

Segmenting Brands' Social Network Site (Sns) Consumers: A Four-Country Study

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ABSTRACT

Since consumers are increasing their participation in social network sites (SNSs), more companies and brands are using SNSs to strategically communicate with consumers. This study investigates how brands' social network site (SNS) consumers can be segmented to identify the consumer segments that will be most responsive to marketing communications through brands' SNSs. Data were collected through an online survey applied in four different countries: Australia, Chile, South Africa and Spain, with a final sample of 1025 respondents. Segments were determined through Two-Step cluster analyses and one-way ANOVAs. Four clusters emerged in the full data set: Social Seekers, Social Satellites, Social Fringe and Disinterested and validated in the four countries. A fifth segment, Social Tourists emerged in the South Africa data. Implications for marketers and practitioners are discussed.

KEYWORDS: Brands, cluster analysis, Facebook, segmentation, social network site (SNS)

Introduction

Firms and brands are embracing social network sites (SNSs) as a contemporary way to communicate with actual and potential consumers, as well as to improve firm performance (Hajli et al. 2015). SNSs are interactive platforms that enable brands to connect with their consumers on a daily basis (Tafesse 2016, Lipsman et al. 2012). Statistics show that globally, consumers' take up of SNSs has rapidly increased (Kemp 2015). According to statistics, in 2017, 71% of internet users were social network users and it is expected that by 2020, more than 3 billion people will be an active social network user (Statista 2018). Thus, an important objective for brands is to increase consumer engagement through their SNSs by identify relevant consumer segments that will be most responsive to their marketing communications through their SNSs.

As consumers are increasing their participation in technology-based social networks, more brands are using SNSs to strategically communicate with consumers (Hall-Phillips et al. 2016, Davis, Piven, and Breazeale 2014). Moreover, recent studies suggest that consumers

are considering SNSs for making online purchases in addition to simply communicating with firms and brands (Haslehurst et al. 2016, Barnes 2014, Chen and Shen 2015, Bianchi et al. 2017).

As a result, companies are seeking strategies to increase consumer engagement through their own social network sites (SNSs) (Schamari and Schaefer 2015). These sites allow consumers to engage, share and exchange information with other consumers (Sashi 2012, Hennig-Thurau et al. 2010, Davis, Piven, and Breazeale 2014), and share their experiences about firms and brands through word-of-mouth or reviews (Chen, Fay, and Wang 2011, Trusov, Bodapati, and Bucklin 2010). Consumer engagement in SNSs leads to a stronger connection to the firm (Calder, Malthouse, and Schaedel 2009), and consumers are more likely to participate in brand communities (Algesheimer, Dholakia, and Herrmann 2005) and provide feedback for innovation (Kumar et al. 2010).

This consumer take-up of SNSs creates both opportunities and challenges for firms wishing to include SNS into their marketing strategies (Pozza 2014, Presi, Saridakis, and Hartmans 2014, Qu et al. 2013). For example, brands may draw many consumers to visit their SNSs (e.g., Facebook), however this does not imply that consumers will engage with the brand or purchase their products or services.

A first step for companies and brands that seek to increase consumer engagement through their SNSs is to identify meaningful SNS consumer segments so that correct target segments can be selected and appropriate strategies devised for the segments that will be most responsive to marketing communications (Campbell, Ferraro, and Sands 2014, Chung et al. 2015). In other words, brand marketers should understand how consumers' psychographic drivers and characteristics influence their behavior towards brands' SNSs (e.g., Leung and Tanford 2016, Su, Mariadoss, and Reynolds 2015, Davis, Piven, and Breazeale 2014), with a view to using this information to differentially segment their customer-base for more effective target marketing (Campbell, Ferraro, and Sands 2014, Chung et al. 2015, Canhoto, Clark, and Fennemore 2013). From this point of view, understanding consumer segments based on how they perceive and experience brands' SNSs is an important area of study (Chung et al. 2015, Campbell, Ferraro, and Sands 2014, Canhoto, Clark, and Fennemore 2013, Hollebeek, Glynn, and Brodie 2014, Davis, Piven, and Breazeale 2014). Yet much of the current research focuses on examining consumer behaviors on SNSs in general (Danaher, Wilson, and Davis 2003), with less focus specifically on consumer segmentation behavior with brands' SNSs.

