Impact of Social Media Advertising on Consumer Buying Behaviour towards Cosmetic Products among Female Students in Asia Pacific University, Malaysia

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Abstract

Technology development has changed the preference and way of life of people globally. Modern technologies and the internet are intensely using by marketers as a tool of communication to attract and engage the world population towards the brand. However recent development and use of social networking sites switched the marketers from traditional to digital marketing. Therefore, to determine the relationship among social media advertising and consumer buying behavior towards the cosmetic goods as well as to examine the popularity of cosmetic goods among female of diverse age group through various social media channels in Malaysia is the main objective of this study. Moreover, as a market analyst to predict the best social media channel of advertising for the different age group of females was also concerned with this research. Quantitative research approach was conducted with the sample size of 220 female target groups. Further, non-probability sampling (convenience) is used to gather the data and for the analysis of data, SPSS and Rapid miner software were used. To check the hypothesis acceptance, analysis of multivariate was conducted as well as decision tree is applied to predict the best social media channel for marketers. Key outcomes of multiple regression displayed that there is a significant association amomg customer loyalty, customer engagement and EWOM with consumer buying behaviour as well customer loyalty was found as a more influential variable in social media advertising. Decision tree results showed that Facebook and Instagram can be the best platform for cosmetic promotion. To support the findings, gratification and planned behaviour theories were used.

Keywords: Digital marketing, Social networking, Brand loyalty, Brand image, Customer engagement, Buying behaviour, Gratification theory, The theory of planned behaviour.

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1. Introduction

Hasty technology expansion in the business world has upsurge the rivalry in various business areas. Customer attraction and engagement is considered the main source of any business which is achallenge for different marketers in this stiff competitive business globe. Customer attraction, intention to buy and behaviour is a crucial task for companies to take the competitive edge. So the changing in perception and lifestyle of consumer's demands more creativity and innovation in marketing plans. Moreover, fast communication and rapid information split over tools are fundamentals to access immense population and to achieve success. Therefore, the demand for technology in today business is forcing marketers towards the digital marketing tools instead of unconventional marketing(Lee &Hong, 2016). Thus, the researchers such as (Ioanăs and Stoica, 2014; Chongqing *et al.*, 2015) argued that the marketers prefer social networking sitesas a marketing platform to fulfil the need of today business. Social networking platforms included Facebook, Instagram and Twitter are digital-based software that support a person to communicate with one another, and permitting conversation of particulars about their lives in context of profile data, specialised evidence, individual photos and opinions.

The cosmetic industry is a fast rising business in different industrialized and emerging nations. Asia pacific market value has upsurge to more than US$70 billion, which is the second largest market next to the Western European market. In Malaysia, this industry is also growing rapidly (Hassali *et al.*, 2015) as by Malaysia department of statistics in 2014 reported that Malaysian expended about US$407 million on cosmetics and deodorants goods and this demand was chiefly encountered by imports. According to (Zhang and Mao, 2016) Malaysian customers' attention is influenced by aggressive marketing, promotion and rising affluence that increased their attention towards best brands, and they choose to use best cosmetics goods. Thus, it is need to put more effort on advertising through the most popular platform.

Thus, hasty development of communication and information technologies harassment has shifted marketers towards social media marketing from traditional advertising (El-Haddadeh et al., 2012). Therefore, industries are gradually capitalising in social media marketing Duffett (2015). The adoption of social media in the health &beauty industry can engage more individuals towards the products. However, social network advertisement expenditure in Asia-Pacific is estimated $11.42 billion greater than each area other than North America in 2016, thus, it's noteworthy that 40% of sellers in the region give for the promotion through social networking platforms(Hsu, 2012). Similarly, (Zhang and Mao, 2016)contended that the advertising on social networking motivate customers to engage and involve with various products. This engagement creates several novel relations with different consumers and dealers on continuous basis. However, despite an increasing trend of social media marketing, the research on social media advertising in cosmetic industry is still in an infancy stage with many deviating results (Taylor et al., 2011; Duffett, 2015).

Similarly, (Zayer and Neier, 2011) argued that the buying behaviours of different genders are mainly different because of their different requirements, characters and roles. However, the use of cosmetics is more popular among females than males (Swidi et al., 2014). In literature it is found that there is a dearth of social media advertising and cosmetic products advertising specifically on female targeted population in Malaysia (Hassali et al.,2015). Thus, there is need to study of social media advertising impact on customer buying behavior in cosmetic products.

