



FACTORS INFLUENCE INTENTION TO BUY SMARTPHONE: THE ROLE OF E-WOM

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ABSTRACT

The research explores and measures the factors that affect the intention to purchase the smartphone in Ho Chi Minh City. The authors send the online survey questionnaires and collected 246 valid respondents. The research uses Exploratory Factor Analysis (EFA) to explore the scale of the factors that influence the intention to buy a smartphone. Besides, the result from the multiple regression shows that the aesthetic, price, brand, product feature, social influence, and Electronic-Word-of-mouth are a positive effect on the intention to purchase a smartphone. E-WOM has the most significant impact on buying intention, while the price has the least impact. What is more, the research suggests some recommendations to businesses to attract more customers to purchase smartphones.

Key words: Aesthetic; Price; Brand; Product feature; Social influence; Electronic-Word-of-mouth.

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1. INTRODUCTION

Today, technology 4.0 has become a robust development; technology devices are increasingly advanced; especially smartphones. The smartphone has outstanding features and is a miniature personal computer; it can help people use features such as making calls, taking pictures, checking emails, researching and referencing documents, connecting to the Internet for entertainment, etc. Therefore, owning a Smartphone to serve daily needs in life is a necessity.

According to Kaushal and Kumar (2016), social influences and compatibility factors significantly influence the intention of buying a smartphone. Meanwhile, research on Chinese

students' intention to buy smartphones has resulted in compatibility affecting purchase intent (Yu and Lee, 2014). Besides, in recent years, e-commerce websites as well as social networks have strongly developed to help users find information easily. Moreover, web 2.0 strongly supports information for users through evaluation of users of previous products. This suggests that the influence of electronic word of mouth (eWOM) directly affects consumer attitudes, intentions and behaviors (Zhu and Zhang, 2010). Finally, 90% of consumers think that online reviews directly influence their purchasing decisions. On that basis, this paper explores the scale and measures the influence of factors on the intention to buy a Smartphone; At the same time, the research will explore the role of electronic word-of-mouth in shaping consumers' intention to purchase smartphones.

2. LITERATURE REVIEW

2.1. Smartphone

According to Cassavoy (2012), a smartphone can be defined as a device that allows users to make phone calls; and, at the same time, has many features that will enable users to perform certain previously impossible activities such as sending and receiving email, modifying office documents. The smartphone is configured by an operating system with advanced computing capabilities and connectivity. Generally, smartphones have sensors, large and high touch screens, pixel cameras with lots of features and applications. Most people use apps such as internet browsing, email, navigation, listening to music, searching for documents, reading the information, monitoring health, etc. Features and applications make it easier for people to live their daily lives, at home or work, or for entertainment.

2.2. Intention

According to Krueger (1993), to make a decision, an individual must perceive that matter before committing it. That perception has a decisive role in doing or not to do. Intention represents the level of commitment to the behavior that will be undertaken in the future. Through a variety of studies, the intention is thought to be a precondition of intended behavior (Krueger et al., 2000). That intent is the best prediction for the behavior to be taken (Luthje and Franke, 2004). According to Ajzen (1991), the intention is a motivating factor; it motivates an individual to be willing to take action. When people have a strong intention to engage in a behavior, they are more likely to commit it.

3. HYPOTHESIS DEVELOPMENT AND PROPOSED MODEL

3.1. Aesthetics

Aesthetics can directly or indirectly affect the intention to purchase (Toufani et al., 2017). Aesthetics can indirectly link to the intention of purchasing goods through factors that determine the adoption of technology (Van der Heijden, 2003). As an aspect of overall value, Turel et al. (2010) show that the indirect linkages of aesthetics intended to use virtual artifacts such as ringtones. Gallarza and Gil Saura (2006) applied aesthetics to understand how it affects satisfaction and intention to purchase in tourism. Aesthetics are also used to measure its impact on customer decisions when shopping online (Mathwick et al., 2001). Also, aesthetics are directly related to purchasing intentions (Lee and Koubek, 2010; Tzou and Lu, 2009).

H1: Aesthetics has a positive influence on customers' intention to buy the smartphone.

