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Facebook Group Engagement, Brand Preference, and Brand Community: A Moderated Mediation Analysis of Smartphones

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Abstract

This research aims to investigate the mediating effect of Facebook group engagement (FGE) in smartphone brand preference (BP) and brand community (BC). The extended self-congruity model was used in this study, which was operationalized by identifying self-congruity (SC), functional congruity (FC), brand preference (BP), and brand community (BC). This study had randomly selected 300 millennial respondents ages 19-29 years old using Facebook Insights for the survey poll (N=300). Confirmatory factor analysis and model testing were conducted using structural equation modeling (PLS-SEM). In the overall framework, results showed that SC positively influences FC; FC positively influences BP, and BP positively influences BC while FGE mediates the relationship of BP and BC (with p-values ≤ 0.01). The direct linear relationship of R^2 was related to the predictive relevance of overall and generation based models in Q^2 . Hence, cut-scores were all above 0.5 or acceptable. For the T-test, coefficients were all above 1.96 which is considered significant at 0.05 or 95% confidence level. The study suggests that marketers should strive to develop product images that are consistent with the identifiable brand community. With this trend, they need to develop appropriate content for improved engagement with Facebook groups as a primary social medium and prospective sales channel.

Keywords: Facebook group engagement; Brand preference; Brand community; millennials; Structural Equation Modeling

Introduction

In the Philippines, there is a wide selection of smartphone brands. Due to roller-coaster economic conditions, some Filipinos continued to favor low-priced and lesser-known brands. Still, many consumers, prefer well-established and premium product lines because of superior quality and features. Indeed, consumer preference varies per brand (Mobile Phones in the Philippines Euromonitor, 2016).

"The availability of budget-friendly smartphones propelled smartphones to register 15% retail volume growth to reach 16.8 million units in 2016. Mobile internet penetration also continued to outpace fixed broadband penetration, leading smartphones to become a key digital device in the Philippines (Mobile Phones in the Philippines, Euromonitor 2016)." The majority of smartphones sold in 2016 used the Android operating system, which held an 89% retail volume share.

Filipinos are highly engaged with their mobile phones. Many middle-income consumers own multiple handsets due to the poor coverage or signal of service providers as well as a preference for separating their business and personal units. Around 67% of Philippine households own a smartphone, as even low-income families possessed at least one unit. Smartphones are everywhere. It is called the "Key Device" (Mobile Hero, 2017) with the evolution and improvement of social media like Facebook, Twitter, Instagram, and YouTube, people are connected everywhere they go. Efficient operating systems with improved graphical user interface (GUI) enables users to download games and applications that they can use for everyday endeavors like dictionaries, recipes, and e- books. You can observe people riding in a PUJ or PUB with their smartphones playing either Clash of Clans or Mobile Legends.

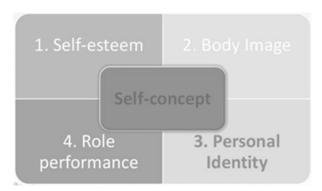
The Filipinos way of using mobile phones has changed rapidly. It is not just a phone, but a gadget for games, groupies, travel, movies and social streaming. A universal gadget indeed. The researcher observed people, usually millennials, using their smartphones watching videos or Facebook live on almost all events like sports, news, pageants, and church services wherever they go. Others are playing games while the remainder normally listens to either Spotify or Spinner. A millennial consumer wants value for his/her money.

Today, there are Facebook pages and groups specifically created for each brand or phone model to personally cater the needs of the target market while engaging in a social media marketing strategy such as customer co-creation and crowdsourcing (Hlavac, 2017).