Indeed, multiple concerns are related with this technology based advertising tool includedabsence

of consumer engagement, undesirable electronic word of mouth, less loyalty of customers and most significant to build brand image among customers(Audi, Masri and Ghazzawi, 2015). Thus, purchasing behaviour intention is a more imperative concern of today marketing. Consumers with more brand loyalty are fewer prices oriented and they choose to purchase products on spot. Similarly,customer engagement, constructive brand image and electronic word of mouth become modify buyer behaviour and lead them towards immediate purchasing.

The key drive of present research is to check the advertising of social media impact on the buying behaviour of different age group females towards the cosmetic products. Moreover, this research is important to give the insight of successful digital marketing campaigns and to choose the best social media platform for these promotionsto the marketers and cosmetic industry of Malaysia. Therefore, factors included E word of mouth, customer loyalty and brand image impact on buying behaviour of customers are considered by researcher in this study.

2. Literature Review

2.1. Customer Buying Behaviour

To change the mind of customers in online buying is a great challenge for marketers of various industries. Customer buying behavior is a main factor that can increase the sales of businesses as the customers are main source of companies sales. Different researchers has argued that consumers' behaviour recognition is difficult especially through digital channels because the absence of direct interaction in online shopping, thus it is significant to recognise the main aspects of customer behaviour through online shopping (Rowley, 2005; Zhou *et al.*, 2008; Hanaysha, 2016). Similarly, (Muchardie, Yudiana and Gunawan, 2016)describe the significance of the association among the advertising approach and the behaviour of the customer. These researchers

further contended that the behaviour of customers can be changed by the understanding of their needs and wants. Some researchers such as (Ioanăs and Stoica, 2014; Rvc, 2017) posits that virtual based commerce through social media has shaped a more viable setting so to recognise the behaviour of online consumers is critical for marketers. Mainly consumer buying behaviour considerate can give the businesses a way to reach mark educations. Moreover, (Alhedhaif, Lele and Kaifi, 2016) discussed that social media has effected on the behavior of consumer by information taking to post-buyingactivities such as displeasure declarations or satisfactory posts from a company or family and friends.

2.2 Customer Loyalty

Customer loyalty plays an important role for any industry success especially through the advertisement of social media as (Swidi et al., 2010)conducted a research on customer loyalty to give the in-depth knowledge of customer loyalty through the advertising on social media where consumers are differentiated into behavior and loyalty. This researches planned the distinction among consumers whose loyalty is inertial and the one who is optimistic. Four sets of loyal consumer are predictable such as restricted, convenience-seekers, pleased and enthusiastic as well as the expectable activities and behaviors of customers in these various groups were contend. The research also suggested that consumers in numerous groups are reacted in different ways to triggers to exchange. This study unheeded the other features such as service excellence association with loyalty of customers. Moreover, (Chan& Guillet, 2011) has conducted a study in Malaysia on retail business through social media which examined consumer loyalty from the viewpoint of attitudinal and behavioural. The outcomes disclose that the intellectual antecedents of loyalty are the tools of store situation and service excellence is affected by customer gratification and this moves them towards loyalty.

Furthermore,(Gupta, 2013) explained that online consumers give achance for businesses to acquirevalueddata from engaged consumers and on the foundation of this material they can shaperelations with online customers which can move these customerstowards loyalty.

2.3 Customer engagement

Engagement of customers is a significant part for the success of business as engagement of customers creates a consumerseller association as well as real customers and stakeholders. However, social media platforms propose potentials for the consumer to shaperelations, faith and assurance among individuals and products(Vivek et al., 2012). Same as (Duffett, 2015) discussed that advertising through social media channels are important to maderelations with customers and to engage them towards the goods and services. Further, it was explained by (Chu & Kim, 2011) that this concept clarifies how shared relation can construct, uphold and progress for long period and also how consumersoffering them in a physical, responsive and intellectualexistence in cooperating with the product.

2.4 Brand image

According to (Keller, 1993),a brand image brought to the purchaser's mind by the brand connotation. (Roy and Banerjee, (2007)defined a brand image as a consumer's thoughts and feelings about the brand. Further, (Hanaysha, 2016) found that brand image plays an important role in marketing and consumer buying intention. Brand image is essentially aninsight and faith of consumers towards the product and services. Furthermore,(Hassali et al., 2015)suggested that consumers can develop demonstrative relations to a product by brand image. However, brand image is measured as aninfluential tool for victory in various organizations(Diffleyet al., 2011).

2.5 E-Word of Mouth Communication

Electronic word of mouth is an important factor of social media as it permits products to communicate with customers more effectively than traditional way. Thus, social media is considered as a quick medium of information sharing and receiving (Senders, Govers & Neuts, 2013). Through social media channels, customers can share their thoughts and experiences quickly.(Lin and Lu, 2011) present the notion of electronic word of mouth and stated that it is a constructive or destructivedeclarationby a possible, actual and preceding consumer. Thus, through social networking channels consumersare able to share their views and opinions about products and services. Moreover, some researchers originated that EWOM has been takingnumerousimpacts on customer behaviour patternsincludingbuying decision and loyalty of consumer(Taylor, Lewin & Strutton, 2011).

