

# Investigating Product Involvement Issues for Mobile Phone Services: A Study of Filipino Mobile Phone Users

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The mobile phone market in the Philippines is an interesting proposition. While the very extensive usage of mobile phone communications has earned the country a reputation of being the “texting capital” of the world, the emergence of next generation mobile communication devices and communication technology platforms has yet to be fully understood. This study aims to determine the particular levels of involvement Filipino mobile phone users place on such next generation mobile phone products and services. This study compares the levels of involvement on five mobile phone services across two different demographic factors – regular mobile phone vs. smart phone users and postpaid vs. prepaid subscribers. The study shows that being technologically more complex, smart phone users place higher levels of involvement on the services available through their devices. The same is true with higher-priced items. This implies that marketers and advertisers should seriously reconsider their allocation of resources to enable consumers to know and learn about mobile phone products and services with respect to the levels of involvement that users place on each one.

*Keywords:* Product involvement, consumer involvement, mobile phones, product attributes, service attributes

## 1 Introduction

Mobility is becoming an increasingly prevalent force shaping consumer lifestyles and interactions (Donner, 2008; Mort & Drennan, 2007; Skierkowski & Wood, 2012), encouraging the market for such technologies (Gerpott, 2010; Yoo, Lyytinen, & Yang, 2005). Mobile phones are one of the most conspicuous examples achieving a large penetration rate in many markets (Kimiloglu & Nasir, 2010). Its growing and evolving development to connect to people in different ways has enabled it to become more than just a communication device (Walsh, White, Cox, & Young, 2011), and this phenomenon is very much observable in the Philippines.

The Philippines is home to a significantly huge telecommunications market (Donner, 2008; "Globe Telecom, Inc. Annual Report," 2011; "Philippine Long Distance Telephone, Co. Annual Report," 2011; "Telecoms industry report: Philippines," 2010). Statistics show that the information and communications technology (ICT) market in the country is estimated at US\$2.8 billion in 2009 (1.7% of GDP). The number of mobile phone subscribers is estimated at 77 million in 2009, doubling from 34 million in 2005. Marketresearch.com further estimated that subscribers would increase to 115 million by 2016 from 87 million in 2010. It is expected that 91.5% of the total population of the Philippines owned a mobile phone in 2011, up from 60% in 2005. The Philippines has been dubbed as the “texting capital of the world” because of the massive daily volume of its text (short message services or SMS) transmissions by high- and low-income groups alike (Celdran, 2002; Lallana, 2004; Librero, Ramos, Ranga, Triñona, & Lambert, 2007; Pertierra, 2005). This reflects the significant acceptance of the Philippine market towards mobile phones.

However, there are still emerging technologies that are not fully grasped by the country’s market (Gerpott, 2010; Librero et al., 2007; "Telecoms industry report: Philippines," 2010). Advanced functions such as face-to-face interaction available on multimedia (MMS), 3rd-Generation (3G) mobile phones are still relatively rare in Asia (Donner, 2008; Kimiloglu & Nasir, 2010; Liao, Tsou, & Huang, 2007), which can be difficult for consumers to grasp because they have never experienced it. Marketresearch.com further stated that 3G subscribers in the country only account for 12.2% of the

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market. Philippine Long Distance Telephone Company (PLDT), through its mobile provider Smart Communications, and Globe Telecoms, the Philippines' biggest telecommunications firms, have recently introduced such technologies that allow users to download music and video, to send and to receive e-mail, and enable Worldwide Interoperability for Microwave Access, or WiMAX (Kimiloglu & Nasir, 2010; "Telecoms industry report: Philippines," 2010). As of 2011, Smart Communications reported a cellular subscriber base of 63.7 million ("Philippine Long Distance Telephone, Co. Annual Report," 2011) while Globe Telecoms reported 30 million subscribers ("Globe Telecom, Inc. Annual Report," 2011). Hence, it will not be long before subscribers will acknowledge that mobile phones will become a part of everyday lives, both in the business setting and at the home (Liao et al., 2007; Mort & Drennan, 2007; Walsh et al., 2011).

However, despite advances in marketing and advertising, companies still tend to deploy traditional methods and techniques to push their products and services to the market. Furthermore, as previously mentioned, these growing mobile technologies are still in their infancy stages in the Philippines. These observations imply that the knowledge regarding these growing technologies have not yet entered mainstream consumer mindsets. This gives an opportunity for this research to shed further light on possible consumer behaviors and insights regarding mobile phone technologies for the benefit of both marketing researchers and practitioners.

## 2 Research Objectives

Most mobile phone users find the market very complex, with many actors playing different roles in shaping it (Yoo et al., 2005). On one hand, consumers are not sure what is going on (Turnbull, Leek, & Ying, 2000). On the other hand, marketers always have a problem on how they can pursue consumers to perceive and remember information related to products and services that they sell (Ghafelehbash, Asadollahi, & Nikfar, 2011). Given this, Filipinos now have so many choices that the competition is currently boiling down to price vs. quality dimensions.

Furthermore, as evidenced by the growing trends and movements in the market ("Telecoms industry report: Philippines," 2010), the nature of the mobile phone market requires consumers to exert extra effort in learning about the existing products and services (Turnbull et al., 2000; Yoo et al., 2005). Learning these new technologies also involve creating and manifesting consumption styles to reflect consumer adoption (Mort & Drennan, 2007). Especially with the introduction of newer, more advanced types of mobile phones—namely smart phones such as the Apple iPhone and the Samsung Galaxy—better features, functions, and services have been made available to consumers. Two of the most prominent features of smart phones are enabling easier Internet browsing and access to a wide array of programs called applications. These applications include games, mobile banking and financial services, multimedia editing, location tracking services, and social networking. This also means that the breadth and depth of information available to them has exponentially increased. Therefore, if the competition is currently based on predominantly price vs. quality dimensions, this runs the risk of other factors affecting purchase decision-making processes being overlooked. This, in turn, may result in the mobile phones not being marketed properly.