3.2. Price

The product price is the expected amount, required, or given to pay for the product (Swani and Yoo, 2010). There are many valuation methods, such as mark pricing, target payback pricing, value pricing, cost pricing, and promotional pricing (Kotler and Keller, 2012). If the discount rate is low, it should be presented according to its value; whereas if the discount rate is high, it should be presented as a percentage so that customers intend to buy higher. Product prices influence consumers' purchasing decisions and profit margins (Bloch, 1995; Chow et al., 2012). The number of consumers using smartphones in Vietnam is increasing day by day. The price of a mobile phone depends on the income of the consumer so that the manufacturer can offer the most suitable price to sell the smartphone. Consumers can spend a lot of money to own the smartphone and pay attention to product features.

H2: Price has a positive influence on consumers' intention to buy the smartphone.

3.3. Brand

A brand is the most valuable asset for a company. The brand is not just a name and logo. It is also a factor in the relationship between a company and a customer (Kotler and Armstrong, 2016). The brand needs to be firmly imprinted in consumers' minds as it positively affects the intention to buy a smartphone; in addition, the famous brand influences the majority of consumers. Through the brand, consumers can recognize a product, evaluate quality, lower the risk of the purchase, and gain particular experience and satisfaction from product differentiation. According to Grewal et al. (1998), the better the brand, the more consumers will recognize its quality. Consumers are often limited in the amount of time and product knowledge they have to make the purchasing decisions when faced with similar products. Therefore, the brand is commonly used as a motivating factor for purchasing (Das, 2012; Osman et al., 2012).

H3: The brand has a positive influence on consumers' intention to buy the smartphone.

3.4. Product Feature

A feature is a product attribute intended to satisfy consumers' needs and desires through ownership of the product. Product features include hardware and software. Specifically, hardware is the description for a physical touch device. Smartphone hardware is the body, size, and weight of the phone. Color and design are also considered hardware because it is the physical appearance of a smartphone. Software meanwhile is the general term for computer programs. Smartphone software is the operating system, storage memory, or applications that run the phone. According to a study, the factor that affects people who get smartphones is that software includes 33%, while hardware only has 17.6%. Product features will give customers a smartphone experience. Based on the experience of the features, users feel satisfied and lead to the intention to buy a smartphone (Ayodele and Ifeanyichukwu, 2016; Chow et al., 2012; Osman, 2012).

H4: Product features positively influence consumers' intention to buy the smartphone.

3.5. Social Influence

Consumer behavior is influenced by social factors, such as small groups of consumers, families, social roles, and mental states (Kotler and Armstrong, 2016). In the decision-making process for buying products, consumers tend always to be influenced by social groups. Depending on different factors, consumers can listen and believe in different social groups, perhaps those who are more professional in specific fields. In buying a smartphone, social influence can come from friends, colleagues, family members. Smartphone users use the phone to keep contact with their friends, colleagues and families in the social network sites.

This reveals that people will be influenced by, peers and families while making any buying decision (Chow et al., 2012; Ayodele and Ifeanyichukwu; 2016).

H5: Social influence has a positive influence on consumers' intention to buy the smartphone.

3.6. Electronic Word-of-mouth

Electronic word-of-mouth is a key driver in shaping consumer attitudes and directing intentions (Chevalier and Mayzlin, 2006; Xia and Bechwati, 2008). These days, with the spread of the internet all over the world, interpersonal communication has been profoundly reshaped from face-to-face communication to a more virtual communication called electronic word-of-mouth where consumers had a great opportunity to share information about their consumption experiences and spread tips regarding products and brands using social networking platforms and consumer reviews (Godes and Mayzlin, 2004; Brown et al., 2007; Xia and Bechwati, 2008). Customers can be considered when collecting information before buying (Adjei et al., 2009; Zhu and Zhang, 2010), and lead to consumer attitudes. E-WOM affects brand perception, as well as purchase intention (Lin, 2013).

H6: Electronic Word-of-mouth has a positive influence on consumers' intention to buy the smartphone.