The Concept of "Self"

"Self-concept is defined as the total set of beliefs and attitudes toward the self (Rosenberg, 1979). Self-concept is the individual's understanding of himself, including personal traits, values, goals, feelings, and images." "People develop this by making inferences from the result of their actions, cognitions, emotions, and motivations as well as through direct self-assessment, social comparison, or direct interaction with others (Markus and Wurf, 1987). Similar to other conceptual knowledge, self-concept consists of a cognitive schema, called self-schema, in which cognitive generalizations about the self, derived from experience, organize and guide the processing of self-related information contained in the individual's social experiences." (Markus, 1977)."

Figure 1
Rosenberg's (1979) Self-Concept Model



About the self-concept research, Markus and Wurf (1987) stated, "self-schema is multidimensional, multifaceted structure, and accordingly, that, as a reflection of such a self-schema, self-concept is comprised of multifaceted self-representations. In such self- concept, self-representations differ in their centrality or importance." Indeed, the representations also vary as regards to whether they manifest who the person is or who they would want to become. For example, an individual may think of herself as a beauty queen and ramp model, while she wants to be a car racer. "Not all self-representations are active at the same time. Indeed, self-representations and the corresponding self-schemata become activated depending upon one's social roles at the time or particular situations (Aaker, 1999; Sirgy, 1986)." For example, a person may be very particular on how he/she appear in the workplace professionally given his/her academic background while he/she wants to become an ideal parent at home. "These activated schemata function as selection mechanisms which determine whether the information is attended to and how it is processed, and as a result, the self-schemata becomes resistant to inconsistent or contradictory information, along with the repeated experience (Markus, 1977)."

Self-congruity

Self-congruity talks about the level of parity between the brand image and the consumer's image (Sirgy, Lee, Johar, & Tidwell, 2008). Indeed, self-congruity reverberate the level of similarity (Sirgy, 1982; Sirgy et al., 1997). Referencing to the self- congruity theory, it suggests that consumers are affected by the level to which he/she perceives his/her self-concept that equates to the product-user image (Sirgy et al., 1997). It reflects the brand's benefit symbolically which affects consumer choice, purchase intentions, and loyalty (Belk, 1988; Grimm, 2005; Kressmann et al., 2006; Sirgy et al., 1997). "Moreover, consumer preference for a brand increases with higher congruence between his/her self- image and brand-user image (Sirgy et al., 1997). Research findings demonstrate that self- congruity is an important driver of consumer brand preferences (Jamal & Al-Marri, 2007; Jamal & Goode, 2001; Kressmann et al., 2006)."

"Self-congruity is the extent to which brand personality and self-concept are compatible as well as the match between product characteristics and consumer's self- concept (Johar & Sirgy, 1991)." "Self-concept, according to self-congruity theory, influences consumer behavior with the ultimate goal of product purchase (Johar & Sirgy, 1989)."

Individuals would love to believe in a product that boosts their self-esteem and self- worth. Consumers have more inclination to try to preserve their ideal of self-concept based on the products they consumed and purchased.

Sirgy (1982) summed up the importance of self-concept in self-congruity theory:

- 1. Self-concept is of value to a person and his behavior will be directed towards the enhancement of self-concept.
- 2. The purchase, display, and consumption of products personify ideology.
- 3. The behavior of a person will always be in line with enhancing self- concept.

Facebook and its engagement

Content is the driving force to attract, engage, and delight customers. It engages people with an effective brand message (Smitha, 2013).

Facebook is not just a network to gain more friends, it is a platform to build engagement whether for personal or business purposes. The capability to reply to react, share, comment, and click hashtags, were all designed to keep Facebook users on track of discovering timely and relevant content (Smitha, 2013).

Engagement on a specific content is not just about capturing attention, it also measures how many people like, share, and follow your posts. A post becomes viral when more and more people are liking and sharing it because it is authentic (Smitha, 2013).

Facebook engagement is about the type of people who sees a post, Facebook's algorithm determines what story will appear on news feed with the help of Insights, giving information in terms of reach, whether organic or paid. Engagement can also describe your typical audience. "The volume of engagement a specific content receives can indicate the quality of your audiences, and engagement on certain types of posts can provide insight about what they're interested in (Smitha, 2013)."