2.6. Hypothesis Development

2.6.1 Customer Buying Behavior and Customer Loyalty

Customer loyalty can measure through repeat visit and repurchasing attitude of customers (Yee & Sidek, 2009; Severi & Ling, 2013). Moreover,(Gupta, 2013; Preece, 2012)contended that it is imperative to recognise the motivebehind customer loyalty because it became a bestapproach for companies to improve and assistconsumers as well as the influence on their purchasingbehaviour. Some past researchersproves that loyal customers are the main aspect of buying behaviour (Kalam& Akterujjaman, 2013) but some researchers show that there is no relationship between customer loyalty and buying behavior(Alhedhaif, Lele & Kaifi, 2016; Hanaysha, 2016), however, this relationship is still debatable in literature.

H1: There is a significant relationship between customer loyalty and buying behaviour

2.6.2 Customer Buying Behavior and Customer Engagement

Customer engagement is a main contributor to understanding customer behaviour while it is also aco-creativeapproach to engaged clienteles to clienteles(Alhedhaif, Lele & Kaifi, 2016). Similarly, (Patterson, Yu, & De, 2006, p.3) discussed that customer engagement is measured as a level of reasoning, demonstrative and physical existence of anassociation with the good and services of consumers. Additionally, (Fatima, 2015)pointed out that customer engagement is the same as customer involvement which leads customers towards impulse buying behavior. Nonetheless, it is debatableamongvariousinvestigators and stirring theories that whether consumer engagement is positively associated or not with the purchasing behavior of customer (Sengupta, 2014).

H2: There is a significant relationship between customer engagement and buying behaviour

2.6.3 Relationship between Brand Image and Buying Behavior

According to (Bowen, 2015)brand image and buying behavior arehighlyassociated with each other as more brand awareness leads customers to buy product. Likewise,(Muchardie, Yudiana & Gunawan, 2016) posit that buying behavior could be effected by brand image and brand awareness onlarge scale.(Durrani, et al, 2015) argued that purchasing behaviour of consumersisinterconnected with brand image and brand image has a noteworthyassociation with purchasingbehavior of consumers. Furthermore, consumers buying behaviour can modify through promotion.

H3: There is a significant relationship between brand image and buying behaviour

2.6.4 Relationship between Electronic Word of Mouth and Buying Behavior

In literature such as (Balakrishnan, Dahnil and Yi, 2014) indicated that electronic word of mouth is more importantaspect to gratify the consumersas well as the bestforecaster of customer's buying behaviour. Similarly, (Hanaysha, 2016; Bowen, 2015) posit that there is a substantialassociation between buying behaviour and word of mouth and positive word of mouth leads customers towards purchasing. (Hanaysha, 2016)further positsthat electronic word of mouth is an imperativeaspect on social media which can positively or adverselyaffectconsumerpurchasing behaviour. Adverse electronic word of mouth communication has a highinfluenceonconsumer buying behaviour in context of avoiding purchasinggoods. Likewise, (Swidi et al., 2010) brand selection is encouraged by positive WOM while discouraging by negative WOM. Similarly,(Chi, 2011)discussed that E word of mouth considerablyimpacts on customers buying behavior.

H4: There is a significant relationship between E word of mouth and buying behaviour

2.7 Theoretical Background

The current research is supported by some theoretical grounds included planned behaviour and gratification theories. However, The Uses and Gratification Theory weregiven by Katz and Blumler in 1974 which is based on technology usage and Theory of Planned Behavior was presented by Ajzen in 1985. A use of Gratification Theory hasconsiderablyusedto social media studies(Preece, 2012). In present study, the use of gratification applications is based on the declaration that the customer is alively and self-conscious provider on various social media platforms and these channelseffect on their behavior. Moreover, the theory explains that the needs and wants of customers could be satisfied through social media advertising. Nonetheless, planned behaviour suggests that person behaviour

is examined by the individualplans to attain the behaviour. The purpose is generated by the persons attitude towards the behaviour and subjective norm. Besides, the intention is the bestforecaster of individual behaviour. According to (Farook and Abeysekara, 2016), the selection of media by customers is considered to be value-focused and objective oriented. Therefore,in various social media researches the application of gratification has been taken to determine the exercises and stimulus behind the practice of social media channels to recognise the characteristics that determinechannel of social network for customer engagement and also increasing models which determine the optimistic engagement behaviour in term of brand loyalty, brand image and practise of strength(Balakrishnan, Dahnil and Yi, 2014; Audi, Masri and Ghazzawi, 2015). These theories are also relating in traditional advertising platform and also it is imperative to judge the rational, demonstrative and other basic requirements of consumers. Besides, this theory is based on three keyvalues; person behaviour is goal oriented, they are livelyoperatorsof social media and finallycustomerspractise social media to please their requirements. Nonetheless, these theories are sustained by practicalmark and also forecastconsiderate behaviour because it can be deliberate and intentional.