In addition, much of the available segmentation research takes place in single country contexts. Yet, SNSs embrace individuals globally, meaning that global brands have unprecedented opportunities to interact with consumers anywhere (Araujo and Neijens 2012, Pookulangara and Koesler 2011) through these sites. Being able to compare SNS consumer segments between countries contributes to an understanding of local responses to firms and brands' SNS offerings (Park, Jun, and Lee 2015, Pentina, Zhang, and Basmanova 2013).

In addressing this important area of research, the main objective of the research reported here is to examine how consumers using brands' SNSs can be segmented according to psychographic factors that determine their levels of engagement and subsequent influence on managerial outcomes such as involvement, satisfaction and revisit intentions. This is important for academics to investigate because consumers around the world are increasing their participation in SNSs and more brands are using these networks as a strategic channel to

communicate with consumers (e.g., Assimakopoulos et al. 2017). It has been found that consumers that engage with brands' SNSs feel a stronger connection to the brand (Calder, Malthouse, and Schaedel 2009, Chang and Fan 2017), and are more likely to participate in brand communities (Algesheimer, Dholakia, and Herrmann 2005). SNSs also allows consumers to engage, share and exchange information with other consumers (Sashi 2012, Hennig-Thurau et al. 2010), and share their experiences about firms and brands through word-of-mouth or reviews (Chen, Fay, and Wang 2011, Trusov, Bodapati, and Bucklin 2010, Chang and Fan 2017). Thus, a better understanding of the characteristics of consumers engaging in brand SNSs is needed for understanding how and why consumers interact with brands in SNSs (Hollebeek, Glynn, and Brodie 2014), and develop segmentation models.

This study is also an important contribution for brand managers that are trying to find ways to engage consumers to join their SNSs in order to communicate better with them and foster ongoing consumer–brand relationships. Specifically, among all of the SNSs, Facebook is the largest, with 2 billion active users worldwide, representing almost 40% of the global online population (Statista 2018). Increasingly, brand managers are attempting to embrace Facebook as a marketing channel to drive consumer engagement and brand awareness (Malhotra, Malhotra, and See 2013). Furthermore, this study was conducted in four countries, Australia, Chile, South Africa and Spain. Thus, the multi-country context provides a unique opportunity for understanding SNS segmentation in different markets, which is very relevant for international brands. The study focuses on two developing markets (Chile and South Africa) and two more developed markets (Australia and Spain). These four countries are also regarded as differing in terms of networked readiness (Australia 18th, Spain 35th, Chile 38th and South Africa 65th – out of 139 countries), according to The Networked Readiness Index (GITR 2016). Thus, being able to compare findings across four different countries provides brand managers with additional insights into consumer engagement on brands' SNSs.

Overall, this study addresses two specific gaps identified in the literature. First, there is scant research that investigates segmentation of consumers that engage with brands' SNSs (Yadav et al. 2013, Tsai and Men 2013), specifically considering Facebook. Second, much of the consumer research on SNSs is conducted in single country settings and limited research considers multi-country studies investigating consumer engagement in SNSs.