Brand Preference

Brand preferences, as customary, have been discussed using theoretical frameworks that focus on consumers' cognitive judgment on brand attributes. However, the shift to experiential marketing, the essence of branding, has expanded the role of t brand from a cluster of attributes to experiences. It also considers both the rational and irrational aspects of consumer behavior (Schmitt, 1999, 2009). Also, technological innovations increased similarities between brands and product commoditization. Indeed, consumers find it challenging to distinguish between brands on specific functional attributes (Petruzzellis, 2010; Temporal & Lee, 2000). Instead, they seek brands that create an experience. Experiential appeals are important components of a brand and are used in differentiation and enhancement of consumer preference (Berry, Carbone, & Haeckel, 2002; Schmitt, 2009; Zarantonello & Schmitt, 2010). Brand preference is about choices that give consumers a delightful and positive experience.

Although some studies indicate the role of experience for the development of consumers' preferences towards brands, this has not been addressed extensively. "Such experiences provide experiential values leading to the preferential treatment of a brand similar to the value of utilitarian attributes (Brakus, Schmitt, & Zarantonello, 2009)." The interactions between cognitive information processing and experience were important in understanding the dynamism of consumer preference.

Brand Communities

In social integrated marketing communications, brand communities usually have influencers, experts, and followers or members. It is where peer-to-peer recommendations are the strongest and where people make many of their purchase decisions. (Hlavac, Social Media Marketing, MOOC 2017).

Brand communities have distinct characteristics. They are created to link members together

as families, friends, and colleagues. Their primary mission is to allow for conversations and the exchange of pictures and ideas. The creators of social networks are entrepreneurs who want to eventually monetize the site.

Many, like Twitter, start by focusing on communication. Then after they grow, they add some type of revenue-generation device. Most social networking sites like Facebook use registration as a way to identify members. For members, the registration page allows claiming a spot on the site to develop member profiles and provide other information to attract people with similar interests. (Hlavac, Social Media Marketing, MOOC 2017).

Rather than joining to socially engage, brand communities are on a mission. Members want to express patience or address a life-change event. Most communities are created by members who also manage them. Their conversations are deep and focus on subjects of interest to the members. Facebook groups are smaller than social networking sites, but they are many. They too have registration and profile pages, but they are used for very different reasons. In Facebook groups, the members control the site and often reward users for supporting it, this is called "gamification".

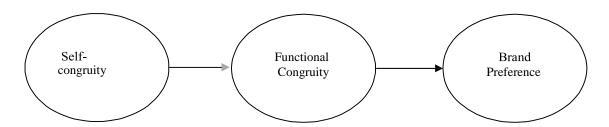
Forms of Brand Communities

For the organization to find and engage with private groups, we need to understand why they form. It could be something innately important to the individual—what we call a passion—or it can be to address an event created by some external force—which we call a trigger event. External forces could be a life stage or some event happening in personal life or a planned or unplanned event at work that impacts your professional life (Hlavac, Social Media Marketing, MOOC 2017).

Theoretical Framework: Sirgy et al. (1991)

Sirgy et al. (1991) suggested that people are more motivated to come up with new beliefs that improve their self-concept and less motivated to configure beliefs that oppose their idea self-concept. Self- serving bias is the phenomenon that can explain this information processing concerning social cognition literature. Sirgy et al. (1991) maintained that "people first process self-related information to determine the self-enhancement properties of the information, the outcome of which guide further processing related to non-self- information". The notion, Sirgy et al. (1991) hypothesized was self-congruity type processing is more likely to happen before the functional congruity type of processing in the consumer context. The evaluation of functional attributes in turn influences consumer behavior.