3. Research Methodology

3.1 Research Framework

The currentstudy carried out to taken into consideration the numerousfactorsthat impact of Social Media Advertising on Consumer Buying Behaviour towards Cosmetic Products among Female Students in Asia pacific University, Malaysia.The framework in this study is based on the associationamongcustomer loyalty, customer engagement, brand image and E word of mouth with buying behaviour. An overview of the research framework is presented in Figure1.

3.2 Sampling Design

Female of different age group is selected as a target population to collect the data for this research. The researcher selected Female Students in Asia pacific University as a sample from the whole population of females in Asia pacific UniversityMalaysia. Moreover, the researcheradopted non probability sampling whereconvenience sampling is used in which all respondents have equal chances to respond as it is found to be the best option for this research because of its time-consumingadvantage.

3.3 Data Collection Approach

Quantitative based data is the main focus of current study as it is more effective to attainreliable outcomes by applying primary data through the use of questionnaire as data collection instrument. Thus, the researcherhas randomly distributed a questionnaire to 220different age group female in the selected area. Additionally, pick and drop approach was applied to gather data through a questionnaire. The questionnaire was divided into two sections, section A was designed to get information on the profiles of the respondents and section B was made up of numerous questions related to elements and all these queries were planned to using a five-point Likert scale.

4. Findings and Result

4.1 Descriptive Demographic Information Analysis

A total of 34.5% women fellintothe category of the 20-25 age group which is greater than other age groups. Furthermore, 25%, 23% and 17% female were lying in the category of below 20, 26-30 and above 30 respectively. So, in this research, the respondent with the age group of 20 to 25 are in higher number while 26-30 are a second large group of respondents in current research. Mostly women gave a response in yes (97.7) that they like to use cosmetic products and 92.7% of women said yes that they use social media for shopping

for cosmetic products. Facebook (34.5%) and Instagram (25.5%) are the most popular channels of social media among female. Only 10% respondents chose other social media channels.

4.2 Descriptive Statistics for Measuring Level of Dependent and Independent Variables

In this part of descriptiveanalysis mean of each variable is carried out to check the level of agreement of respondents. Standard deviation is also the part of this analysis which shows the variation or variability in the opinion of respondents. This analysis is important to determine the entire image of social media advertising in buying behaviour of customers in cosmetic products. The value of Mean is less than 3 which shows low level of agreement, moderate relation shows at less than 4 and the value 4 or abovespecifies high level of agreement. S.D less than 1 or far from one indicates the less variation in the views of respondents and also specifies that all respondents have shared almost same opinion.

All variables mean value of current study in Table 1 is between 4.17 to 4.24 with standard deviation from .523 to .883 which shows that most of the respondents were answered within the scale of agree to strongly agree in most of the measuring items. Standard deviation is used to measure the ambiguity. Greater value of standard deviation indicates more disparity in the data and shows that values are so far from real values. Therefore in current research S.D values are low which shows that calculated values are close to real values and there are the low variations in respondent's opinions. See Table 1 Descriptive Mean and S.D.

4.3 Reliability Analysis

Reliability analysis was carried out to check the adequacy and accuracy of questionnaire. However, the value of Cronbach's Alpha should be equivalent to or larger than .70 for reliable data (Hair et al. 2010). Likewise,(Cavana et al., 2001) discussed that Cronbach alpha with the value of greater than 0.70 is considered as an acceptable and good. However, all variables in table 2 are greater than .70 Cronbach Alpha which justifies the data is consistent for the researchand questionnaire isappropriatefor the research and findings are precise and reliable. See Table 2 reliability analysis.

4.4 Decision Tree Analysis

Rapid Miner Studio is an advanced analytics platform that contains predictive analysis, business analysis, data mining and text mining. Particularly rapid miner is considered as an important instrument that plays a vital role to measure the performance of different procedures. It gives approximately 99% of a modern analytical solution by reducing errors (Gomathi & Narayani, 2015). In this research, the researcherruns rapid miner on demographic questions such as age, social media channels trend and cosmetic product trends. As a market analyst, the researcher will predict the most familiar and best social media channel for the cosmetic industry forthe different age group of females.