Literature review

Psychographic reasons for interacting with brands' SNS offerings

Evidence suggests that a substantial number of consumers use SNSs to 'like' or follow brands, particularly through Facebook (e.g., Leung and Tanford 2016, Walrave et al. 2016). Thus, it is important to provide a better understanding of consumers' perceptions, experiences and behavioral outcomes while using brands' SNSs (Campbell, Ferraro, and Sands 2014). Examining consumers' engagement activities leads to a better understanding of how and why people interact with brands in SNSs (Hollebeek, Glynn, and Brodie 2014). Such activities can be categorized as: their use of SNSs for information, entertainment or some form of convenience (Campbell, Ferraro, and Sands 2014). Other studies identify consumers' consumption of information, their contribution to page content; or creating content on the brand page (e.g., Smith, Fischer, and Chen 2012, Tsai and Men 2013). Other activities may relate to a desire for information and the possibility of reward, such as coupons or special offers (Muntinga, Moorman, and Smit 2011, Tsai and Men 2013). All of these help to determine the extent to which consumers engage with brands' through SNSs.

Privacy on SNSs is also of concern. Since people are required to provide some profile information when signing up for sites, they may be concerned about how their personal information might be used, particularly if they are not aware of a site's privacy policies (Park, Jun, and Lee 2015). Trust in SNSs has been examined from a number of perspectives: 1) the individual who needs to trust the site, 2) the characteristics of the site involved, and 3) the members of that SNS community (Park, Jun, and Lee 2015, Cheung, Lee, and Chan 2015). In a SNS context, if users perceive the site provider to be more aware and responsive to consumer concerns about using and providing information on the site, this will mitigate their trust concerns. Moreover, Cheung et al. (2015) found that trust in the service provider was more significant than trust in members. Such findings confirm that consumers' need for trust in digital environments remains a concern.

Attitudes, formed by antecedent beliefs, continue to underpin intentions towards brands' Facebook pages (Gironda and Korgaonkar 2014, Wang, Yu, and Wei 2012). However, this linear relationship may not always provide the best insights into managerial outcomes. Thus, attitude acts as an antecedent to other psychographic factors that influence behavioral outcomes, such as involvement and satisfaction with SNSs. For example, Lin et al. (2014) found that antecedent affective and cognitive variables predicted satisfaction, and that satisfaction predicted intentions to continue using SNSs. However, while the role of consumer involvement through cognitive and affective engagement are part of measuring consumer engagement in a SNS (Hollebeek, Glynn, and Brodie 2014), there appears to be limited research that explores these relationships when consumers use brands' SNSs.

Segmenting consumers in social network sites (SNSs)

From the above discussion, it is evident that firms should understand consumers' needs in this highly interactive marketing environment. However, firms need to determine how such needs may differentiate their brands' SNS followers into more manageable and profitable segments for marketing activities (Campbell, Ferraro, and Sands 2014, Chung et al. 2015, Canhoto, Clark, and Fennemore 2013). The following examples show how consumers have been segmented at a brand SNS level.

Using social network behaviors of connecting, creating and control, Chung et al. (2015) identified four distinct consumer segments who support social ventures: Social observers, Social connectors, Active contributors, and Moderate contributors. These segments were profiled in terms of their willingness to volunteer, to donate and their intentions to participate with the cause through SNSs. Campbell et al. (2014) identified segments based on consumer responses to a brand's SNS marketing activity, in this instance a Twitter marketing campaign. The authors identified five segments, Passive, Talkers, Hesitant, Active and Averse. The segments were further profiled based on motivational needs for information, convenience and entertainment, as well as demographic characteristics. However, studies which take a firm level perspective either from a user's psychographics and behavior perspective, or as a reaction to social network marketing activity, are less prominent in the literature. An additional limitation noted in the literature is that all of these studies focus on consumer segments in one country only. Yet the Web 2.0 digital developments mean that firms now have international reach. However, segmentation research that considers consumers from multiple countries engaging with brands' SNSs is very limited at present. Our study seeks to address these two limitations and this is specifically achieved through a four country study that segments consumers based on psychographic and descriptive factors that influence their interactions with brands' Facebook pages. Psychographic segmentation

was chosen for this study because it has been shown to be generalizable across geographical markets (Lesser and Hughes 1986).

