Hypothesis 5 is accepted). The results of this study are in line with the previous research of Semuel and Lianto (2014), which items with trusted brand consumers tend to repeat purchases on that brand compared to other brands. For this reason, the high and low brand trust has an impact on buying interest. The results of the analysis show that good Brand Trust in smartphone products affects consumer buying interest. It is because consumers have believed in a brand, so the consumer will buy back the brand that he believes. Trust in the brand if denied by the brand owner will be difficult for consumers to be interested in buying back the product.

Besides that, we also tested indirect effect (see Table 7), the result of analysis indicates that eWOM variable t value of Purchase Interest mediated by the supply chain is 1.360 smaller than the t table value with a P value of 0.174 above 0.05. The results of this study explain that it turns out the supply chain variable cannot mediate eWOM's influence on indirect buying interest. Further, the t value of the eWOM variable on the Purchase Interest mediated by the Trust brand is 1.556 smaller than the value of the t table with a P value of 0.120 above 0.05 The results of this study explain that the variable Trust brands cannot mediate eWOM's influence on indirect buying interest.

6. Conclusions

The key point in Apple's supply chain is its use of multiple suppliers for the same component. Reviews on this aspect of Apple's supply chain strategy to examine the role that boards and directors can play in enhancing supply chain management and organisational performance. The role of eWOM can be used as a force in marketing at present, as evidenced by testing the hypothesis that eWOM affects the supply chain and Brand Trust so that it will directly affect the Buying Interest. However, supply chain and Brand Trust cannot be used as mediating variables because it indirectly does not affect Buying Interest.

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