The results of rapid minor analysis showed that most of the female consumers like cosmetic products; they prefer online shopping through social media platforms as well as mostly female like online shopping of cosmetic products through Facebook. Decision tree results (see Figure 2) indicated that the age group of 5- 30 generally prefer Facebook, 20-25 and below 20 are more engaged in Instagram. Age group above 30 responses showed that they are not restricted on one platform and prefer all platforms of social media. On Physical and social media platform they buy products if they liked. So it is predicted that in decision tree Facebook and Instagram are best for cosmetic product advertisement. For the age of above30 marketers need some creativity, rewards and packages through social media channel to take their attention towards the products. They should try to motivate this age

group through the complete package of value proposition to satisfy their needs on different social media sites as well through physical platform. Therefore, decision tree results specified that social media channels are a stronger predictor of cosmetic products advertisement for female consumers. Marketers can attract different age group of female consumers towards their products through Facebook and Instagram.

4.5 Multivariate Analysis

Multiple regression analysis was carried out to check the extent of relationship between independent variables and customers buying behavior. This type of data analysis shows the effect of independent elements on the dependentfactor. However, B value less than .05 in this test shows a significant relation where hypothesis are accepted while greater value of B indicates the rejection of hypothesis. The model summary and hypothesis decision tableare presented below in Table 3&4 respectively.

Therefore in current study the adjusted R² of the model is .566 with the R² = .574 which specifies that the linear regression describes 57.4% of the variation in the dependent variable (buying behaviour). In addition, the value of R square .574indicates that the independent elements (customer loyalty, brand image, customer engagement and E-word of mouth) explain variability and predict the buying behaviour. *R* Square value of regression model is greater than 0.35 that can be interpreted as a strong effect(Cohen, 1988). See Table 3for Model Summary.

Unstandardized coefficients (b) indicate how much the buying behaviour varies with the variables such as customer loyalty, customer engagement, brand image and E-word of mouthwhen all other independent elements are taken as constant. In this study the result of B value forcustomer loyalty (B= .543; Sig. =.000), customer engagement (B= .106; Sig. =.045),

brand image (B= .143; Sig. =.043) and E-word of mouth (B= .304; Sig. =.000)shows the impact of these variables onfemale customers buying behavior for cosmetic products through social media advertisements in Malaysia (see Table 4). Customer loyalty is a moreimportant factor which largely impacts on buying behaviour in Malaysian cosmetic companies. Thus, all hypotheses under this researchwere accepted.

6. Implications of Study

In context of practical implications, this study is important for businesses and more specifically for marketers as marketers can get information about female customers buying behavior through the use of social media. It will give the idea to marketers about advertisement on social media and which channel is more reliable and useful for promoting brands. Companies could enhance their sales with this low cost marketing strategy. Theoretically, this study is based on Uses of gratification and theory of planned behavior which will helpful for researchers to explore more variables.

7. Conclusion

The purpose of this study was to determine the role of customer engagement, customer loyalty, brand image and E-word of mouth role in purchasing behaviour towards cosmetic goodsthrough the advertising bysocial media.Data was collected from different age group of females in Kuala Lumpur Malaysia. The findingsstated that all independent elements (customer loyalty, brand image, customer engagement and E-word of mouth) have a significantpositive effect on buying behaviour with socialmedia advertisements.

Findings of this study deliver some insights into the industry. With the use of the customer loyalty, brand image, E-word of mouth, customer engagement and in term of social media, companies can familiar its products and services and consequently attract and retain customers. Furthermore, the finding indicates that Facebook

and Instagram can upsurge the buying power of customers which can be helpful for marketers for advertisement strategies. The businesses can boost its sales through Facebook and Instagram advertising. Moreover, Instagram is best for the age group of 13 to 25 and Facebook is appealing for 26 to 30 age group of females.

The R square value of 0.574 indicates that the 57.4% variance in buying behaviour is attributable to the following variables: customer loyalty, customer engagement, brand image and EWOM. However, there is quite53.6% of the variance in buying behaviour that is not explained. This indicates that there are still other variables need to explore in further research that can affect the variance of buying behaviour except the factors performed in this search.

8. Limitations and Recommendations

In context of constraints, this study also holds some constraints that overcome by researcher. Therefore, these constraints could lead researchers towards more study on this area. Thus, on the basis of these limitations the researcher suggested some useful recommendations for upcomingstudy.