This study aims to determine whether there are significant differences in consumers' involvement attitudes and behaviors across some selected demographic and product-related factors. Previous literature posited that involvement can be influenced by several factors inherent in the individual (Ghafelehbash et al., 2011; Kimiloglu & Nasir, 2010; Laurent & Kapferer, 1985; Liao et al., 2007; Skierkowski & Wood, 2012) and can be based on several product characteristics, attributes, and performances other than quality (Parasuraman, 1997; Seva & Helander, 2009; Woodruff, 1997). In other words, this research posits that there will be different degrees of involvement towards a particular additional product or service, and that difference is influenced, in this case, by the type of the main product or service currently owned.

In this perspective, this study further argues that knowing and learning about these factors will give marketers and advertisers better understanding and insights on how to further tailor their strategies to appropriately and accurately appeal to their customers' needs and wants. Marketers and advertisers are the major commercial information source, whose primary function is to inform consumers of the product or service offering (Kotler & Keller, 2006). In other words, they can better allocate their marketing resources depending on the level of involvement their customers put into a

particular product or service offering. Products and services that require or induce a higher level of involvement should be allocated more resources for marketing and advertising to give customers better and more detailed information (Kwon & Chung, 2010; Ratchford, 1987). More involved consumers tend to incur a higher overall customer cost to evaluate, obtain, use, and/or even dispose of a product or service offering (Kotler & Keller, 2006), because they place more importance on the product or service (Ratchford, 1987). This provides more opportunities for firms to promote and sell to such consumers.

### **3 Literature Review**

#### **3.1 Market Segmentation Practices**

Market segmentation is described as a marketing strategy (Dickson & Ginter, 1987; Kotler & Keller, 2006) using information about market segments to design a program to appeal to a specific customer group (Kimiloglu & Nasir, 2010). It has been an important issue for both researchers and practitioners since it provides a better position to evaluate market opportunities, formulate adjustments in product and selling appeals, and develop programs based upon a comprehensive understanding of the consumer response characteristics (Kotler & Keller, 2006; O'Connor & Sullivan, 1995). Simply put, it is logical that marketers know and learn about the different facets that influences whatever consumer reactions, attitudes, and behavior that are conveyed through their interactions with their products and services.

One interesting notion about this study on market segmentation is the inclusion of involvement (Kapferer & Laurent, 1986; Kimiloglu & Nasir, 2010). Involvement is defined in this research as the means to measure these reactions, attitudes, and behaviors. Consumers' involvement orientations in purchasing a mobile phone are becoming just as important as the set of product features evaluated (Bauer, Reichardt, Barnes, & Neumann, 2005; Ganesh, Arnold, & Reynolds, 2000; Kapferer & Laurent, 1986; Roach, 2009) because it affects the information process, decision making and reaction to the marketing activities (Ghafelehbash et al., 2011; Lin & Chen, 2006; Ratchford, 1987; Rothschild, 1984).

#### **3.2 Theoretical Foundation: Defining Involvement**

Initially, involvement has been problematic to define (Kapferer & Laurent, 1986) because it is applied in many fields (Ghafelehbash et al., 2011; Roach, 2009) and in various situations (Von Riesen & Herndon, 2011). Generally speaking, involvement is defined as a consumer's understanding or recognition of a specific product (Ratchford, 1987; Traylor, 1981). There have been many documented applications of involvement, such as in terms of personal relevance, invoked interest, risk evaluation, activation levels, and goal-oriented arousal capacity (Kapferer & Laurent, 1986; Ratchford, 1987).

One important aspect of involvement is that it requires product differentiation and this increases with differentiation among alternatives (Gardner, Johnson, Lee, & Wilkinson, 2000; Laurent & Kapferer, 1985). Product differentiation strategies actually influence these dimensions of involvement by influencing the way they respond to marketing stimuli (Gerpott, 2010; Kwon & Chung, 2010; Von Riesen & Herndon, 2011). For consumers to respond effectively, good information searching, information processing, and decision-making are required (Ghafelehbash et al., 2011; Kotler & Keller, 2006; Lin & Chen, 2006; Rothschild, 1984). As such, high involvement requires a decision process characterized by active learning and conscious evaluation of the available alternatives while low involvement requires simpler and more passive attitudes and behavior (Gardner et al., 2000; Kwon & Chung, 2010; Mort & Drennan, 2007; Ratchford, 1987; Von Riesen & Herndon, 2011). In another perspective, involvement can also range from absolute concentration to complete ignorance (Krugman, 1965; Ratchford, 1987).

Therefore, for this particular study, involvement is further defined as the intensity of consumer attitudes and behaviors (Gainer, 1993; Martin & Marshall, 1999; Ratchford, 1987; Walsh et al., 2011), reflected on the amount of effort exerted to learn about a particular mobile phone and its complementary product and service offerings (Gardner et al., 2000; Kotler & Keller, 2006).

### **3.3 Research Operationalization: Defining Product Features' and Price Levels' Influence on Involvement**

In the recent years, quality alone is no longer the dominant feature in consumers' product evaluation (Parasuraman, 1997; Woodruff, 1997). Consumers' levels of involvement in knowing and learning about a product or service are influenced by several other product attributes and performances (Gardner et al., 2000; Seva & Helander, 2009). Consumers' choices of a product and the subsequent attitudes and behavior are highly influenced by its usability and functionality (Kotler & Keller, 2006; Seva & Helander, 2009), which means that product features play a significant role in this phenomenon.

Moreover, the decision to engage in either high or low involvement can also be influenced by price (Monroe, 1973), owing to the fact that price is a very powerful information cue (Kotler & Keller, 2006; Lichtenstein, Ridgway, & Netemeyer, 1993; Zaichkowsky, 1988). Since price can indicate either the cost of the product or its intrinsic worth, higher-priced items imply that consumers must give more attention to them compared to lower-priced items (Chebat & Picard, 1985; Gabor & Granger, 1965), thus further implying increased involvement in the decision-making process. In other words, higher prices induce higher involvement while lower prices induce lower involvement (Chebat & Picard, 1985) because of the discriminating nature of using price as an information cue (Lichtenstein et al., 1993; Zaichkowsky, 1988).

