The effects of consumer and brand personality on mobile services purchase

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Abstract: The advent of telecommunication technology saw a growth of mobile service providers, particularly in the Malaysian market. Each service provider tends to offer competitive packages in their quest to attract customers. Nevertheless, the purchase of mobile services indirectly is influenced by the customers and brand personality. Hence, brand personality management is a critical part of a company's marketing program in today's global market. Despite the importance of brand personality in academia and practice, very limited empirical research has examined the determinant roles of brand personality on actual consumer brand purchase, particularly mobile services. Given its great potential usability for marketers and brand managers, this study conceptualises and examines the impact of consumer personality on brand personality and its subsequent effect on the Malaysian consumers brand purchase, focusing specifically on mobile services purchase. The empirical evidence from the study suggests that the consumer personality's dimensions have significant relationship with the mobile services brand personality. However, the results of this study indicate no differentiation of impact for mobile services brand personality on the actual mobile services purchase.

Keywords: mobile services; brand purchase; brand personality; consumer personality; Malaysia.

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1 Introduction

Telecommunication industries particularly the mobile phones services have moved from mere communication-oriented services such as voice calls, to more complex content-oriented services. Nowadays, mobile phones often get equipped with multiple network interfaces including Infrared, Bluetooth, Wi-Fi, GSM and UMTS, which enable these devices to support multiple auxiliary devices (e.g., camera, robots). Furthermore, the applications running on a mobile device can provide context information (e.g., the computational and communication environment of the mobile device, positioning information) which is of interest in the area of context aware computing. Services through the mobile phone include ubiquitous communication [e.g., e-mail, short message service (SMS)], content deliveries (e.g., health-related messages, pill reminders), entertainment services (e.g., music downloads, gaming, gambling, sports scores), location-based services (e.g., finding nearby facilities/services, transportation information, tour guides), movie and concert ticketing, store and restaurant discount coupons, shipment tracking, comparison shopping, banking, and bill payment. Phan and Daim (2011) claim that the future of mobile telecommunications is expected to focus on mobile services. Mobile services are expected to be a remediation for the declining of average revenue per user (ARPU) in telecommunication market (Nikbin et al., 2012). Another study also emphasises that the future of the telecommunications sector will be depending on mobile services development, in addition to voice services (Bouman et al., 2007). It is believed that the mobile services market is likely to scale up in the future, thus it is also expected that there will be an increase in the number of mobile services providers (Alamro and Rowley, 2011; Phan and Daim, 2011). Each service provider would be offering competitive packages in their quest to attract and retain existing customers. Thus, it would be useful to discover what factors influence the consumer's final purchase.

In recent years, the mobile communication market in Malaysia has experienced quite a rapid growth in terms of subscribers, mobile devices and mobile services (MCMC, 2015). In 2008, the penetration rate regarding mobile phones was 93.9 per 100 inhabitants. The year 2009 could be considered as a milestone in the Malaysian mobile market, which had a mobile phone penetration rate of 105.4% exceeding 100%, and was the start of a vast area of activity in spite of the global economy slowdown which affected enterprises' economy parts and connections (Sulaiman et al., 2011). Malaysia's mobile phone penetration rate reached 119.2% in 2010, 127.7% in 2011, 138.1% in 2012, 143.8% in 2013, and finally 148.3% in 2014 (MCMC, 2015), showing a steady growth rate. According to the Malaysian communication and multimedia commission (MCMC, 2015), Malaysia is placed second among the ASEAN countries which highlights 148.3% of Malaysian were mobile users at the year 2014. The findings also indicate that Malaysia is ahead of developed countries such as the USA (98.4%), Australia (131.2%) and Japan (120.2%).

Increasing demand of the customers for more advance mobile services such as fourth generation (4G) technology in a highly penetrated and slow-growth mobile market has stirred up the competition among the mobile service providers in Malaysia. Furthermore, with the introduction of mobile number portability (MNP) which allows customers to switch anytime with minimum cost and impact while maintaining their number, the competition has become fiercer than ever before (Nikbin et al., 2012). The competition

stiffens and service providers' try to outdo each other in sustaining their subscriber base and earnings. This rate is reaching the saturation point, where it provides an opportunity for service providers to offer various incentives for customers to easily switch if they are dissatisfied with their current service provider. The increased competitive pressure has urged the mobile service providers to be more aggressive in launching various new marketing campaigns in order to catch the attention of new consumers and also retain existing customers (Wen and Hilmi, 2011).