Instrumnetation such as questionnaire used in this study is the most considerable limitation, where this study depends intensely on questionnaire to gather data as the questionnaire is deliberated one of the most widely used instruments in quantitative based research. It is used to try and recognise the opinions of individuals,as well as their feelings, wishes, tendencies, and individualfeatures. Therefore, despite of these characteristics, researchers cannot constantly gain a deep and adequate understanding of the views, tendencies, and individual experiences of the respondents through this data collection

instrumentation. It may also be measuredas aprejudice to examinerespondents to selectamongsubstitutes and respondents may feel frustrated with their own opinions. Thus, these problems are all considered as threats to the validity and consistency of the data collection tool. However, this limitation was overcome to provide simple language in the questionnaire. Moreover, there is need to assisted the respondents to recognise the motive of questions. Thus, in light of this limitation, the researcher suggested to use a mixed research approach in future study to get more reliable and validate findings. According to (Cresswell, 2003), mixed method empowers the investigator to valid results through triangulation process. Thus researcher recommendedthe mixed research approach to obtain more reliable findings through in-depth interview, observation, and questionnaire.

Moreover, the strength of independent variables is another constraint of this research as the R square value of 0.574 indicates 57.4% variation in customer buying behaviour towards cosmetic products. However, there is quite43.69% of the variation in customer buying behavior that is not described which shows that there are still other elements that could impact on the buying behaviourbesides the variablescarried out in this study, therefore,additionalstudy is suggested to examine more elements or research could carried out on various sets of elements.

Additionally, in further studies,researchers can use some mediating variables to give more robust results such as customer engagement could use to understand more deeply about the buying behavior. A validity test should be executed to confirm the validity of the instruments. Upcoming research should enlarge the sample size through the target population as taken male and female to show the population for better and more detailedresults.

8. Tables and Figures

Table 1: Descriptive Mean and S.D

No.	Variables/Indicators	Mean	S.D
	Customer Loyalty (X1)	4.24	.621
1	Customer Engagement (X2)	4.22	.772

	Brand Image (X3)	4.18	.883
	E word of Mouth (X4)	4.24	.523
2.	Buying Behaviour (Y)	4.17	.765

Table 2: Reliability Analysis

Variables	Cronbach's Alpha Value
Buying Behaviour	0.715
Customer Loyalty	0.815
Customer Engagement	0.736

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. The error of the Estimate
1	.757^a	.574	.566	.34672

a. Predictors: (Constant), E-Word of Mouth, Customer Loyalty, Brand image, Customer Engagement

Table 4: Hypothesis Result

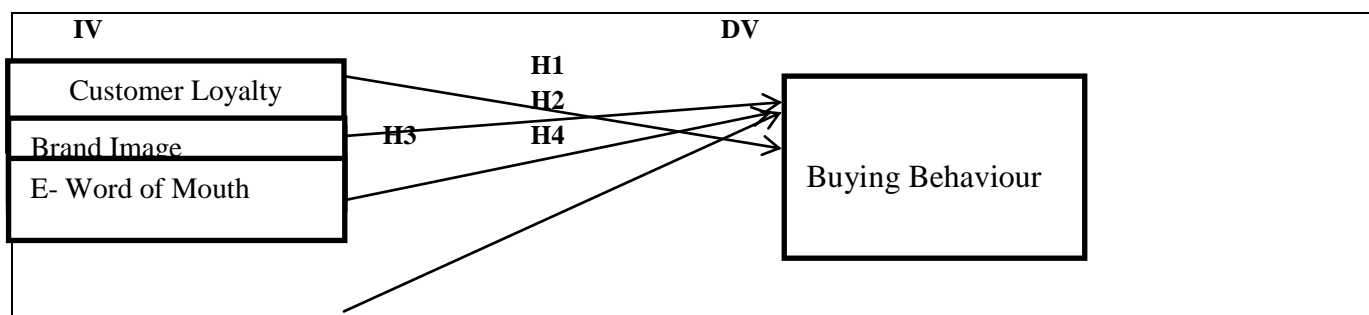| Hypotheses	Regression Results		Decision
	B	**Sig.**	
H1: There is a relationship significant between customer loyalty and customer buying behaviourin cosmetic products in Kuala Lumpur Malaysia.	.543	.000	**Accept**
H2: There is a significant relationship between customer engagement and customer buying behaviour in cosmetic products in Kuala Lumpur Malaysia.	.106	.045	**Accept**
H3: There is a significant relationship between Brand image and customer buying behaviourin cosmetic products in Kuala Lumpur Malaysia.	.143	.043	**Accept**
H4: There is a significant relationship between E-Word of Mouth and customer buying behaviourin cosmetic products in Kuala Lumpur Malaysia.	.304	.000	**Accept**