### **3.4 Hypothesis Development**

The mobile phone market covers both telephone hardware and service providers (Turnbull et al., 2000). Most recently, the advent of new multimedia technologies from these providers has facilitated new telecommunication processes and services (Kwon & Chung, 2010; Mort & Drennan, 2007; Walsh et al., 2011). The generations born in the 1980s and 1990s have been exposed to these new technologies (Liao et al., 2007; Librero et al., 2007; Skierkowski & Wood, 2012).

In order to reflect the effects of product features price on involvement, two different sets of mobile phones were considered in this study: regular mobile phones and smart phones. As previously mentioned, smart phones, such as Apple iPhone and Samsung Galaxy handsets, have distinctively more features and are generally more expensive than regular mobile phones. Smart phones are a type of cellular phones with built-in applications and Internet access on top of digital voice service, text messaging, still and video cameras, MP3 player and video playback ("Globe Telecom, Inc. Annual Report," 2011; "Philippine Long Distance Telephone, Co. Annual Report," 2011). Furthermore, the type of subscription was also considered: postpaid and prepaid. Postpaid subscriptions typically entail more product and service offerings and are generally more expensive than prepaid subscriptions. These distinctions are based on how the Philippine mobile phone market has been structured towards its customers ("Globe Telecom, Inc. Annual Report," 2011; "Philippine Long Distance Telephone, Co. Annual Report," 2011; "Telecoms industry report: Philippines," 2010). In other words, these two sets of distinctions were chosen for this study simply because this is how the market is structured by the telecommunication service providers in the Philippines. This study posits that these two groups will produce significant differences in the involvement attitudes because they have different approaches to their decision-making processes. In other words, consistent with the aforementioned impact of product features (Gardner et al., 2000; Kotler & Keller, 2006) and product price (Kotler & Keller, 2006; Lichtenstein et al., 1993; Zaichkowsky, 1988), how a consumer decides on the level of involvement towards a mobile phone product or service will depend on what type of mobile phone he or she currently owns, and what type of subscription he or she currently avails.

H1: Smart phone users and regular phone users will have significantly different mobile phone services preferences.

H2: Postpaid subscribers and prepaid subscribers will have significantly different mobile phone services preferences.

H3: Smart phone users will have a significantly higher product involvement in different mobile phone services than regular phone users.

H4: Postpaid subscribers will have a significantly higher product involvement in different mobile phone services than regular phone users.

## 4 Methodology

### 4.1 Participants

The study yielded 240 valid respondents. The participants were recruited through convenience sampling and were not compensated for their time. The demographics and descriptive statistics for the data collected are shown as follows (see Table 1a).

**Table 1a. Demographic Profiles of Respondents**

<b>Employment Status</b>	<b>Number</b>	<b>Percentage Share</b>
Student	145	60.42%
Employee	95	39.58%
<b>Source of Income</b>		
Allowance	176	73.33%
Salary	64	26.67%
<b>Age Distribution</b>		
Below 18 years old	8	3.33%
18 to 24 years old	96	40.00%
25 to 32 years old	116	48.33%
33 to 40 years old	16	6.67%
Above 40 years old	4	1.67%

In terms of age, most of the respondents fell either in the 25 to 32 years old bracket (48.33%) or the 18 to 24 years old bracket (40.00%). The age profile is consistent with previous studies on the similar topic of mobile phone usage (Gerpott, 2010; Kimiloglu & Nasir, 2010; Liao et al., 2007; Martin & Marshall, 1999; Mort & Drennan, 2007; Walsh et al., 2011) that observed that younger demographics are often more technology-savvy, and therefore more aware and discriminating regarding marketing high-technology products and services. Of the total number of the respondents, 60.42% were students (covering both in undergraduate and graduate programs), and 39.58% were employees. In terms of primary source of income, majority of the respondents (73.33%) relied on allowance (i.e., either from the family or from the scholarship that they have received), while the rest (26.67%) relied on salary.

**Table 1b. Profile of Mobile Phone Ownerships**

<b>Type of Phone Owned</b>	<b>Number</b>	<b>Percentage Share</b>
Regular Phone	104	43.33%
Smart Phone	136	56.67%
<b>Service Provider</b>		
Globe Telecoms	126	52.50%
Smart Telecommunications	79	32.90%
Sun Cellular	26	10.80%
Touch Mobile	9	3.80%
<b>Type of Subscription</b>		
Postpaid	80	33.33%
Prepaid	160	66.67%

Respondents were asked the particular model of mobile phone that currently owned, with 56.6% owning smart phones and 43.33% owning regular mobile phone. A little over half of the respondents (52.50%) are customers of Globe Telecoms, which is not really surprising considering that Globe caters to younger market segments compared to its rival Smart Telecommunications.

Two-thirds of the respondents (66.67%) are using prepaid subscriptions. Prepaid cards have made mobile phone more accessible, with a 28% penetration rate in the early 2000's (Celdran, 2002; Lallana, 2004; Pertierra, 2005). This has subsequently increased, with Globe prepaid services reportedly accounting for 95% of its cumulative mobile subscriber base ("Globe Telecom, Inc. Annual Report," 2011) while Smart's prepaid services accounted for almost 97% of its cellular subscriber base ("Philippine Long Distance Telephone, Co. Annual Report," 2011).

## 4.2 Questionnaire Design

The market's maturity has triggered the search for new revenue streams ("Telecoms industry report: Philippines," 2010). One such example is the rise of mobile Internet services. Globe Telecoms and Smart Communications have even offered packages enabling unlimited Internet browsing for bucket fees. The same goes now for the call and text messaging services. Many of these promotions are offered for a limited time, but subscribers can opt to renew their subscriptions to these services.