A significant amount of attention has been given to the construct of brand personality. Previous research has focused mostly on the structures of brand-personality dimensions and its scales (e.g., Ivens and Valta, 2012; Su and Tong, 2015; Sung et al., 2010; Sung and Tinkham, 2005), but very limited empirical research has explored the determinant roles of brand personality on actual consumer purchase (Gammoh et al., 2014; Kum et al., 2012). Given its great potential usability for marketers, the predictive roles of brand personality on consumer brand evaluation and preference formation need to be empirically investigated (Gammoh et al., 2014; Lin and Huang, 2012). Thus this study aims to study the effect of brand and customer personality on mobile services purchases. This study, however, focuses on the top three Malaysian providers, i.e., Maxis, Celcom and DiGi.

This article starts with a review of literature on consumer personality, brand personality and brand purchase. This is followed by an outline of the methodology adopted. Next, data analysis and findings are summarised. Finally, conclusions and recommendations are offered.

2   Literature review and hypotheses formation

Brands are arguably the most valuable assets to an organisation and a source of differentiation that plays a distinctive role in the purchase decision. Brand personality has gained increasing attention from researchers over the last decade and has been identified as an influential factor affecting consumers' perceptions and usage of a specific brand (Lin and Huang, 2012). Marketing managers have long tried to distinguish their brand from the competitors as a means to achieve competitive advantage. In recent years, the brand personality strategy has moved from functional and utilitarian benefits, as the competition intensified and customers are looking for a symbolical meaning. It allows brand positioning and differentiation and it becomes an important quest for marketers to develop meaningful and distinctive brand personality in the minds of the consumers. As such, understanding of the personality helps marketers in the critical stages of segmenting, targeting and positioning products to suitable markets. The service provider that designs products according to pre-determined personalities that are associated to the consumers of the target market will create preference. In that case, the same products of an equivalent function, yet with variable personalities allow consumers to express individuality. The possibility to increase their market share could soar against the competitors who are unable to identify the emotional needs of the similar market.

2.1   Consumer personality

Huang et al. (2012) quoted that consumer personality affected purchase motivation, as people have a motive to behave consistently with their self perception that prefers product with images that match their own. To do otherwise would cause dissonance – a state of psychological discomfort that threatens to invalidate their belief of themselves (Kum et al., 2012). Various personality theories have been developed over the years to describe and explain the structure, process and development of human behaviour. The most popular personality study is trait theory that places a great emphasis on exploring the basic structure of personality. Trait theories assume that people possess broad predispositions to behave in certain ways. There is a growing understanding between the researchers that personality is built by five basic dimensions. The Big Five trait theory (Costa and McCrae, 1992) is namely extraversion, agreeableness, conscientiousness, neuroticism and openness to experience.

Extraversion is defined as the tendency to experience positive emotional states towards oneself and the world around. It includes such related qualities as outgoing, energetic, gregariousness, assertiveness, excitement seeking, warmth, activity, positive emotions, sociability, tendency to seek stimulation in the company of others and talkativeness. Agreeableness defines as the tendency to get along well with the people around. It has a tendency to be compassionate, friendly and cooperative rather than suspicious and antagonistic towards others. Conscientiousness is defined as the extent to which a person could be careful, scrupulous and persevering. It includes such qualities as being efficient, organised, the tendency to show self-discipline, act dutifully, aim for achievement, to have planned rather than spontaneous behaviour and are dependable. Neuroticism is defined as the tendency to experience negative emotional states and view oneself and the world around negatively. It includes qualities such as being sensitive, nervous, having the tendency to experience unpleasant emotions easily such as anger, anxiety, depression or vulnerability. It also refers to the degree of emotional stability and impulse control. Openness to experience is defined as the extent to which a person could be original, open to a wide choice of stimuli, broad interests and willingness to take risks. It includes the qualities such as being inventive, curious, having an appreciation for art, emotion, adventure, unusual ideas, curiosity, and a variety of experience. It reflects the degree of intellectual curiosity, creativity and a preference for novelty and variety.

2.2   Brand personality

The physical products carry brand symbolic meaning that refers to the physical product and are described according to the human characteristic (brand personality). The means to prove that brand personality positively influences consumer preference is done through congruence effect study. Based on their own self image, products are symbols for consumers to convey something about themselves to others (Ivens and Valta, 2012). Products are used as tools of self-expression (Tian and Belk, 2005). And the self-impression is formed based on the possessions (Gosling et al., 2002; Tian and Belk, 2005). Aaker's (2001) exploratory and confirmatory factor analyses yielded that brand individuals comprised five dimensions: sincerity, excitement, competence, sophistication and ruggedness. Sincerity comprises characteristics like being domestic, honest and genuine. Excitement consists of characteristics like being trendy, spirited and up-to-date. Competence includes characteristics such as being reliable, responsible and

efficient. Sophistication is characterised by being pretentious, glamorous and charming. Ruggedness incorporates characteristics of being tough, strong and outdoorsy.