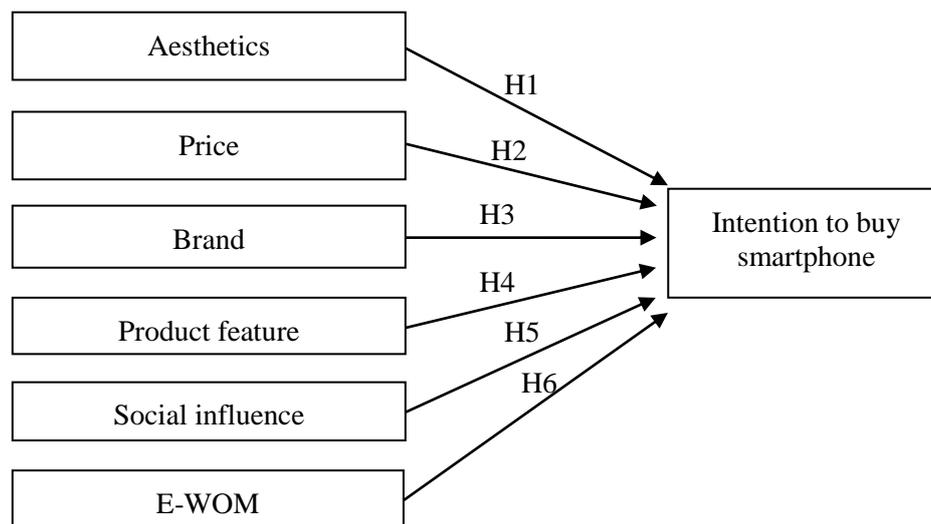


Figure 1 Research model

4. METHODOLOGY AND SCALES

4.1. Data Collection and Methodology

The authors send the online questionnaires link via an online platform such as Facebook, Messenger, Viber, SMS, Email, Zalo on June 2020 for people to do online surveys about the effects of aesthetic, price, brand, product feature, social influence, and Electronic-Word-of-mouth on intention to buy the smartphone. The authors distributed the online surveyed questionnaires until collecting 300 online surveyed questionnaires, and the authors used 246 valid respondents for analysis. The methods that apply in this research are EFA, Cronbach Alpha, and regression.

4.2. Measurement Scale and Source

Table 1 Measurement scale and source

No.	Code	Scale	Source
AESTHETICS			
1	AE1	Smartphone should have many different color options.	Toufani et al., 2017; Lee and Koubek, 2010; Tzou and Lu, 2009
2	AE2	The feeling of touching the smartphone surface (such as sensitivity) is essential to me.	
3	AE3	Operation on a smartphone is easy and straightforward.	
4	AE4	Smartphone aesthetics makes much sense to me like its technology.	
5	AE5	I like the style (square, softly rounded corners) my smartphone.	
6	AE6	The smartphone's appearance can be outdated quickly (style, weight and screen size).	
PRICE			
7	PR1	The current price of a smartphone is fit with my expenditure.	Grewal et al., 1998; Chow et al. (2012); Das (2012); Ayodele and Ifeanyichukwu, 2016
8	PR2	Smartphone prices are suitable.	
9	PR3	The price of using the service packages on smartphones is reasonable	
10	PR4	I compare the prices of many smartphone brands before I decide to buy	
11	PR5	The low price of some smartphone brands suggested that they may have some risks, such as low quality.	
12	PR6	I am willing to buy smartphones despite the higher price.	
BRAND			
13	BR1	I choose this brand due to its good brand quality	Chow et al. (2012); Osman et al. (2012); Ayodele and Ifeanyichukwu, 2016
14	BR2	The brand enhances my social status.	
15	BR3	The brand is an attraction for me to buy a smartphone.	
16	BR4	A Smartphone brand name is my top priority when making purchasing decisions.	
17	BR5	I will review the brand reputation of the smartphone before buying it.	
PRODUCT FEATURE			
18	PF1	I am interested in the operating system of the smartphone	Ayodele and Ifeanyichukwu, 2016; Chow et al. (2012)
19	PF2	Color, design, and weight affect your smartphone purchase intent	
20	PF3	The device's storage memory affects the intention of buying a smartphone	
21	PF4	Camera and processor affect the intention to buy a smartphone	
22	PF5	There is a significant difference between the response of male and female consumers to product features	
SOCIAL INFLUENCE			
23	SI1	Family members influence the intention to use a smartphone	Chow et al. (2012); Kaushal and Kumar (2016); Malviya et al. (2013)
24	SI2	Colleagues, friends influence the intention to use a smartphone	
25	SI3	Communication and advertising affect the decision to use a smartphone	
26	SI4	There are significant differences between the responses of male and female consumers concerning social influence.	
ELECTRONIC WORD-OF-MOUTH			
27	eWOM1	Famous and branded websites are reliable.	Brown et al., 2007; Xia and Bechwati, 2008; Adjei et al., 2009; Zhu and Zhang, 2010
28	eWOM2	I regularly collect information from online consumers who review products before I buy specific products/brands.	
29	eWOM3	If I do not read the reviews online, I will feel worried about the decision to buy.	
30	eWOM4	I confidently make a buying decision when I read online product reviews.	
INTENTION TO BUY SMARTPHONE			
31	IB1	I intend to buy a smartphone soon.	Chow et al. (2012); Osman et al. (2012); Ayodele and Ifeanyichukwu, 2016
32	IB2	Using a smartphone to solve my personal needs and support in my work or study.	
33	IB3	I will tell my friend about the smartphone that I am using.	