Observations from the websites of both Globe and Smart revealed that their service offerings for consumers' mobile phones can be broadly classified into five main services: (1) subscription packages, (2) Internet browsing service, (3) instant notifications subscriptions, (4) phone application services, and (5) promotions and giveaways, otherwise known as giveaways. Subscription packages (MEANPACK) let the consumer choose whether to avail a prepaid or a postpaid subscription, with several subcategories under the postpaid subscription. Internet browsing services (MEANSERV) allow the consumer to avail specific Internet services (e.g., email functions, Internet browsing, social network site access) for a certain fee. Instant notification subscriptions (MEANNOTI) allow the consumer to customize SMS-based communications on a selected range of topics and services such as news headlines, weather reports, traffic updates, entertainment tidbits, and new promotions. Phone application services (MEANAPPL) provide the consumer a channel to download additional functions and applications directly to his or her mobile phone. Promotions and giveaways (MEANFREE) are the service providers' loyalty programs where customers can avail of discounts, giveaways, and promotions to third-party firms such as free movie tickets or restaurant coupons.

These five categories were evaluated based on the respondent answers regarding the level of involvement that they have for each one. Measurement items for the involvement were adapted and summarized from previous studies that evaluated consumer perceptions of product involvement (Kwon & Chung, 2010; Lastovicka, 1979; Warrington & Shim, 2000; Zaichkowsky, 1985).

The study made use of a survey questionnaire, using a seven-point Likert scale (1 = least involvement, 7 = most involvement). There were four question items in the survey, which were asked for each of the five categories. The respondents' level of involvement with each category was measured in terms of the following: (1) on knowing the product or service offering; (2) on using the product or service offering; (3) on keeping up-to-date with the product or service offering; and (4) on keeping and maintaining the product or service offering.

## 4.3 Data Collection

The researcher administered the questionnaire online on February 2012, using a university student and alumni database from the University of the Philippines. The same question items measuring involvement were asked for each of the five product categories that are involved in this study. Invitations to answer the survey questionnaire were sent out to prospective respondents and were posted on online alumni community boards. No identifying information (e.g., names, contact details, etc.) was collected from the respondents, which were assured by the online questionnaire that all responses would be used primarily for academic research purposes. GoogleDocs, which was used for the online questionnaire, automatically recorded and tabulated the responses into an MSExcel spreadsheet, which was then transferred to an SPSS spreadsheet for data analysis using SPSS statistical software.

## 4.4 Data Analysis

**Descriptive statistics of responses.** Prior to hypothesis testing, the collected data was analyzed for descriptive statistics (see Table 2a).

**Table 2a. Descriptive Statistics for All Mobile Phone Users**

Construct Name	Mean	Std. Deviation
MEANPACK (Subscription Packages)	4.7333	1.8226
MEANSERV (Internet Browsing Service)	3.9958	2.1558
MEANNOTI (Notification Subscriptions)	3.8917	1.8417
MEANAPPL (Phone Applications Services)	4.8333	1.6342
MEANFREE (Promotions and Giveaways)	4.9167	1.8063

The overall data shows that promotions and giveaways (MEANFREE) rated the highest level of involvement while the notification subscriptions (MEANNOTI) rated the lowest level. This implies that generally speaking, mobile phone users exert more effort in learning about the promotions and giveaways being offered to them by the service providers more than the other service offerings. This can be explained by the fact that both Smart and Globe offer a very wide range of promotions and giveaways such as discount coupons to retail stores, movie tickets, limited-period subscriptions to unlimited call, text messaging, and Internet browsing, and raffle tickets for high-value prizes or cash. The sheer volume of information alone may be enough to induce a higher level of involvement for consumers to discern which ones to avail. On the other hand, notification subscriptions are observed to be the least advertised and promoted by these firms. Hence, this may explain why there is such a relatively low involvement induced by this particular service.

**Table 2b. Descriptive Statistics for Regular Mobile Phone vs. Smart Phone Users**

Construct Name	Regular Mobile Phone		Smart Phone	
	Mean	Std. Dev.	Mean	Std. Dev.
MEANPACK (Subscription Packages)	4.5865	1.93955	4.8456	1.72671
MEANSERV (Internet Browsing Service)	3.2692	2.07846	4.5515	2.05280
MEANNOTI (Notification Subscriptions)	3.7692	1.75422	3.9853	1.90704
MEANAPPL (Phone Applications Services)	3.8846	1.80241	5.5588	1.01299
MEANFREE (Promotions and giveaways)	5.0481	1.85653	4.8162	1.76730

The results show that smart phone users have higher levels of involvement in four of the five mobile phone services, the exception being promotions and giveaways (MEANFREE). As for smart phone users, phone application services (MEANAPPL) garnered the highest level of involvement while notification subscriptions (MEANNOTI) earned the lowest. This implies that smart phone users are mostly interested in knowing and learning more about the applications available for their phones compared to other types of mobile service offerings from the service providers. Intuitively, this is expected since in the first place, smart phones are widely known for the very wide range of applications that can be installed and used by consumers. This is understandable and most probably expected since smart phones are designed in the first place to support a wide array of applications to extend its functions beyond the usual calling and text messaging communications.

As for regular mobile phone users, promotions and giveaways (MEANFREE) is the one indicating the highest level of involvement while Internet browsing service (MEANSERV) has the lowest level of involvement. This implies that regular mobile phone users are highly involved in knowing and learning more about the promotions and giveaways that their service providers offer. Again, this is understandable and most probably expected, since regular mobile phones do not have sufficient capabilities to support mobile Internet browsing, if they have any at all.

**Table 2c. Descriptive Statistics for Prepaid vs. Postpaid Subscribers**

Construct Name	Prepaid Subscribers		Postpaid Subscribers	
	Mean	Std. Dev.	Mean	Std. Dev.
MEANPACK (Subscription Packages)	4.4188	1.88288	5.3625	1.52090
MEANSERV (Internet Browsing Service)	3.4063	2.09948	5.1750	1.75402
MEANNOTI (Notification Subscriptions)	3.8250	1.73495	4.0250	2.04367
MEANAPPL (Phone Applications Services)	4.6125	1.78740	5.2750	1.16353
MEANFREE (Promotions and giveaways)	4.6625	1.86877	5.4250	1.56525

The results show here that postpaid subscribers exhibit higher levels of involvement in all five mobile phone services. For postpaid users, promotions and giveaways (MEANFREE) also induced the highest level of involvement while notification subscriptions (MEANNOTI) induced the least amount of involvement. This implies that postpaid subscribers exert the most effort in knowing and learning about the available promotions and giveaways offered by the service providers over the other available service offerings.