Most products say something about the social world of those who consume them. Consumers search for a product which has images compatible with their perception of self. The greater the consistency of self-concept with a particular product, the greater the likelihood the product will satisfy a consumer (Kum et al., 2012). Cervone and Pervin (2013) state that in the self enhancement theory, the individuals seek to preserve and enhance their self image by purchasing certain products. Brands serve as social symbols that comprise shared meaning and individual consumption behaviours that contribute to the preservation and enhancement of the customers' self-concept (Gammoh et al., 2014). Symbolic benefits represent the desire for a brand that fulfills self-enhancement needs. In the symbolic communication process, brands represent intrinsic values, such as self-expression, as well as, extrinsic values such as prestige. These depend on whether the individual is communicating with itself or in the social surrounding. Consumers desire an affiliation with others through brand communities (Kum et al., 2012). Consumers long to have an affiliation with consumer tribes (Cova and Cova, 2002). Young people make use of symbolic consumption for identity purposes (Piacentini and Mailer, 2004).

2.3   Brand purchase

The consumers' perceptions of products as controversial can affect purchase decision (Alamro and Rowley, 2011). Daneshvary and Schwer (2000) said the greater the interaction with a group or association, the greater the likelihood of affiliation and positive influence is expected with the intention to purchase. Previous studies show that consumers respond to brands during the decision-making process in two ways, i.e., cognitive and emotional that is referred to as 'thinking and feeling' aspects (Sweeney and Soutar, 2001). The consumers' perceived 'emotional value' refers to their affective reactions to a brand. Importantly, emotional response to a brand is a strong predictor of purchase intention (Morris et al., 2002) and account for more than twice the variance of cognition. Knight and Kim (2007) indicate that emotional value had a significant positive effect on purchase behaviour consistent with other researchers who found that emotional factor encourages purchase intention.
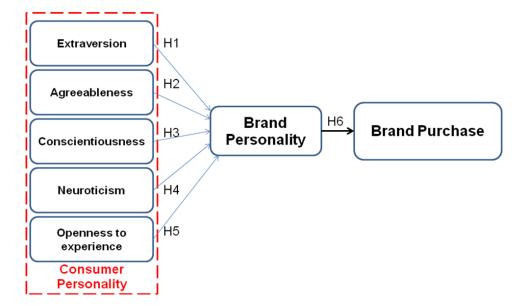
The study of self-concept is significant and relevant to the understanding of consumer behaviour, as purchases made by consumers are directly influenced by the individual's perception of own personality (Tseng and Lo, 2011). Consumers will decide not to buy if the action is not consistent with their perception about themselves. Purchases and consumptions are a good vehicle for self-expression, so they buy products perceived as similar to their own self-concept (Su and Tong, 2015). Self-concept is the determination of the degree of consistency or harmony between the self-perception of an individual with other things in comparison. The goal for consumer behaviour is to improve self-image and attitudes to ensure shoppers enjoy the benefits expected to influence their decision to come back in the future, and what they'll say to others about the shop (Ibrahim and Najjar, 2008). The buying decision is influenced by the social value about whether the product is consistent or inconsistent with the norm of the individuals' reference groups that either they belong to or aspire to be in Gammoh et al. (2014).

2.4 Conceptual framework and hypotheses

Based on a review of the literature, a research framework is developed to identify the relationship between consumer personality and brand personality. The identified concept will be further studied on the differentiation influence it has on the brand purchase decision-making. The research framework (Figure 1) includes Big Five trait theory dimensions (extraversion, agreeableness, conscientiousness, neuroticism and openness to experience) of Costa and McCrae (1992) and Aaker's (1997) five brand personality dimensions (sincerity, excitement, competence, sophistication and ruggedness). The objectives of this study are to analyse the extent to which consumer personality significantly has a relationship towards brand personality, and analyse the differentiation impact the brand personality has on brand purchase decision-making. Therefore, six hypotheses are defined as per below:

H1   Extraversion influences brand personality.

H2   Agreeableness has an impact on brand personality.