5. RESULTS AND DISCUSSION

5.1. Cronbach's Alpha Test Results

Table 2 Result of Cronbach's Alpha test

Scale	Cronbach's Alpha	Scale	Cronbach's Alpha
AE	0.898 (after eliminating DE1)	BF	0.838
PR	0.857	SI	0.897
BR	0.898	eWOM	0.887
IB	0.755		

5.2. Results of EFA Analysis

5.2.1. Results of EFA analysis of the independent variable scale

The results of KMO (Kaiser-Meyer-Olkin) has value = 0.829, and the results in Bartlett's Test has Sig value. = 0,000 < 0.05, so factor analysis is very consistent with data, and observed variables are correlated with each factor group.

Table 3 Result of EFA analysis

Concepts	Items	Component					
		1	2	3	4	5	6
Price	PR1	0.839					
	PR5	0.826					
	PR6	0.760					
	PR3	0.734					
	PR4	0.688					
	PR2	0.610					
Aesthetics	AE6		0.865				
	AE5		0.858				
	AE2		0.834				
	AE3		0.819				
	AE4		0.748				
Brand	BR5			0.853			
	BR2			0.818			
	BR1			0.803			
	BR4			0.788			
	BR3			0.759			
Social Influence	SI1				0.883		
	SI4				0.873		
	SI3				0.847		
	SI2				0.819		
Product function	PF5					0.846	
	PF3					0.813	
	PF2					0.771	
	PF4					0.712	
	PF1					0.683	
Electronic Word-of-mouth	eWOM1						0.871
	eWOM2						0.844
	eWOM4						0.839
	eWOM3						0.764
KMO		0.829 (sig.=0.000)					
Eigenvalues		1.928					
Total Variance Explained		69.461					

Total Variance Explained get 69,461% > 50% and eigenvalue equal 1,928 > 1, meets the standard, that means observed variables explain 69,461% change of factors in the model and the five factors drawn mean the best information summary. Besides, the EFA results for the Rotated Component Matrix's independent variables show that the factor loading factors of the observed variables are all qualified with Factor Loading greater than 0.5. These factors meet the requirements when analyzing linear multivariate regression.

5.2.2. Results of EFA analysis of the dependent variable scale

The EFA analysis results for the dependent variable show that KMO (Kaiser-Meyer-Olkin) has value = 0.691, so factor analysis is consistent with real data. Bartlett's Test results are valid Sig. = 0.000 < 0.05; the observed variables are correlated with each other in the dependency factor. Also, Total Variance Explained of satisfaction factor is 67.252% > 50%, which meets the permitted standard.

5.3. Regression Analysis

Table 4 Result of multivariate regression

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity		
	Beta	Sd. Error	Beta			Tolerance	VIF	
1	(Constant)	-.419	.205		-2.041	.042		
	AE	.247	.039	.266	6.299	.000	.811	1.233
	PR	.123	.032	.156	3.800	.000	.859	1.164
	BR	.236	.038	.274	6.237	.000	.752	1.330
	PF	.100	.036	.118	2.783	.006	.804	1.243
	SI	.230	.041	.228	5.602	.000	.876	1.142
	eWOM	.215	.031	.285	7.011	.000	.878	1.139