For prepaid users, promotions and giveaways (MEANFREE) was again the mobile phone service that earned the highest level of involvement while Internet browsing service (MEANSERV) got the lowest. Apparently, similar to the regular mobile phone users, prepaid subscribers exert more effort to learn about the available promotions and giveaways that service providers offer.

Overall, these initial findings suggest that there are more observable differences between types of phones owned (regular mobile phone vs. smart phone) compared to between types of subscriptions (prepaid vs. postpaid). Nevertheless, a deeper analysis of the significance of these differences is required to give further value to this research.

**Factor analysis and reliability analysis.** Since the research measurement instrument was combined from a multitude of previous studies, factor analysis was done. Reliability test for Cronbach's alpha ( $\alpha$ ) was conducted after confirmatory factor analysis. The results show that factors had an alpha greater than 0.70 (see Table 3), ensuring that the data was good enough for the proceeding analysis.

**Table 3. Factor Loading and Reliability Results**

Question Item	MEAN PACK	MEAN SERV	MEAN NOTI	MEAN APPL	MEAN FREE
On knowing the available product or service offering	0.938	0.954	0.940	0.911	0.933
On using a specific product or service offering	0.906	0.968	0.948	0.963	0.965
On keeping up-to-date with the available product or service offering	0.911	0.955	0.959	0.920	0.966
On keeping and maintaining a specific product or service offering	0.875	0.948	0.917	0.938	0.935
Cronbach's $\alpha$	0.928	0.969	0.957	0.950	0.963

## 5 Results

### **Hypothesis 1: Smart phone users and regular phone users will have significantly different mobile phone services preferences.**

In this part of the analysis, differences between the two main demographic groups – type of mobile phone used and type of subscription used – are examined for significant differences. One-way ANOVA was employed for comparing the scores between the two groups of mobile phone users. The ANOVA results show that there is a significant difference in the Internet browsing services (MEANSERV) of regular phone users and smart phone users,  $F(1, 238) = 22.746, p < 0.001$ . There is also a significant difference in the phone applications services (MEANAPPL) of regular phone users and smart phone users,  $F(1, 238) = 83.093, p < 0.001$ . This supports the descriptive figures on the differences in the levels of involvement. Smart phones are designed to support mobile Internet browsing and applications, and these smart phones are specifically marketed for such purposes. However, this also shows that regardless of the type of mobile phone used, there seems to be no significant differences in subscription packages, notification subscriptions, and promotions and giveaways.

**Table 4a. ANOVA Result for Type of Mobile Phone Used**

		Sum of Squares	df	Mean Square	F	Sig.
MEANPACK	Between Groups	3.955	1	3.955	1.191	.276
	Within Groups	789.979	238	3.319		
	Total	793.933	239			
MEANSERV	Between Groups	96.895	1	96.895	22.746	.000
	Within Groups	1013.851	238	4.260		
	Total	1110.746	239			
MEANNOTI	Between Groups	2.751	1	2.751	.810	.369
	Within Groups	807.932	238	3.395		
	Total	810.683	239			
MEANAPPL	Between Groups	165.189	1	165.189	83.093	.000
	Within Groups	473.145	238	1.988		
	Total	638.333	239			



		Sum of Squares	df	Mean Square	F	Sig.
MEANFREE	Between Groups	3.169	1	3.169	.971	.325
	Within Groups	776.664	238	3.263		
	Total	779.833	239			

**Hypothesis 2: Postpaid subscribers and prepaid subscribers will have significantly different mobile phone services preferences.**

One-way ANOVA was employed for comparing the responses between the two groups of subscribers. The ANOVA results show that the differences between postpaid and prepaid subscribers were statistically significant for all mobile phone services except one. There was no significant difference in the notification services (MEANNOTI) of postpaid and prepaid subscribers,  $F(1, 238) = 0.628, p = 0.429$ . Hence, these results imply that there are more distinctive and more significant differences to be found if users are classified according to the type of subscription that they have chosen to avail.

**Table 4b. ANOVA Results for Type of Subscription Used**

		Sum of Squares	df	Mean Square	F	Sig.
MEANPACK	Between Groups	47.502	1	47.502	15.146	.000
	Within Groups	746.431	238	3.136		
	Total	793.933	239			
MEANSERV	Between Groups	166.852	1	166.852	42.071	.000
	Within Groups	943.894	238	3.966		
	Total	1110.746	239			
MEANNOTI	Between Groups	2.133	1	2.133	.628	.429
	Within Groups	808.550	238	3.397		
	Total	810.683	239			
MEANAPPL	Between Groups	23.408	1	23.408	9.060	.003
	Within Groups	614.925	238	2.584		
	Total	638.333	239			
MEANFREE	Between Groups	31.008	1	31.008	9.855	.002
	Within Groups	748.825	238	3.146		
	Total	779.833	239			

Paired sample t-test was further employed for the testing the differences between and among the five different categories. For the overall data, there are several analyzed pairs that were found to be not significant. Based on the t-test results, there are no significant differences in mobile phone users' level of involvement between: (1) subscription packages (MEANPACK) and phone application services (MEANAPPL); (2) subscription packages and promotions and giveaways (MEANFREE); (3) Internet browsing services (MEANSERV) and notification subscriptions (MEANNOTI); and (4) phone application services and promotions and giveaways (see Table 5a). This implies that in general, there is indeed some confusion going on with the mobile phone market regarding how consumers make their choices (Turnbull et al., 2000; Yoo et al., 2005).