H3   Conscientiousness has an effect on brand personality.

H4   Neuroticism significantly influences brand personality.

H5   Brand personality is influenced by openness to experience.

H6   Brand purchase is differentiated by mobile services brand personality.

Figure 1   Research framework (see online version for colours)

3   Methodology and data analysis

3.1   *Questionnaire and data collection*

A questionnaire was developed for collecting empirical measures of consumer personality, brand personality and brand purchase variables. Consumer personality constructs, i.e., extraversion, agreeableness, conscientiousness, neuroticism and openness to experience, were measured using the five-factor inventory (NEO-FFI) scale developed by Costa and McCrae (1992). This original instrument had twelve items for each of the five personality dimensions that add up to a total of 60 items. Brand personality was measured using the five-dimension scale developed by Aaker (1997). This original instrument has a total of 42 items for the five dimensions of brand personality. The rest of the questionnaire was formed by adopting the recent questionnaire on the research done by Lee (2009). The questionnaire firstly measured the consumer personality dimensions as perceived by the respondents for group characteristics and measurement. Secondly, the questionnaire tested the respondents on the brand personality of their choice of mobile service provider. The questions were designed to be structured as closed questions. However, the respondents were given the option to choose from a number of defined response choices consisting a seven-point Likert scale ranging from strongly disagree to strongly agree.

The questionnaire consisted of demographic information of the respondents including age, gender, marital status, ethnicity, highest level of education, current occupational position and monthly income.

The demographic variables were measured by using close-ended multiple-choice format for analysis. In addition, the questionnaire examined consumer personality from the respondent's perception. The questionnaire ended with the last sector, whereby the respondents were asked based on their perception of the brand personality of their choice of mobile service provider.

This study has obtained the quantitative data by random samples from the Klang Valley to discover the interrelations of self-concept between brand personality and consumer personality towards the brand purchase of mobile services. Considering sampling constraints, a combination of cluster area sampling and convenience sampling method was used. This group of respondents represented Klang Valley, as an urban geographical cluster sample. The study was mainly focused on working young adults. This study was conducted with the belief that targeted working young adults will give the best input of mobile services brand knowledge they have towards the mobile services brands. This, in turn, will increase the rate of the usable questionnaire for later analysis and minimise the failure rate of accuracy. Cluster area sampling is deemed useful to support this study in order to ascertain and describe the characteristics of the independent variable dimensions, specifically in the Klang Valley. The use of cluster area sampling is common practice in other past researches (Krishnan and Hartline, 2001). Finally, the random sampling in the Klang Valley is collected from 103 respondents.

3.2 Descriptive statistics

An analysis on the demographics of respondents who participated in the questionnaire revealed that most of the respondents aged between 31–40 years old made up 43.7%, followed by 21–30 years old at 39.8% and the remaining 14.6% consisted of respondents aged above 41 years old. Unintentionally, 65% of the respondents were female, mainly because females were more willing to participate. 51.5% of the respondents were married while 45.6% were single. The remaining 3% were divorcees. In terms of the ethnicity composition of the respondents, the majority of them were Malay (63.1%), followed by 24 Chinese (23.3%), five Indians (5%) and 8.9% foreign respondents. It might reflect the actual overall ethnicity of population in Malaysia which consists of three major groups. With regards to the education level of the respondents, the majority of them (72.8%) hold degree or professional certificates and 19.4% were postgraduates or doctorate graduates. The remaining 7.8% respondents were certificate or diploma holders. With the education composition, the respondents should be able to comprehend the questionnaires given. The occupational position composed of 58.3% executives, consistent with the education level composition. 33.0% were at middle management positions. Out of the 103 respondents, there were three top management positions participating in this survey. The other 5.8% were the non-executives. The statistics on the position of respondents may also relate closely with their monthly income. The result showed that half (48.5%) of the respondents, whom were at the executive level, earned RM 2,001 to RM 5,000. 23.3% of the respondents who held the position of middle manager earned RM 5,001 to RM 8,000 monthly, and 9% of the respondents earned less than RM 2,000 monthly. The results also showed that 11 of the respondents earned more than RM 10,000 monthly, compared to their same level of peers.

3.3 Reliability test

The most commonly used statistic, Cronbach's coefficient alpha, was employed to test the reliability of variables and questionnaire. According to the result of the reliability test (Table 1), all Cronbach's alpha values are above the recommended level of 0.7 (Hair et al., 2010), suggesting very good internal consistency and reliability for the scale with this sample, except for agreeableness at 0.626.