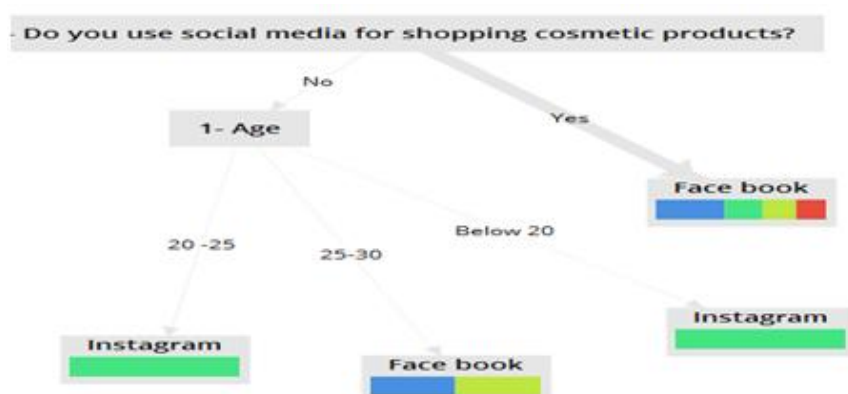**Figure 1- Proposed Conceptual Framework**

Figure 2- Decision Tree

References

[1] Ahmed, R. R. and Parmar, V. (2014) 'Impact of Product Packaging on Consumer ' s Buying Behavior', European Journal of Scientific Research 120 (2): 145-157, March 2014, Available at www.europeanjournalofscientificresearch.com

[2] Ajzen, I. (2015) 'Consumer attitudes and behaviour: the theory of planned behaviour applied to food consumption decisions', pp. 121–138. doi: 10.13128/REA-18003.

[3] Alhedhaif, S., Lele, U. and Kaifi, B. A. (2016) 'Brand Loyalty and Factors Affecting Cosmetics Buying Behavior of Saudi Female Consumers', Journal of Business Studies Quarterly, 7(3), p. 2152.

[4] Audi, M., Masri, R. Al and Ghazzawi, K. G. (2015) 'The Effect of Celebrity Endorsement on Creating Brand Loyalty: An Application on the Lebanese Cosmetic Sector's Demand, International Journal of Business Management & Economic Research, 6(5), pp. 273–287

[5] Balakrishnan, B. K. P. D., Dahnil, M. I. and Yi, W. J. (2014) 'The Impact of Social Media Marketing Medium toward Purchase Intention and Brand Loyalty among Generation Y', Procedia - Social and Behavioral Sciences. Elsevier B.V., 148, pp. 177–185. doi: 10.1016/j.sbspro.2014.07.032.

[6] Banyte, J. and Dovaliene, A. (2014) 'Relations between customer engagement into value creation and customer loyalty', Procedia - Social and Behavioral Sciences. Elsevier B.V., 156(April), pp. 484–489. doi: 10.1016/j.sbspro.2014.11.226.

[7] Bowden, J. L. H. (2009). The process of customer engagement: A conceptual framework. Journal of Marketing Theory and Practice, 17(1), 63–74. doi:10.2753/MTP1069-6679170105

[8] Brown, J., Broderick, A.J., & Lee, N., 2007. Word of mouth communication within online communities: conceptualizing the online social network. Journal of Interactive Marketing,21(3), pp.2–20.

[9] C. W. Chen (2011) 'Statistical analysis for consumers' intentions of purchasing cosmetics, African Journal of Business Management Vol. 5(29), pp. 11630-11635,23 November, 2011 Available online at http://www.academicjournals.org/AJBM DOI: 10.5897/AJBM11.1278

[10] Chan, N. L., & Guillet, B. D., 2011. Investigation of Social Media Marketing: How Does the Hotel Industry in Hong Kong Perform in Marketing on Social Media Websites?. Journal of Travel & Tourism Marketing, 28 (4), pp.345-368.

[11] Chi, H. (2011), "Interactive digital advertising vs virtual brand community: exploratory study of user motivation and social media marketing responses in Taiwan", Journal of Interactive Advertising, Vol. 12 No. 1, pp. 44-461.

[12] Chu, S. C., & Kim, Y., 2011. Determinants of consumer engagement in electronic word-of-mouth (eWOM) in social networking sites. International Journal of Advertising, 30 (1), pp. 47–75.

[13] Diffley, S., Kearns, J., Bennett, W., & Kawalek, P., 2011. Consumer Behaviour in Social Networking Sites: Implications for Marketers. Irish Journal of Management, 30 (2), pp.47-65.

[14] Doh, S. J., & Hwang, J. S., 2009. How Consumers Evaluate eWOM (Electronic Word-of-Mouth) Messages. Cyber psychology& Behavior, 12 (2), pp.193-197.