**Table 5a. t-Test Results for Overall Data**

	Paired Differences						t	Sig. (2-tailed)
	Mean	Std. Dev.	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
MEANPACK - MEANSERV	.73750	2.38344	.15385	.43442	1.04058	4.794	.000	
MEANPACK - MEANNOTI	.84167	2.16619	.13983	.56622	1.11712	6.019	.000	
MEANPACK - MEANAPPL	-.10000	2.30435	.14875	-.39302	.19302	-.672	.502	
MEANPACK - MEANFREE	-.18333	1.83974	.11875	-.41727	.05061	-1.544	.124	
MEANSERV - MEANNOTI	.10417	2.06601	.13336	-.15855	.36688	.781	.436	
MEANSERV - MEANAPPL	-.83750	1.95173	.12598	-1.08568	-.58932	-6.648	.000	
MEANSERV - MEANFREE	-.92083	2.37424	.15326	-1.22274	-.61893	-6.008	.000	
MEANNOTI - MEANAPPL	-.94167	1.94827	.12576	-1.18941	-.69393	-7.488	.000	
MEANNOTI - MEANFREE	-1.02500	1.74271	.11249	-1.24660	-.80340	-9.112	.000	
MEANAPPL - MEANFREE	-.08333	2.32445	.15004	-.37891	.21224	-.555	.579	

**Hypothesis 3: Smart phone users will have a significantly higher product involvement in different mobile phone services than regular phone users.**

The next part of the analysis examines if there are significant differences regarding the level of involvement on the mobile phone services within the demographic groups that were studied in this research. Theory on involvement posit that involvement can lead to greater perceptions of attribute differences (Howard & Sheth, 1969; Ratchford, 1987; Zaichkowsky, 1985). Even within the same product class, low involvement induces little comparison and perceptions of similarity among different product attributes (Ratchford, 1987; Zaichkowsky, 1985).

Paired sample t-test was employed for the testing the differences between and among the five different categories. The t-test results show here that the differences of level of involvement of regular mobile phone users for all mobile phone services are significant except for one pair. This infers that regular mobile phone users do not have significant differences in the level of involvement between notification subscriptions (MEANNOTI) and phone application services (MEANAPPL). Interestingly, this implies that regular mobile phone users can more easily and more distinctively distinguish among the different mobile phone services offered.

**Table 5b. t-Test Results for Regular Mobile Phone Users**

	Paired Differences						t	Sig. (2-tailed)
	Mean	Std. Dev.	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
MEANPACK - MEANSERV	1.31731	2.47567	.24276	.83585	1.79876	5.426	.000	
MEANPACK - MEANNOTI	.81731	1.64222	.16103	.49794	1.13668	5.075	.000	
MEANPACK - MEANAPPL	.70192	2.28654	.22421	.25725	1.14660	3.131	.002	
MEANPACK - MEANFREE	-.46154	1.33964	.13136	-.72206	-.20101	-3.513	.001	
MEANSERV - MEANNOTI	-.50000	2.16436	.21223	-.92091	-.07909	-2.356	.020	
MEANSERV - MEANAPPL	-.61538	1.73237	.16987	-.95229	-.27848	-3.623	.000	
MEANSERV - MEANFREE	-1.77885	2.50177	.24532	-2.26538	-1.29231	-7.251	.000	
MEANNOTI - MEANAPPL	-.11538	1.98811	.19495	-.50202	.27125	-.592	.555	
MEANNOTI - MEANFREE	-1.27885	1.66390	.16316	-1.60243	-.95526	-7.838	.000	
MEANAPPL - MEANFREE	-1.16346	2.19658	.21539	-1.59064	-.73628	-5.402	.000	

Paired sample t-test was employed for the testing the differences between and among the five different categories. The t-test results show that there are three pairs of mobile phone services that have no significant differences in the level of involvement for smart phone users. There are no significant differences between: (1) subscription packages (MEANPACK) and Internet browsing service (MEANSERV); (2) subscription packages and promotions and giveaways (MEANFREE); and (3) Internet browsing service and promotions and giveaways (see Table 5c). This infers that subscription packages do not induce a significantly different level of involvement compared to the other services. Interestingly, this implies that smart phone users are either more confused distinguishing one mobile phone service from another or they take these different mobile phone services in groups, with subscription packages apparently being bundled with other services. Both instances are expected, given the fact that smart phones have been in the Philippine market in a relatively shorter period of time compared to regular mobile phones ("Globe Telecom, Inc. Annual Report," 2011; "Philippine Long Distance Telephone, Co. Annual Report," 2011; "Telecoms industry report: Philippines," 2010).

**Table 5c. t-Test Results for Smart Phone Users**

	Paired Differences						Sig. (2-tailed)
	Mean	Std. Dev.	Std. Error Mean	95% Confidence Interval of the Difference		t	
				Lower	Upper		
MEANPACK - MEANSERV	.29412	2.21900	.19028	-.08219	.67043	1.546	.125
MEANPACK - MEANNOTI	.86029	2.49977	.21435	.43637	1.28422	4.013	.000
MEANPACK - MEANAPPL	-.71324	2.13015	.18266	-1.07448	-.35199	-3.905	.000
MEANPACK - MEANFREE	.02941	2.12548	.18226	-.33104	.38986	.161	.872
MEANSERV - MEANNOTI	.56618	1.86717	.16011	.24953	.88282	3.536	.001
MEANSERV - MEANAPPL	-1.00735	2.09451	.17960	-1.36255	-.65215	-5.609	.000
MEANSERV - MEANFREE	-.26471	2.05024	.17581	-.61240	.08299	-1.506	.134
MEANNOTI - MEANAPPL	-1.57353	1.66614	.14287	-1.85608	-1.29098	-11.014	.000
MEANNOTI - MEANFREE	-.83088	1.78234	.15283	-1.13314	-.52862	-5.436	.000
MEANAPPL - MEANFREE	.74265	2.07318	.17777	.39106	1.09423	4.177	.000

**Hypothesis 4: Postpaid subscribers will have a significantly higher product involvement in different mobile phone services than regular phone users.**

Paired sample t-test was employed for the testing the differences between and among the five different categories. For postpaid subscribers, the t-test results show only four significant differences: (1) subscription packages (MEANPACK) and notification subscriptions (MEANNOTI); (2) Internet browsing services (MEANSERV) and notification subscriptions (3) notification subscriptions and phone application services (MEANAPPL); and notification subscriptions and promotions and giveaways (MEANFREE). This infers that notification subscriptions do not induce a significantly different level of involvement when compared to the other mobile phone services. This therefore implies that postpaid subscribers do not see a significant difference on notification subscriptions.