Table 1 Reliability test

Variables	No. of items	Mean	SD	Cronbach's alpha
Extraversion	12	4.7775	0.739	0.810
Agreeableness	12	4.6553	0.579	0.626
Conscientiousness	12	4.7257	0.716	0.738
Neuroticism	12	4.3584	0.841	0.792
Openness to experience	12	4.8989	0.747	0.778
Brand personality (DV)	42	4.8210	0.754	0.951

Table 2   Pearson moment correlations for consumer personality and brand personality

		Brand personality	Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness to experience
Brand personality	r	1	.449**	.287**	.525**	.351**	.394**
	p		.000	.003	.000	.000	.000
Extraversion	r		1	.363**	.627**	.412**	.570**
	p			.000	.000	.000	.000
Agreeableness	r			1	.520**	.407***	.445**
	p				.000	.000	.000
Conscientiousness	r				1	.523**	.552**
	p					.000	.000
Neuroticism	r					1	.352**
	p						.000
Openness to experience	r						1
	p						

Note: **Correlation is significant at the 0.01 level (two-tailed).

3.4 Pearson moment correlations

Pearson correlation analysis was utilised to describe the strength and direction of the linear relationship between two variables. Table 2 provides correlation coefficients (r) between each pair or variables listed and the significance level (p-value). For the results, it shows all positive correlations between the variables, which indicate that as one variable increases, so do the other variables. The Pearson correlation coefficient of +0.449, indicates a medium relationship strength between extraversion and brand personality, while the p-value = 0.000 (< 0.05) indicates a statistically significant and confidence result. If the particular consumer outwardly prefers to express himself/herself towards their surroundings, he/she will put higher priority on their perception on the brand of the mobile service they purchased. The results suggest that the extraversion of the consumer personality can be utilised to better communicate to a selection of mobile services brand personality. The Pearson correlation coefficient of +0.287, indicates a weak positive relationship between agreeableness and brand personality, and the p-value = 0.003 (< 0.05) indicates a statistically significant and confidence result. If the particular consumer is more compassionate and inclined to be more accommodative towards his/her surroundings, he/she will put higher priority towards the brand of the mobile service that they purchased. The results suggest that the agreeableness of the consumer personality can be utilised to better communicate to a neutralisation or normalisation of mobile services brand personality.

The Pearson correlation coefficient of +0.525, indicates strong positive relationship between Conscientiousness and brand personality, while the p-value = 0.000 (< 0.05) indicates statistically a significant and confidence result. The more self-disciplined the particular consumer is, the higher the focus put towards the brand of the mobile service he/she purchased. This suggests that the conscientiousness of the personality of consumers can be utilised to better communicate to as election of mobile services brand personality. The Pearson correlation coefficient of +0.351, indicates medium positive relationship between neuroticism and brand personality, and the p-value = 0.000 (< 0.05) indicates statistically a significant and confidence result. If the particular consumer feels more vulnerable about themselves, the higher focus is put towards the brand of the mobile service he/she purchased. The results conclude that the neuroticism of the personality can be utilised to better communicate to a reinforcement of mobile services brand personality. The Pearson correlation coefficient of +0.394, indicates medium positive relationship between openness to experience and brand personality, while the p-value = 0.000 (< 0.05) indicates a statistically significant and confidence result. The more innovative and curious the particular customer is, the higher the focus put towards the brand of the mobile service he/she purchased. The results suggest that the openness of the consumer personality can be utilised to better communicate to a neutralisation or normalisation of mobile services brand personality.

3.5 Multiple regression analysis and hypotheses testing

The multiple regression technique was used to test the hypotheses of the direct relationship between the independent variables of the consumer personalities' constructs namely extraversion, agreeableness, conscientiousness, neuroticism and openness to experience and brand personality and how independent variables predict the dependent variable. The multiple regressions help to identify the degree and the direction (positive

or negative) of the relationship between several independent variables and the dependent variable (Hair et al., 2010). To interpret the results of the multiple regression, it is very important to refer to the value of the unstandardised (b) and standardised beta (β) regression coefficients. According to Hair et al. (2010), the regression coefficient (b) shows the estimation of the value of direct association with the independent variable. In other words, it is used to select the best predicted variable based on the value of the regression coefficient. The greater the value of correlation coefficient, the stronger the independent construct in predicting the dependent variable. While the standardised coefficient beta (β) helps to compare the direct effect of the independent variables individually on the dependent variable, and will be able to determine which independent variable has the highest impact on the dependent variable (Hair et al., 2010).