[15] Duffett, R.G. (2015), "Facebook advertising's influence on intention-to-purchase and purchase amongst Millennials", Internet Research, Vol.25

No. 4, pp. 498-526

[16] Farook, F. S. and Abeysekara, N. (2016) 'Influence of Social Media Marketing on Customer Engagement Influence of Social Media Marketing on Customer Engagement, International Journal of Business and Management Invention

[17] Fatima, S. (2015) 'Impact of Advertisement on Buying Behaviours of the consumers : Study of Cosmetic Industry in Karachi City. International Journal of Management Sciences and Business Research, Oct-2015 ISSN (2226-8235) Vol-4, Issue 10, pp. 125–137.

[18] Gupta, S. a. (2013). Impact of Promotional Activities on Consumer Buying Behavior: A Study of Cosmetic Industry. International Journal of Commerce, Business and Management (IJCBM), ISSN: 2319–2828 Vol. 2, No.6.

[19] Gomathi, S. and Narayani, V. (2015) 'Applying Decision tree algorithm to predict Lupus using Rapid Miner Applying Decision tree algorithm to predict Lupus using Rapid Miner, International Journal of Applied Engineering

[20] Guba, E. G. (1990) 'The alternative paradigm dialogue', The paradigm dialogue, pp. 17–30. doi: 10.1080/1357527032000140352.

[21] Hanaysha, J. (2016) 'Building Brand Equity through Customer Service : A Study on Restaurant Industry in Malaysia', *Journal of Research in Business, Economics and Management*, 5(5), pp. 678–685. doi: 10.18178/ijimt.2016.7.2.643.

[22] Hassali, M. A., Al-Tamimi, S. K., Dawood, O. T., Verma, A. V. and Saleem, F. (2015) 'Malaysian Cosmetic Market: Current and Future Prospects', *Pharmaceutical Regulatory Affairs*, 4(4), p. 1000155. doi: 10.4172/2167-7689.1000155.

[23] Hollebeek, L.D.(2011a),‖Demystifying customer brand engagement: exploring the loyalty nexus‖, Journal of marketing management,Vol.27 Nos 7/8,pp.785-807

[24] Hsu, Y.L. (2012), Facebook as an internationale-Marketing strategy of Taiwan Hotels, International Journal of hospitality management, Vol.31 No.3, pp.39-47

[25] Ioanăs, E. and Stoica, I. (2014) 'Social media and its impact on consumers behaviour', *International Journal of Economic Practices and Theories*, 4(2), pp. 295–303.

[26] Johri, L. M. and Sahasakmontri, K. (1998) 'Green marketing of cosmetics and toiletries in Thailand', *Journal of Consumer Marketing*, 15(3), pp. 265–281. doi: 10.1108/07363769810219134.

[27] Lin, K-Y and Lu, H-P. (2011), Why people use social networking sites: an empirical study integrating network externalities and motivation theory, Computers in human behaviour, Vol.27 No.3, pp.1152-1161.

[28] Liu, Y. and Shrum, L.J.(2002),‖What is interactivity and is it always such a good thing? Implications of definition, person and situation for the influence of interactivity on advertising effectiveness‖, Journal of advertising, Vol.31 No.4,pp.53-64.

[29] Muchardie, B. G., Yudiana, N. H. and Gunawan, A. (2016) 'Effect of Social Media Marketing on Customer Engagement and its Impact on Brand Loyalty in Caring Colours Cosmetics, Martha Tilaar', *Binus Business Review*, 7(1), p. 74. doi: 10.21512/bbr.v7i1.1458.

[30] Palmer, P. B. and O'Connell, D. G. (2009) 'Research Corner Regression Analysis for Prediction: Understanding the Process', *Cardiopulmonary Physical Therapy Journal*, 20(3), pp. 23–26.

[31] Preece, H. (2012) 'Examining Social Media Use in Fashion: The Need for Industry Standards', (December), p. 55.

[32] Rowley, J., 2001. Remodelling marketing communications in an Internet environment. Internet Research, 11 (3), pp.203 - 212.

[33] Swidi A, Cheng W, Hassan MG, Al-Hosam A, Kassim M, et al. (2010) The mainstream cosmetics industry in Malaysia and the emergence, growth, and prospects of halal cosmetics.

[34] Taylor, D.G., Lewin, J.E. and Strutton, D. (2011), "Friends, fans, and followers: do ads work on social networks", Journal of Advertising Research, Vol. 51 No. 1, pp. 258-275.

[35] Xu Yang, S. J. (2012). Ideal Types of Strategic Innovation An Exploratory Study of Chinese Cosmetic Industry. International Journal of Business and Management; Vol. 7, No. 17;

[36] Zhang, J. and Mao, E. (2016), "From online motivations to ad clicks and to behavioral intentions: An empirical study of consumer response to social media advertising", Psychology and Marketing, Vol. 33 No. 3, pp. 155-164.