Research methodology

Facebook was chosen as the SNS of interest as it has high use in the selected countries (Kemp 2015) and is good example of a Web 2.0 SNS that features social and interactive elements (Cheung, Lee, and Chan 2015), and it is the leading SNS worldwide, with over 2.2b monthly active users around the world (Statista 2017). It is also the SNS channel that best facilitates firm to consumer engagement by permitting multi-media uploads, and unlimited textual space for information sharing (Gummerus, Liljander, Weman, et al. 2012). Overall, Facebook has become a global platform for interpersonal communications, entertainment, obtaining news and information (Gottfried and Shearer 2016) and social bonding (Economist 2016).

The variables used in this segmentation study were deemed to be those that capture and explain the most important psychographic aspects of consumers' interactions and outcomes with brands' Facebook pages, identified as: security and trust, motivation, attitude, involvement and satisfaction. Most often such psychographic variables are contained in a structural model and tested through structural equation modelling (e.g., Leung and Tanford 2016). Yet, a limitation in such an approach is that the findings only suggest which psychographic drivers predict behavioral intentions for the sample in general. What is missing is how the sample could be understood in terms of which psychographic drivers are more important to specific segments in the sample, thus having stronger managerial implications for marketers. Therefore, by including these variables for segmentation purposes, the explanatory relationships depicted are to some extent 'modelled in the study. Thus, theoretically it is suggested that subjective and objective motivations, together with security and trust, underpin attitude. Attitude in turn underpins a level of involvement with a brand's Facebook page, leading to a degree of satisfaction, which in turn can lead to intentions to continue joining or interacting with brands' pages. Based on this theorizing, it would be anticipated that there should be stronger or weaker scores for these variables that would differentiate the segments.

Measurement

The measures were drawn from prior academic research; however, it was found that more suitable measures for some of the variables were available in the mobile shopping research, rather than in SNS studies per se. In these instances, the measures captured both the notion of firm brand offerings and the relevant technology. The variables selected for segmentation were those that capture and explain the most important psychographic aspects of consumers' interactions and outcomes with brands' Facebook pages, identified as: security and trust, motivation, attitude, involvement and satisfaction. All psychographic variables were measured using a five point Likert scale ranging from **1** – *strongly disagree* to **5** – *strongly agree*.

Security and trust concerns relate to consumer trust in the provider of the SNS, as discussed in Cheung et al. (2015). Five items used were adapted from San Martin and Lopez-Catalan (2013) as their focus was very specifically on a firm's site. The five items measuring subjective and objective **Motivations** to visit a brand's Facebook site were adapted from Muntinga et al. (2011) relating to entertainment, social interaction, personal identification,

information, empowerment and remuneration. To determine whether consumers were motivated by subjective or objective reasons for engaging with a brand's Facebook page, this variable was split into two dimensions using the first three items for the subjective component and second three items for the objective component. **Attitude** towards a brand's Facebook page was measured with four items adapted from Yang (2010). **Involvement** was measured with three items adapted from San Martin and Lopez-Catalan (2013) following their argument that there should be a focus on consumers interest and involvement with what is offered as well as an interest in the technology related to the offering. **Satisfaction** was measured with four items adapted from San Martin and Lopez-Catalan (2013) that covered consumer overall satisfaction with and experience with the brand offering through the SNS. **Intention to continue** engaging with brands' Facebook pages is the final behavioral outcome variable, measured by three items with wording adapted from Yang (2010). Although the Intentions variable is discussed under the measurement section, it was not used as a segmentation variable per se. Instead, it was included as a descriptive profiling variable so that it did not swamp the distribution of the other psychographic variable means in the segments.

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For the purpose of this study, the measures for the psychographic variables are shown in Appendix 1. Finally, demographic characteristics were collected to describe the samples. The SNS activities, together with gender and age were selected for profiling the segments.

Sampling and survey method

Samples were recruited in four countries during 2016. In Chile and Spain, participants were recruited from university alumni databases. None of these participants were incentivized for participating in the study. In South Africa and Australia recruitment was done through market research firms using their consumer panels and participants were incentivized by these firms only. The total number of participants achieved was 1025.