Table 3   Results of multiple regression – effect of direct predictors vs. brand personality

Predictor variables	*St. beta*	*T-value*	*Collinearity statistics*	
			Tolerance	*VIF*
Extraversion	0.151	1.304	.634	1.184
Agreeableness	–0.026	–0.251	.839	1.152
Conscientiousness	0.345	2.738**	.781	1.593
Neuroticism	0.084	0.833	.844	1.351
Openness to experience	0.100	0.902	.703	1.646
Adj. R^2	0.385			
F	127.104***			

Notes: ***Significant at $p < .001$. **Significant at $p < .05$.

As seen in Table 3, the model presented the five independent variables (extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience) with one dependent variable (brand personality) to determine the total variance explained by all the independent variables. The F value was calculated and the regression model found it statistically significant at (F value = 127.104, $p < 0.000$ less than .01). It is clear from the results that conscientiousness contributed to the prediction of the dependant variable with the largest beta coefficient = 0.345. This variable, conscientiousness, makes the strongest unique contribution to explaining the dependant variable, brand personality, when the variance explained by all other variables in the model is controlled. P-value for conscientiousness = 0.007 (< 0.05) suggests a statistically unique contribution to the prediction of the dependent variable. The results indicate that mobile users with higher self-discipline, who are more organised and aimed for achievement in life, will pay better attention on the brand personality of the mobile services. It can be further explained that as mobile service is still indicated as an important medium of telecommunication, the functional aspect of it still plays the biggest trigger in indicating the brand of choice. The mobile services brand, that is more appealing in terms of service deliverance, is perceived as providing the needs in helping them to achieve their goals in life. The other variables make less strong unique contributions to the equation. Their p-values > 0.05 indicate non-significant unique contribution to the dependent variable that may be due to overlapping with one another. R^2 value = 0.385 indicates that 38.5% of variance in mobile services brand personality is explained by the model.

3.6 ANOVA test

For purposes of examining differences across brand purchasing of mobile service in Malaysia, the ANOVA test was conducted to compare the means of the ratings of the three main mobile operators namely Celcom, Digi and Maxis. The results of the ANOVA test (Table 4) suggest that there is no significant difference among the mean scores on the mobile services brand personality for the three mobile services brands. Levene's test for homogeneity of variances shows no violation on the assumptions of homogeneity of variance. The F ratio indicates there is more variability between mobile services brands (due to the independent variables) than within each mobile services brands (defined as error due to chance). These mobile services brand personality profiles show no point of differentiation corresponding to the choice of mobile services brand by the consumers, which indicates the problem in the way the Malaysian mobile companies emphasise the importance of their brand personality in their marketing campaigns and strategies. Even though Celcom shows higher mean value than the other two brands, but the overall results do not statistically show significant differentiation amongst the mobile services brands. Consumers are unable to relate their perceived brand personality towards the selection of the mobile services purchased. To sum it up, there is no significant difference between mobile services brands purchased and the perceived mobile services brand personality.

Table 4 ANOVA analysis for the prediction of brand purchase

		N	*Mean*	*Std. deviation*	*Std. error*
Brand personality	Celcom	50	5.4000	.63888	.09035
	Digi	16	4.9375	.68007	.17002
	Maxis	37	5.2432	1.16441	.19143
	Total	103	5.2718	.87665	.08638

4 Conclusions

4.1 Discussion

The purpose of this research is to study the relationship between consumer personality and brand personality amongst consumers and explore the differentiation impact towards the brand purchase. The focus is to understand the brand personality of the mobile communication service provider as perceived by the mobile users and the degree to how that differs the consumers' selection of the brand to match the consumers' own personality. The relationship would indicate a distinctive aspect of the mobile services brand personality.

The conceptual and empirical analysis from the study suggests that the consumer personalities' dimensions have a significant relationship with the brand personality based on the perception of the respondents. The constructs were found to be strong and positive. The results of the study suggest that the 'extraversion', 'conscientiousness' and 'neuroticism' characteristics of the consumer personality can be employed to better communicate to a selection of mobile services brand personality. To the same extent, the 'agreeableness' and 'openness' characteristics of the consumer personality can be utilised

to better communicate to a normalisation or neutralisation of mobile services brand personality.