Figure 2
Sirgy (1991) Self-Congruity Model



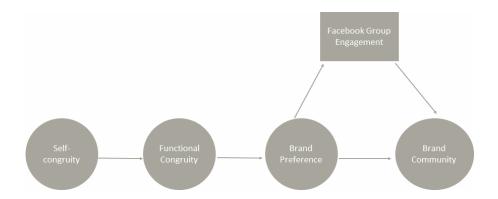
Facebook provides a diverse social network ecosystem that allows a user to almost anything in his/her timeline as well as a news feed. Its impact has been evident in terms of influencing consumer decisions as people notice online conversations by mostly friends whether good or bad experience.

The role of Facebook in the socialization of the online buying process continues to evolve as makes its presence felt around the world. Facebooks can influence the shopping environment base on online conversations. What people are saying affects the reputation of a brand. These may include like, share, or unlike a product or services. (Bullas, 2013).

Conceptual Framework

The researcher enhanced the existing model taking into consideration the current influence of social media groups in brand preference and brand community. The smartphone post-purchase or pre-purchase has been held constant. A shorthand indication of the effect of one variable on another, provided all other variables remain the same. This research updates the research model of Sirgy et al. (1991).

Figure 3
Enhanced SBI Model



Hypotheses

This paper will try to answer the mediating effect of FGE to BP and BC. Validate previous findings of Sirgy et al. (1991) that people are more motivated to form new beliefs aligned with their idea of self-concept.

H1: Self-congruity (SC) positively influences functional congruity (FC).

H2: Functional congruity (FC) positively influences brand preference (BP).

H3: Brand preference (BP) positively influences brand community (BC).

H4: FGE mediates the relationship between brand preference (BP) and brand community (BC).

Research Design and Data Collection

This study used a causal research design. It explains the precise relationships between dimensions or characteristics of a phenomenon or differences between groups. Causal research uses current and previous data to forecast activity, behavior, and trends. This is to assess the impact as regards the specific changes on existing norms, various processes. Primary data from the study came from an online survey using FB Insights (analytics). Secondary data, to support findings in the survey, came from published manuscripts and similar studies.

The researcher utilized random sampling and received a total of 300 survey responses administered via an online survey. For the online survey, the researcher used Facebook boost and insights (analytics) to get the respondents from key cities. Upon checking the integrity of the collected forms, there were only 300 out of 321 questionnaires that were deemed complete for analysis. A potential respondent based on predefined criteria like age, gender, location, and income bracket may see the sponsored poll in the news feed as a target audience. If the person decides to respond to the poll, Facebook does not show the marketer or advertiser any personally identifiable information (PII) or sensitive personal information. Responses are not attached to the Facebook profile (Hlavac, 2017).

The sponsored poll complied with the "Data Privacy Act 2012, strict privacy legislation "to protect the fundamental human right of privacy, of communication while ensuring a free flow of information to promote innovation and growth." (Republic Act. No. 10173, Ch. 1, Sec. 2)."

The survey strategy allows the researcher to collect data that can be analyzed quantitatively via Partial Least Square-Structural Equation Modeling "PLS-SEM". "Also, data collected can be used to suggest possible reasons for particular relationships between variables measured and latent constructs (Hair, Ringle, & Sarstedt, 2011; Hair, Wolfinbarger Celsi, et al., 2011)."

The questionnaire was adopted mainly from the 'Handbook of Marketing Scales' (Bearden and Netemeyer, 1999) that was used in the online survey to gather the pulse of the respondents.

To test the validity of the questionnaires, the researcher conducted a pre-trial survey noting the comments of respondents and including the Cronbach's alpha for each variable. Table 4 shows the Cronbach alpha values for each variable. Finally, the questions used for the study are shown in Table 1.