**Table 5d. t-Test Results for Postpaid Subscribers**

	Paired Differences						Sig. (2-tailed)
	Mean	Std. Dev.	Std. Error Mean	95% Confidence Interval of the Difference		t	
				Lower	Upper		
MEANPACK - MEANSERV	.18750	2.31243	.25854	-.32711	.70211	.725	.470
MEANPACK - MEANNOTI	1.33750	2.58926	.28949	.76129	1.91371	4.620	.000
MEANPACK - MEANAPPL	.08750	1.92465	.21518	-.34081	.51581	.407	.685

	Paired Differences						
	Mean	Std. Dev.	Std. Error Mean	95% Confidence Interval of the Difference		t	Sig. (2- tailed)
				Lower	Upper		
MEANPACK - MEANFREE	-.06250	1.99346	.22288	-.50612	.38112	-.280	.780
MEANSERV - MEANNOTI	1.15000	1.80435	.20173	.74846	1.55154	5.701	.000
MEANSERV - MEANAPPL	-.10000	1.32024	.14761	-.39381	.19381	-.677	.500
MEANSERV - MEANFREE	-.25000	2.11235	.23617	-.72008	.22008	-1.059	.293
MEANNOTI - MEANAPPL	-1.25000	1.49894	.16759	-1.58357	-.91643	-7.459	.000
MEANNOTI - MEANFREE	-1.40000	1.66574	.18624	-1.77069	-1.02931	-7.517	.000
MEANAPPL - MEANFREE	-.15000	1.68463	.18835	-.52490	.22490	-.796	.428

Paired sample t-test was employed for the testing the differences between and among the five different categories. For prepaid subscribers, the t-test results show three results that are not significant. Prepaid subscribers do not have any significant differences between subscription packages (MEANPACK) and phone application services (MEANAPPL), subscription packages and promotions and giveaways (MEANFREE), and phone application services and promotions and giveaways. This implies that prepaid subscribers either are more confused about these three particular mobile phone services or these three services simply do not induce enough significant different levels of involvement.

**Table 5e. t-Test Results for Prepaid Subscribers**

	Paired Differences						
	Mean	Std. Dev.	Std. Error Mean	95% Confidence Interval of the Difference		t	Sig. (2- tailed)
				Lower	Upper		
MEANPACK - MEANSERV	1.01250	2.37780	.18798	.64124	1.38376	5.386	.000
MEANPACK - MEANNOTI	.59375	1.88063	.14868	.30011	.88739	3.994	.000
MEANPACK - MEANAPPL	-.19375	2.47280	.19549	-.57985	.19235	-.991	.323
MEANPACK - MEANFREE	-.24375	1.76130	.13924	-.51875	.03125	-1.751	.082
MEANSERV - MEANNOTI	-.41875	1.99322	.15758	-.72997	-.10753	-2.657	.009
MEANSERV - MEANAPPL	-1.20625	2.10934	.16676	-1.53560	-.87690	-7.234	.000
MEANSERV - MEANFREE	-1.25625	2.43241	.19230	-1.63604	-.87646	-6.533	.000
MEANNOTI - MEANAPPL	-.78750	2.12543	.16803	-1.11936	-.45564	-4.687	.000
MEANNOTI - MEANFREE	-.83750	1.75509	.13875	-1.11153	-.56347	-6.036	.000
MEANAPPL - MEANFREE	-.05000	2.59001	.20476	-.45440	.35440	-.244	.807

## 6 Conclusions

### 6.1 Discussion

The results of this study define the clear boundaries describing what highly interests mobile phone users with respect to mobile phone service offerings across two demographic categories. It is clear that high-technology and technologically more complex products and services generally induce higher levels of involvement from consumers (Gardner et al., 2000). The same is true with higher-priced items (Chebat & Picard, 1985; Gabor & Granger, 1965; Kotler & Keller, 2006).

Regarding the differences between regular mobile phone users and smart phone users, it is very clear that these two segments of users have different interests, hence placing different levels of involvement across the five service offerings tested in this study. Regular mobile phone users place the highest involvement on promotions and giveaways and the lowest on Internet browsing services.

Smart phone users put most of the efforts on knowing and learning about phone applications and the least efforts on notification subscriptions. Interestingly, the next highest involvement for both segments is the subscription packages, which were found to have no significant difference between them. Overall, there are some significant differences in the preferences between smart phone users and regular mobile phone users, hence partially supporting Hypothesis 1.

As for the prepaid vs. postpaid subscribers, the differences are slightly less distinct, since both groups express the highest level of involvement on promotions and giveaways offered by the service providers. Prepaid subscribers put the least amount of involvement on Internet browsing services while postpaid subscribers place the least amount of effort on knowing and learning about notification subscriptions. Again, the overall picture suggests that two groups have different preferences, although not all of the differences are significant, hence partially supporting Hypothesis 2.

The results also show that smart phone users have higher levels of involvement in four of the five mobile phone services. However, only two proved to have significant differences. Therefore, Hypothesis 3 is partially supported as well. The results further show that postpaid subscribers exhibit higher levels of involvement in all five mobile phone services, with four of the five services showing significant differences. These results partially support Hypothesis 4.