The study results signify the individual's tendency to compare the image of them with the image of the mobile services brand, as confirmed already by earlier research (Gammoh et al., 2014; Lin and Huang, 2012; Kim et al., 2008). Two basic driving forces for such are either trying to preserve their image for a self-consistency motivation or to enhance their image via self-esteem motivation. In this study, the statistical results indicate a positive and significantly strong relationship between consumers that have self-discipline and their perception on the importance of mobile services brand personality. The more they are longing for achievement in life, the higher their perception towards the value of brand personality of the mobile services. Despite the discussion on the symbolical benefits for mobile services in Malaysia, the service is still considered as technologically advanced for the masses. The usage is still towards the functional benefit, which explains the most significant dimension of the consumer. Significantly, the consumers still perceive mobile service as the medium for telecommunications to serve professionals rather than as a symbolical benefit for social agendas.

The other dimensions namely extraversion, agreeableness, neuroticism and openness to experience, do significantly have a positive relationship towards mobile services brand personality, but the unique contribution towards the dependant variables are less substantial and overlap between each dimensions. Extraversion is positioned as the second significant variable, which explains the symbolical benefit of the mobile services. Consumers who appreciate outwardly display towards their surroundings put high emphasis on their mobile services brand selection. This supports the earlier study that consumers are inclined to maintain and enhance social approval by purchasing and utilising certain brands (Alamro and Rowley, 2011; Govers and Schoormans, 2005; Ivens and Valta, 2012).

Results indicate that consumers examine the perceived Brand Personality of the mobile service to a certain extent to relate with their own possessed personalities. Since the mobile service is still perceived at its functional level, the ability of the mobile services brand to provide the level of services, which are aligned with the consumers' longing for achievement, significantly upholds their preference towards the mobile services brand. The group of consumers who have an extrovert perception in life will appreciate a mobile services brand that could self-reflect and enhance them socially. As Huang et al. (2012) confirms, one substantive implication from this is that marketers' focus could shift from using brand personality as an image generation and possible segmentation tool to investigating the personalities of their target consumers, in order to deliver more relevant brand image communications that are associated with the personalities of their target consumers. In doing this, however, they could remember that the formation of brand personality is a co-creation process between consumers and brands.

The results of this study indicate no differentiation impact for mobile services brand personality on the brand purchase decision-making to choose the mobile services brand that matches well with their personality. This finding is consistent with a study by Tseng and Lo (2011) who claimed when users are satisfied with their current mobile model, they are not willing to upgrade to a newer generation model. However, this result is not aligned with some of prior studies (e.g., Aaker, 1997; Govers and Schoormans, 2005; Lee, 2009; Su and Tong, 2015). The results disprove the proposal that consumers prefer products with mobile services brand personalities that match his/her own personalities. It

holds the suggestion that consumers tend to hold favourable attitudes toward mobile services brands that match their own personalities, but it does not attest to the fact that customers purchase mobile services brands based on the mobile services brand personality. The findings may have been neutralised by the company's marketing communications and/or moderated by the mixture of different products and brands of the mobile services. In other words, the effect of brand personality on mobile service was moderated by marketing communications, which may be the limitation of the results and findings. There are two possibilities for the unfavourable results: first, that there is by nature no existing brand differentiation amongst the Malaysian mobile players themselves. This is due to the lack of proper marketing communication strategies or a well-defined brand proposition. The other possibility is that the Malaysian mobile consumers in reality pay less attention to brand differentiation, regardless of the successful branding because it carries the least weightage in their purchase decision-making.

4.2 Managerial implications

The current research also provides practical implications for marketers and mobile services brand managers. Practitioners view brand personality as an efficient way to distinguish a brand from its competitors, thereby enhancing the effectiveness of advertising and marketing communications. Because of proliferation and intense competition, it is difficult for advertisers and brand managers to differentiate brands on the basis of functional attributes alone. Knowledge about brand constructs in terms of its personality and image will help achieve successful differentiation. Brand personality not only plays an important role, but also has profound influence on a company's performance. By using various marketing approaches, mobile services providers may convey their brand personality to consumers and have the consumers of varying personality traits believe and recognise the company's brand personality; thus, consumers may develop some kind of relationship with the brand, which will further influence their brand purchase decision. The shaping of distinct brand personality may add value to a company's brand.

Based on the findings of this research, mobile service providers must strategically project their brand images to be aligned with their target consumer personalities, and are recommended to explore the conscientiousness and extraversion characteristics further. Subsequently, mobile service providers are to provide a vehicle for consumers to express distinguishable brand personality through marketing communications to reposition their mobile services brand to be noticeably different from their competitors. Thus, a well-defined brand personality should be the main and most important objective for the brand managers of Malaysian mobile service providers.