The analysis results show that the VIF is very small, all value is from 1,139 to 1,330 is less than 2. The regression does not violate the hypothesis of multi-collinear phenomena; the model has statistical significance. From the results of considering the significance level of the independent variables in the regression model, it shows that all five factors affecting consumer behavior are factors because of the significance level Sig < 0.05. The regression equation has the following form:

$$IB = -0.419 + 0.247*AE + 0.123*PR + 0.236*BR + 0.100*PF + 0.230*SI + 0.215*eWOM$$

6. CONCLUSION

The first factor that positively influences consumers' intention to buy a smartphone is aesthetic. businesses can design more personalized products, allowing companies to capture the value of customers through unique visual. According to Moon et al. (2013), successful product development focused on a unique visual design can also reduce advertising costs. The company should focus on the properties of aesthetics that strongly affect the intention to buy smartphones to facilitate the promotion and selection of business strategies. The second factor that positively influences the consumer's intention to buy a smartphone is the brand. Vietnamese consumers can now say that using smartphones is increasingly popular; owning a branded smartphone is also an important issue. Famous brands, good brand quality, and a loyal brand are the top factors for consumers to make a. Businesses need to focus more on brand image. It is necessary to devise strategies to strike consumers, especially consumers, who will own a smartphone with a beautiful design, a famous brand, and an affordable price.

The third factor that positively influences the consumer's intention to buy a smartphone is the price. Consumers are quite sensitive subjects because the number of part-time jobs to increase income is not too high. So if smartphones are expensive, they can hardly afford them. Businesses can create favorable conditions for consumers by offering products of medium price range to consumers that they can pay for themselves. It can be said that the price significantly affects the intention of buying the smartphone. The fourth factor is Product features also positively influence consumers' intention to buy smartphones. New designs, models, operating systems, cameras, etc. are of interest when it comes to buying a smartphone. Businesses need to come up with strategies to improve product features and upgrade software and hardware so that the Smartphone will attract attention and promote consumers' buying intentions. The fifth and final influence is social influence and Electronic Word-of-mouth. When the customer makes an intention to buy, consumers will read the comments/reviews on websites, forums, blogs, especially listen to consultations from family and friends to make sure your purchase intent is correct. Businesses need to link with newspapers and websites to enhance the brand and read to consumer reviews to overcome weaknesses and promote its strengths.

REFERENCES

- [1] Adjei, M. T., Noble, S.M. and Noble, C. H. (2009), The influence of C2C communications in online brand communities on customer purchase behavior. *Journal of the Academy of Marketing Science*, 38 (5), 634-53.
- [2] Ajzen, I. The theory of planned behaviour. (1991), *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- [3] Ayodele, A. A. and Ifeanyichukwu C., (2016). Factors Influencing Smartphone Purchase Behavior among Young Adults in Nigeria. *International Journal of Recent Scientific Research*, 7 (9), 13248-13254.
- [4] Bloch, P. H. (1995), Seeking the ideal form: product design and consumer response. *Journal of Marketing*, 59 (3), 16-29.
- [5] Brown, J., Broderick, A. J. and Lee, N. (2007), Word of mouth communication within online communities: conceptualizing the online social network. *Journal of Interactive Marketing*, 21 (3), 2-20.
- [6] Cassavoy, L., (2012), Retrieved from About.com Need know Accomplish: [www.about.com: http://cellphones.about.com/od/smartphonebasics/a/what_is_smart.htm](http://cellphones.about.com/od/smartphonebasics/a/what_is_smart.htm).
- [7] Chevalier, J. A., & Mayzlin, D. (2006), The Effect of Word of Mouth on Sales: Online Book Reviews. *Journal of Marketing Research*, 43 (3), 345–354.
- [8] Chow, M.M., Chen, L.H., Yeow, J.A. & Wong, P.W. (2012), Conceptual Paper: Factors Affecting the Demand of Smartphone among Young Adult”, *International Journal of Social Science, Economics and Art*, 2 (2), 44-49.
- [9] Das D. (2012), An Empirical study of factors influencing buying behavior of Youth consumers towards mobile handsets: a case study in Coastal District of Odisha”, *Asian Journal of Research in Business Economics and Management*, 2 (4), 68-82.
- [10] Gallarza, M. G. and Gil Saura, I. (2006), Value dimensions, perceived value, satisfaction and loyalty: an investigation of university students' travel behaviour. *Tourism Management*, 27 (3), 437-452.
- [11] Godes, D. and Mayzlin, D. (2004), Using online conversations to study word-of-mouth communication. *Marketing Science*, 23 (4), 545-560.
- [12] Grewal, D., Krishnan, R., Baker, J. and Borin, N. (1998), The effect of store name, brand name, and price discount on consumers evaluation and purchase intention. *Journal of retailing*, 74 (3), 331-352.