Results and Discussion

 Table 1

 Socio-Demographic Profile of Respondents

	QuestionsAnswers		FrequencyPercent	
-	Male	126	42%	
Gende	r and Age			
	Female	174	58%	
	19-29	300	100%	
	Employee	298	99%	
Occupation	Unemployed	2	1%	
Month	ly IncomeBelow 20,000 Php	12	4%	
	21,000-30,000 Php	285	95%	
	31,000-50,000 Php	3	1%	
Educational	College Graduate	160	53%	
Attainment Master's Degree		116	39%	
Doctorate Degree		24	8%	

It is shown in Table 1 that the number of female respondents (58%) was greater than that of males (42%). Indeed, 100% of the survey participants were aged 19 and 29. Moreover, 53% of them obtained a college degree. In terms of monthly income, (95%) declared income between 21,000-30,000 Php.

Evaluation of the measurement model

The conceptual framework, illustrated in Fig. 3, shows an extended model of the FGE-Self-Congruity. The goal is to show the role of Facebook group engagement (FGE) as a mediating variable of BP and BC.

In this paper, the constructs are considered non-reflective because the composite reliability is non-interchangeable.

Discriminant Validity Assessment

The discriminant validity assessment's goal is to ensure that the reflective construct will have the strongest relationships with its indicators (e.g., comparison with other constructs) in the PLS model (Hair et al., 2017).

This assessment is a commonly accepted prerequisite for evaluating relationships among latent variables. (Hair et al., 2017).

Table 2 shows the Heterotrait-Monotrait Ratio of correlations (HTMT), a method for assessing discriminant validity, which is one of the foundations of model evaluation. If discriminant validity is not manifested, researchers cannot affirm that the results hypothesized as well as the structural paths are real. This criterion is way better than the approaches to discriminant validity assessment like Fornell-Larcker criterion (Hair et al., 2017).

Table 2 *Heterotrait-Monotrait Ratio (HTMT)*

Constructs	BP	FC	FGE	SC
ВС				
BP	0.819)		
FC	0.879	0.867		
FGE	0.858	80.884	0.866	
SC	0.875	50.852	0.882	0.825

If the HTMT value is below 0.90, discriminant validity has been established between two reflective constructs. HTMT Inference results can be run through bootstrapping routine. When starting the bootstrapping routine, it is important to select the option "Complete Bootstrapping". Then, in the bootstrapping results report, find the bootstrapped HTMT criterion results in the section "Quality Criteria" (Hair et al., 2017).

Evaluation of the structural model

After evaluating if the constructs were valid and reliable, the researcher assessed the structural model's (Fig. 3) predictive capabilities using FGE between the constructs.

Table 3Reliabilities, convergent and discriminant validities, and correlations among latent constructs of the measurement model

Latent Constructs	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
BC	0.949	0.949	0.967	0.907
BP	0.938	0.939	0.956	0.845
FC	0.966	0.966	0.970	0.785
FGE	0.905	0.917	0.927	0.680
SC	0.949	0.950	0.958	0.766

"Cronbach's alpha is a measure of internal consistency, and how closely related a set of items are as a group. It is considered to be a measure of scale reliability (Bruin, 2006)." The alpha coefficient for the four variables is above 0.80 which indicates that items have relatively high internal consistency. "A reliability coefficient of .70 or higher is considered "acceptable" in most social science research." "Spearman's rank correlation coefficient or Spearman's rho_A, named after Charles Spearman is a nonparametric measure of rank correlation. In the SEM context, rho_A must be above 0.70 (Bruin, 2006)." "The cut-off score for composite reliability is generally considered 0.70 (Nunally, 1978)." For convergent validity, the average variance extracted (AVE) score was used as a metric. An AVE score of more than 0.5 reflects good convergent validity (Bruin, 2006).