The survey was written in English for use in the Australian and South African studies. The survey was translated into Spanish by a Chilean native speaker and back translated to English to determine the comparability of the meaning of the items used. The survey instrument was examined by academics in Chile, South Africa and Australia who were not related to the research to determine the suitability of the measures used. No major problems were indicated. The Spanish researcher then checked the Chilean survey to ensure that the language would be acceptable to Spanish respondents. Finally, the surveys were pretested with local people to ensure comprehensibility and understanding.

The survey was developed and hosted on the Australian university's server for the Australian, Chilean and Spanish data collections. In South Africa, the survey was hosted on the market research firm's server. In Chile and Spain, the online survey link was provided in an email invitation to participate sent out by the alumni database administrators. These recruitment

methods meant that the researchers in each country were separated from the sample selection processes.

The measurement items were subjected to confirmatory factor analysis and composite scores to be computed. The segmentation analysis involved two-step cluster analysis. The decision to use a two-step clustering method was based on being able to: 1) combine the principles of hierarchical and partitioning methods, 2) handle categorical and continuous variables together to determine the number of clusters, and 3) analyze large or multiple data sets more easily than other clustering methods (Chiu et al. 2001, Mooi and Sarstedt 2011, Wedel and Kamakura 2012). Finally, One-way ANOVA was used for defining the segments.

Results

A total of 1025 responses were collected over the four countries. The sample is composed of 497 male respondents and 528 females. All of the age ranges are represented in the full data set, however there is a stronger concentration in the age groups spanning 25 – 65 years. In terms of education and occupation there is a good spread across the categories listed. The full characteristics of the overall sample and the breakdown by country are provided in Table 1.

Confirmatory factor analysis

The data sets for the four countries were checked and then incorporated into one data set which could be segregated by country where required. The first stage was to run the confirmatory factor analysis on the variables being used to determine the clusters. As mentioned, Motivation was separated into subjective (representing a more subjective aspect, using the first three scale items) and objective (representing a more objective aspect, using the three subsequent scale items). The psychometric properties of the constructs in the dataset were evaluated using CFA in AMOS 21. The fit of the CFA for the study conducted is acceptable, with $\chi^2 = 708.934$, $df = 104$, $\chi^2/df = 6.817$, ($p < .01$), comparative fit index (CFI) = 0.929, standard root mean square residual (SRMR) = 0.050, Incremental fit index (IFI) = 0.930 and root mean square error of approximation (RMSEA) = 0.075. Considering these goodness of fit measures, the model has an adequately suitable fit to the data. Table 2 shows that with the exception of objective motivation, the Composite Reliability (CR) scores for all of the constructs are above the recommended cut-off of 0.70, demonstrating good reliability (Nunnally and Bernstein 1994).

Table 1. Demographic characteristics of sample, full data set and by country.

Characteristic	Total Sample n = 1025	Australia n = 300	Chile n = 178	South Africa n = 381	Spain n = 166
Gender					
Male	497	150	97	176	74
Female	528	150	81	205	92
Age					
18 – 24 years	97	19	30	17	31
25–35 years	316	77	86	78	75
36–45 years	222	53	39	85	45
46–55 years	173	46	18	96	13
56–65 years	142	63	5	72	2
65+ years	74	41	0	33	0
Missing	1	1	0	0	0
Education					
High /Secondary school	193	96	1	105	2
TAFE/ Vocational	210	100	2	73	3
Undergraduate degree	197	75	25	94	24
Postgraduate studies	146	23	18	11	11
PhD or equivalent	257	2	131	4	113
Other	6	1	0	0	1
Missing	17	4	1	0	12
Occupation					
Domestic/home duties	42	32	2	7	1
Office/clerical/ admin	182	53	26	75	28
Hospitality service	21	14	0	7	0
Educator	23	6	0	17	0
Healthcare	51	12	6	23	10
IT sector	63	24	2	37	15
Management	129	28	40	99	20
Retired	279	67	94	45	73
Other	136	64	8	71	21