- [13] Kaushal, S. K., & Kumar, R. (2016), Factors Affecting the Purchase Intension of Smartphone: A Study of Young Consumers in the City of Lucknow. *Pacific Bussiness Review International*, 8 (12), 1-16.
- [14] Kotler, P. and Armstrong, G., (2016), *Principles of Marketing*,. 16th Edition Pearson Education.
- [15] Kotler, P. and Keller, K.L. (2012), *Marketing Management*. 14th Edition, Pearson Education.
- [16] Krueger, N., & Carsrud, A. (1993), Entrepreneurial intentions: applying the theory of planned behaviours. *Entrepreneurship and Regional Development*, 5 (4), 315-330.
- [17] Kueger, N., Reilly, M. D., & Carsrud, A. L. (2000), Competing models of enterpreurial intentions. *Journal of Business Venturing*. 15 (5-6), 411-431.
- [18] Lee, S. and Koubek, R.J. (2010), Understanding user preferences based on usability and aesthetics before and after actual use. *Interacting with Computers*, 22 (6), 530-543.
- [19] Lin, C. The Effect of Brand Images On Purchase Intention in Catering Industry. *Pak. J. Statist*, 29 (5), 2013, 745-754.
- [20] Luthje, C., & Franke, N. (2003), The "making" of an entrepreneur: testing a model of entrepreneurial intent among engineering students at MIT. *R&D Management*, 33, 135-147.
- [21] Malviya, S., Saluja, D., Singh, M., & Singh Thakur (2013), A. A study on the factors influencing consumer's purchase decision toward smartphones in Indore. *International Journal of Advance Research in Computer Science and Management Studies*, 1 (6), 14-21.
- [22] Malviya, S., Saluja, M.S & Thakur, A.S. (2013), A study on the factors influencing consumers' purchase decision towards smart phones in Indore, *International Journal of Advance Research in Computer Science and Management Studies*, 1 (6), 14-21.
- [23] Mathwick, C., Malhotra, N. and Rigdon, E. (2001), Experiential value: conceptualization, measurement and application in the catalog and Internet shopping environment. *Journal of Retailing*, 77 (1), 39-56.
- [24] Moon, H., Miller, D., and Kim, S. (2013), Product design innovation and customer value: cross- cultural research in the United States and Korea. *Journal of Product Innovation Management*, 30 (1), 31-43.
- [25] Osman, M. (2012), A study of the trend of Smartphone and its usage behavior in Malaysia. *International Journal on New Computer Architectures and Their Applications*, 2 (1), 274-285.
- [26] Swani, K. and Yoo, B. H. (2010), Interactions between price and price deal. *Journal of Product and Brand Managerment*, 19 (2), 143-152.
- [27] Toufani, S., Stanton, J. P., Chikweche, T. (2017), The importance of aesthetics on customers' intentions to purchase smartphones. *Marketing Intelligence & Planning*, 35 (3), 316-338.
- [28] Turel, O., Serenko, A. and Bontis, N. (2010), User acceptance of hedonic digital artifacts: A theory of consumption values perspective. *Information & Management*, 47 (1), 53-59.
- [29] Tzou, R.-C. and Lu, H.-P. (2009), Exploring the emotional, aesthetic, and ergonomic facets of innovative product on fashion technology acceptance model. *Behaviour & Information Technology*, 28 (4), 311-322.
- [30] Van der Heijden, H. (2003), User Acceptance of Hedonic Information Systems. *MIS Quarterly*, 28 (4), 695-704.
- [31] Xia, L. and Bechwati, N. N. (2008), Word of mouth: the role of cognitive personalization in online consumer reviews". *Journal of Interactive Advertising*, 9 (1), 108-128.
- [32] Yu, Y., & Lee, K. (2014), A Study on Factors Influencing Purchase Intention of Smartphones on Chinese University Students. *Journal of Digital Convergence*, 12 (1), 153-261.
- [33] Zhu, F. and Zhang, X. (2010), Impact of online consumer reviews on sales: the morderating role of product and consumer characteristics". *Journal of Marketing*, 74 (2), 133-148.