**Table 6. Summary of Hypothesis-Testing Results**

Hypothesis	Result
H1 Smart phone users and regular phone users will have significantly different mobile phone services preferences.	Partially Supported
H2 Postpaid subscribers and prepaid subscribers will have significantly different mobile phone services preferences.	Partially Supported
H3 Smart phone users will have a significantly higher product involvement in different mobile phone services than regular phone users.	Partially Supported
H4 Postpaid subscribers will have a significantly higher product involvement in different mobile phone services than regular phone users.	Partially Supported

## 6.2 Implications

The market dynamics for the Philippine mobile phone industry will be continuously changing for years to come ("Globe Telecom, Inc. Annual Report," 2011; "Philippine Long Distance Telephone, Co. Annual Report," 2011; "Telecoms industry report: Philippines," 2010). Therefore, it is important for marketers to constantly monitor the factors that influence consumer insights and perspectives on what is valuable (Kotler & Keller, 2006; Parasuraman, 1997; Ratchford, 1987; Woodruff, 1997). This study shows how complex the market has become given all of these innovations and changes in the products and services that the industry has to offer. The same can be said with the different dimensions of involvement, that can change in terms of their significance and relevance over time (Kapferer & Laurent, 1986; Ratchford, 1987). As seen here, not all mobile phone services selected and tested in this study were significantly different across two demographic considerations. Thus, this research provides an academic approach to measure the differences of mobile phone users managing their continued use of their phone's product and service offerings. This is a crucial aspect to understand and appreciate since high technology products can potentially influence every aspect of people's lives (Gardner et al., 2000). This implies that there is a possibility that later on, these results will change as well. These developments provide an interesting avenue for further research to examine the market dynamics and how do these affect consumer behavior.

This study lends credence to two arguments. The first is that the more complex a product or a service is across several attributes, the more consumer involvement is required to fully appreciate and understand how to avail and use it (Kotler & Keller, 2006; Ratchford, 1987; Seva & Helander, 2009). Henceforth, the amount of effort to be spent by marketers to inform the market should be proportional to the level of technological complexity of the product or service. This is especially applicable in the Philippine mobile phone market where these new technologies brought about by smart phones and next generation platforms are relatively still in their infancy stages. Therefore, this study can also lend some insights regarding the Filipino consumer behavior towards this particular market. As mentioned, consumers with higher levels of involvement actively require more information and interactions to make a decision regarding the product in question (Gardner et al.,

2000; Kotler & Keller, 2006; Kwon & Chung, 2010; Mort & Drennan, 2007; Ratchford, 1987; Von Riesen & Herndon, 2011). It is, therefore, logical to argue that marketers and advertisers allocate more resources to effectively address this requirement in this situation. As such, this paper provides a theoretical and empirical explanation, through the lens of product and consumer involvement, as to why Filipino mobile phone users behave as currently observed, and how marketers and advertisers should react to such behavior.

The second argument is on product features vs. level of involvement. Researchers have argued that there is confusion about the structure of the mobile phone market and the roles of the different companies involved (Kimiloglu & Nasir, 2010; Roach, 2009; Skierkowski & Wood, 2012; Turnbull et al., 2000; Yoo et al., 2005), as this study has also shown. Henceforth, there must be some clear distinctions that must be set. Learning and understanding how consumers think on how the mobile phone market works can provide some valuable ideas on how to actually market products and services in this industry. Marketing communications represent the product or the service as it tries to establish a relationship with consumers, building on how and why a product or service is used (Kotler & Keller, 2006). One way to make marketing communication materials more effective is to tailor them to the level of involvement induced by the product or service being promoted and sold (Ratchford, 1987). Therefore, if marketers and advertisers can tailor the marketing communications to fit consumer involvement situations, they can expect a more favorable response from the intended target market. For example, since smartphone users tend to be more involved with phone applications, managers may consider putting more effort on giving more detailed information or making more attractive advertisements highlighting the phone applications available from the service provider compared to the other products and services. They can also provide more phone applications and more convenient ways to download applications above anything else since this is what smartphone users are after. Similarly, since regular phone users look out more for promotions and giveaways, advertisements geared towards them should emphasize the available promotions and giveaways above anything else. In other words, this research provides empirical evidence for marketers to rank which among the array of mobile phone products and services are most attractive to their subscribers depending on the type of mobile phone they own, and on the type of subscription they avail. It is clear that they should seriously consider clearly identifying and differentiating between their smartphone vs. regular mobile phone users and their prepaid vs. postpaid subscribers when it comes to crafting their marketing communication strategies.

### **6.3 Limitations and Directions for Future Research**

The mobile phone market is a very complex one (Turnbull et al., 2000; Yoo et al., 2005). To the best of the researcher's knowledge, no other study has academically approached this phenomenon in the Philippine context. Exploring the topic of involvement in this said market is one major direction for future research, taking into consideration several factors, such as brand-related perceptions, experience with using the related technology, and perceptions on high technology vs. low technology products (Gardner et al., 2000; Kotler & Keller, 2006; Seva & Helander, 2009), not observed in this study. While these issues may have been observed in other contexts, the Philippines has been observed to be a relatively unique environment compared to its Asian neighbors, where it is a confusing mix of Eastern and Western orientations (Seva & Helander, 2009).

Also, the interaction effects of these different dimensions influencing customer attitudes and behaviors should be examined. For instance, the interaction effects of type of mobile phone owned and type of subscription availed can be examined. Given the wide array of product characteristics, features, and attributes, it is an obvious possibility that in reality, it is a combination of these dimensions that induces customer involvement as implied (Gardner et al., 2000; Kotler & Keller, 2006; Parasuraman, 1997; Seva & Helander, 2009; Woodruff, 1997). The possible interaction effects of demographic variables can also be examined as well. Additionally, specifying the motivations behind the purchase of a particular type of mobile phone and availing a particular type of subscription service may also prove useful for further research to elaborate more on this phenomenon (Kapferer & Laurent, 1986; Ratchford, 1987). Learning how all of these dimensions individually and collectively contribute to this issue is an important research case that warrants further study as well, both for researchers and practitioners.

Furthermore, limitations regarding the sampling frame must be highlighted, despite the fact that the research respondents' profiles are consistent with that of similar previous studies. This research used a sample that is biased towards students (60%) and from an age group of 18-32 years old (88%). The sample became a convenience sample because the questionnaire was posted on online alumni social networking pages. Further research should consider expanding the sample to include more employed individuals and older generations of current mobile phone users to improve the overall generalizability of the research results.

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