Table 2 further demonstrates that all item loadings are significant ($p < .01$), in support of convergent validity (Gerbing and Anderson 1988). Additionally, the average variance extracted of Involvement, Attitude and Security and Trust concerns are above the recommended 0.50, confirming convergent validity of the respective scales (Fornell and Larcker 1981). Average variance extracted of Satisfaction, Motivation one and Motivation two were slightly lower than the recommended cut-off. Inspection of inter-factor correlation matrix revealed low to moderately high correlations between different pairs of constructs. Considering the high values between Involvement and Attitude, Involvement and Motivation one, Satisfaction and Attitude and Satisfaction and Security and Trust Concerns, an additional assessment for discriminant validity was undertaken (Bagozzi and Yi 1990). The main reason

Table 2. Confirmatory factor analysis results.

Construct	Item number	Items description	Estimate	Z-value	CR	AVE
Involvement	INV1	INV1	.728	24.193	0.813	0.592
	INV2	INV2	.782	26.323		
	INV3	INV3	.797	1		
Attitude	ATT1	ATT1	.773	26.431	0.840	0.637
	ATT2	ATT2	.828	28.768		
	ATT3	ATT3	.793	1		
Satisfaction	SAT1	SAT1	.746	13.035	0.728	0.488
	SAT2	SAT2	.850	13.507		
	SAT3	SAT3	.429	1		
Security and Trust concerns	STC1	STC1	.699	1	0.835	0.629
	STC2	STC2	.820	23.640		
	STC3	STC3	.852	24.337		
Motivation one	MOT1	MOT1	.592	1	0.708	0.449
	MOT2	MOT2	.712	18.444		
	MOT3	MOT3	.700	15.958		
Motivation two	MOT5	MOT5	.923	3.564	0.576	0.467
	MOT6	MOT6	.280	1		

(N = 1025), All item loading are significant at $p < 0.01$ level.

for using this procedure is that the assessment of discriminant validity takes into account the sampling error of the correlation. Results show significant Chi-square difference between Involvement and Attitude ($\Delta\chi^2 = 127.671/8-243.411/9 = 115.74$, $df = 1$; $p < .01$), Involvement and Motivation one ($\Delta\chi^2 = 28.241/8-111.030/9 = 82.789$, $df = 1$; $p < .01$), Satisfaction and Attitude ($\Delta\chi^2 = 49.692/8-433.900/9 = 384.208$, $df = 1$; $p < .01$) and Satisfaction and Security and Trust Concerns ($\Delta\chi^2 = 64.427/8-495.07/9 = 430.643.399$, $df = 1$; $p < .01$) suggesting that each pair of construct is discriminant. The outcomes of this test and the low values of inter-factor correlations demonstrate that the constructs achieved discriminant validity. Table 3 shows these results.

Table 3. Inter-factor Correlations.

Constructs	1	2	3	4	5	6
Involvement	1					
Attitude	0.870	1				
Satisfaction	0.787	0.895	1			
Motivation one	0.801	0.719	0.615	1		
Motivation two	0.354	0.284	0.251	0.428	1	
Security and Trust Concerns	0.790	0.812	0.851	0.562	0.221	1

(N = 1025), All values are significant at $p < 0.01$ level.

Determining the segments involved a two-step cluster analysis using the six psychographic attributes to determine how the respondents cluster around these variables as distinct segments. The two-step clustering algorithm first undertakes a procedure that is very similar to k-means algorithm followed by a modified hierarchal agglomerative clustering procedure that combines the variables sequentially to form homogeneous clusters (Mooi and Sarstedt 2011). The cluster analyses results are reported using the variables' means determining each cluster. Descriptive labels are assigned to each cluster depending on the factor score variations suggesting different consumer segments. One-way ANOVA was used with descriptives to determine the differences in the profile variables for the segments.