Figure 4
Summary of the result of analysis

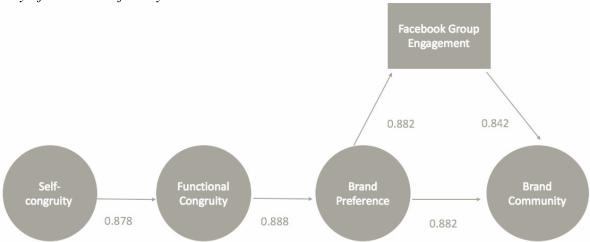


Table 4 *Hypothesis Test Results*

	Path	Original Sample (O)	T Statistics	P Values
H2 FC -> BP 0.888 30.292 0.000 *	BP -> FGE	0.882	39.156	0.000**
	$FC \rightarrow BP$	0.888	30.292	0.000**
H3 FGE -> BC 0.842 21.613 0.000*	$FGE \rightarrow BC$	0.842	21.613	0.000**
H4 SC -> FC 0.878 38.390 0.000	$SC \rightarrow FC$	0.878	38.390	0.000**

^{**}p < 0.01

This study attempted to provide information on the changing landscape of social media marketing in connection with FGE as a mediating variable of brand preference and brand community.

Table 4 present the results through bootstrapping analysis using SmartPLS. The researcher turned to basic statistical principles in interpreting the results: "if the P-value is less than 0.01 (very small), the results are considered highly significant and if the P-value is greater (but not close to) 0.05, the results are considered non-significant (Rumsey, 2010)." Based from their P- values, it can observe that the paths proved to be significant in determining the mediating effect of brand preference (BP) and brand community (BC) using FGE: SC -> B(0.000, p<0.01), B -> BS (0.000, p<0.01), BS-> SC (0.000, p<0.01), SC -> BS (0.000, p<0.01). These outcomes strongly validate the researcher's hypotheses. For the T-statistics, anything above 1.96 is considered significant at 0.05 or 95% confidence level.

Conclusions and Managerial Implications

The researcher used the enhanced Sirgy's Self-congruity Model (SCM) to determine the mediating effect of brand preference (BP) and brand community (BC) on smartphone purchases, examining behavioral factors such as SC, FC, BP, and BC. After data tabulation, findings say that FGE has a significant effect in mediating the relationship between BP and BC.

This research also validated the previous findings of Sirgy et al. (1991) who suggested that people may likely create a new set of beliefs as long as this conforms to their idea of self-concept. \Hence, SC positively influences FC. Self-congruity type processing is likely to occur before the functional congruity type of processing in the consumer context, and the overall functional attributes influence BP as it positively influences BC. FGE mediates the relationship between BP and BC respectively.

This suggests that modern marketers should continuously develop product images that are highly congruent with what the brand community wants. Indeed, preferences may vary, but the significant overlap across homogenous segments are still evident. For example, communities prefer smartphone brands that value environmental protection. Companies can create an image consistent with green marketing.

Some consumers may avoid a certain product category if this is something that does not

match their beliefs and values as an individual or as a group. From these results, it can be concluded that FGE is a strong strategic marketing platform with which companies can use to engage with social communities increasing traffic in their stores and website.

Thus, the researcher recommends that local and international smartphone companies should continue connecting with consumers not just through their Facebook pages but more importantly on customizing content with a specific group or community that they want to target. It can be a customer-centric action or a company initiated online activities that will touch the beliefs of the audience; coming up with a marketing campaign that preconditions self-congruity among social communities whether online or offline. Marketing managers can benchmark these results by looking at ways on how FGE can be utilized. For instance, making a specific Facebook group activity e.g. exclusive access, discounts, customer co-creation of a product, or even known Facebook influencers doing various reviews of a particular brand. This can be a platform to reach out to a niche market segment. Also, this will help acquire new customers, maximizing market potential.

FGE does not mean more revenue, but to help the brand grow and complement existing social media marketing strategies. To maximize the potential of online brand communities, marketers should consider communicating and adding value as well as augment the customer experience. FGE provides this value through timely and relevant content that earns the consumer's attention, action and feedback thus will influence other followers and members in the community. From a present-day idea of a self-constructed form of beliefs, future proponents of this study can explore the evolving social media trends about analytics, social listening, and gamification.

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