Moreover, the consumer personality's significant relationship with mobile services brand personality should be discussed or measured interchangeably. This information is quite important and has strong implications for the content and tone of voice for marketing communications messages. Also, different consumer personality constructs could be important to different target market segments. Besides, since brand personality is the soul of a brand, it is usually derived from the firms' marketing communications. It is possible to identify the target consumers who possess these personality characteristics, namely conscientiousness and extraversion, from a large population for targeting and

marketing certain mobile services brands that match well with the perceived personalities.

Finally, successful brands are differentiated from their lesser known counterparts due to their robustness, distinctiveness and consistency. Thus, an important objective for brand management is the formation of well-defined brand personality. Brand personality measures potentially do not stimulate what consumer personality measures do. The role of brand image then is to provide a descriptive overview of brand personality. As the symbolic aspects of brands become increasingly more important, there is a strong need to improve understanding and measurement of symbolic brand effects. Toward these ends, it would be highly appropriate to be more precise in defining the role of and relationship between the two symbolic constructs: the consumer personality and brand personality.

4.3   *Limitations and future research*

There are a number of limitations worthy of improvement and future research. There is still much to learn about the dialogue between marketers and consumers, and that has been the main focus of research in marketing communications. What has been the limitation in this study is the information on the process of selecting a brand. Brand personality is not fully formed by itself, nor can it be calculated in the brand manager's office. Part of the dialogue and part of the brand developing must involve the processes during the brand purchase. Therefore, it is important to facilitate the dialogue between company and the customer in the most optimal way possible by incorporating different aspects of the consumer's personality and the brand personality. Moreover, the size sample and the respondents' profiles may limit the generalisation of the conclusion. 103 respondents might be somewhat small as a sample to identify common underlying factors for the results. The hindering reason might be due to the length of the questionnaire that requires inclusion of 60 items under consumer personality variables and 42 items under brand personality variables. Finally, the study was done based on the dimensions suggested by the Big Five trait theory and Aaker's (1997) brand personality. The items may be culturally insignificant to be adopted in the Malaysian context, as per explained in a study (Aaker et al., 2001), whereby cross cultural research on Aaker's approach resulted in considerable differences among cultures.

In addition, this study employed a self-report instrument to measure the respondents' personality. Self-report instruments in personality measurement have weaknesses, since respondents tend to report positively about themselves as claimed by Cervone and Pervin (2013). Although the survey was anonymous, respondents may have scored themselves high on certain dimensions conventionally perceived as desirable characteristics. Future research could employ triangulation by asking others to report on individuals instead of self-reporting by respondents. The use of convenience sampling in this study is also a limitation that can be addressed in future studies. Besides, although hypotheses were tested for several personality dimensions, this research just relied on one product, i.e., mobile services. Further research with a larger set of product/service categories is needed to identify the degree of generalisability of these findings. Moreover, the associative linkages we tested in the current research need to be replicated in other cultural contexts and settings before any cross-cultural generalisation of the findings can be made.

The following recommendations are brought up for those researchers who are interested in conducting subsequent studies in the related field. Since this study lacks in terms of understanding the process during the brand purchase, further research will need

to be carried out on this particular process as a means to understand the dialogue between the company and the customers to make the brand alive. In addition, future research that examines the study involved with service brands differentiation might possibly analyse the company's brand-building activities. Furthermore, the differentiation among the mobile brands can be further enhanced by engaging respondents from other states, for instance, by involving a larger geographical cover area to generalise the critical scenario in Malaysia. The study could involve people from rural or non-urban areas, which cover a bigger percentage of the Malaysian population, to be able to make a better generalisation on the conclusion. Moreover, this study only gives an empirical analysis on the mobile services industry, but the researchers doing follow-up research may apply the model to other industries for further verification, so that the model can be readily adapted to other applications. Besides, additional studies should explore on consumer characteristics (demographics, personality, interests, etc.), new brand personality traits and measures. At last, considerable research into consumer behaviour has examined the self-expressive role of brands, but has found little support for the premise that brand personality has an influence on consumer attitudes. It is suggested that consumers are involved in influencing how a brand personality is perceived. This is in contrast to other research and propositions, which suggest that brand personality is created by how marketers and advertisers intend to project it. The findings suggest that when a brand commands a high preference, the preferred characteristics of consumer personality actually has an influence over its perceived brand personality – provided that the consumer has built a positive relationship with the brand and then projects his/her personality on to the brand.

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