Results for global segments' cluster analysis

The first step was to achieve an international view of potential clusters, which are termed the global segments' in this study. The full data set was used in the initial two-way cluster analysis. The six psychographic variables were subjected to cluster analysis using the *range of clusters solution* that permits researchers to set minimum and maximum numbers of clusters to determine a range of possible clusters. This initial step indicated that there were between three and four clusters for consideration. The two-step cluster analysis was re-run using the single solution step for both three and four clusters and the mean scores were visually inspected for adequate variations between the clusters. The four cluster solution best represented the nature of global consumer segments with 38%, 35%, 16% and 11% of the respondents respectively.

The two demographic characteristics selected were gender and age. However, the age categories were computed into generational cohorts as a surrogate measure of age: Generation Y (aged between 18 and 35 years), Generation X (aged between 36 and 55 years) and the Baby Boomers (aged between 56 and upwards). In this way the descriptive profile

was broadened since cohort segmentation has shown to provide insights into how such cohorts behave in SNS environments. Additionally, two SNS activities were used for profiling purposes: 1) average weekly time spent on Facebook, and 2) how often they joined brands' Facebook pages.

To provide the descriptive profiles for the segments, a one-way ANOVA was performed. The cluster membership variable generated in the two-step cluster analysis formed the independent variable and the Intentions to continue variable together with the demographic characteristics and the two Facebook activities were used as the dependent variables to describe each segment, as well as determine their statistical significance. This test showed that Intention to continue (f-stat. 406.66, df = 3, $p < .000$), average weekly hours on Facebook (f-stat. 12.64, df = 3, $p < .000$), and how often they join a brands' Facebook page (f-stat. 72.88, df = 3, $p < .000$) were significant. However gender (f-stat. 1.84, df = 3, $p > .05$ and f-stat. 1.70, df = 3, $p > .05$) and generational cohort (f-stat. 1.69, df = 3, $p > .05$) were not significant (see Tables 4 and 5).

Table 4. Psychographic clusters for the global segments.

Clusters	2	3	1	4
Numbers/percentage	386 (38%)	358 (35%)	167 (16%)	114 (11%)
Security and Trust	3.17	2.70	3.70	1.88
Subjective Motivation	2.66	1.92	3.36	1.46
Objective Motivation	3.08	2.76	3.78	2.06
Attitude	3.44	2.89	4.04	1.83
Involvement	3.11	2.22	3.75	1.46
Satisfaction	3.36	3.04	3.90	2.09

Notes: n = 1025

Country level clustering results

Having shown the global segments as a baseline to understanding how the respondents can be clustered on the psychographic variables, the next stage was to determine whether the clusters were validated by country. This approach makes it possible to determine if there are similar types of clusters between countries and whether their profiles are similar to the global segments identified. The full data set was split by country and the four-solution two-step cluster analysis and one-way ANOVAs were run for each country for the descriptive profiling of the clusters. The Australian, Chilean and Spanish showed similar clusters to those of the global segments identified, but with variations in their descriptive profiles. However, the South African data only matched three of the four segments identified. Rather than show the tabulated results for the four countries' cluster analyses and profile descriptors, these results are presented in tables that provides cross comparisons of each segment identified in the global and country level data

Table 5. Profile descriptors for the global segments.

Clusters	2	3	1	4
Numbers/percentage	386 (38%)	358 (35%)	167 (16%)	114 (11%)
Intention to continue#	3.27	3.90	4.20	2.52
Gender	Male (53%)	Male (52%)	Male (52%)	Female (59%)
Cohort	Gen Y	Gen X	Gen Y	Gen Y
Weekly use of Facebook*	1–2 hours	2–4 hours	4–8 hours	1–2 hours
Liking/joining *	Occasional	Occasional	Occasional	Seldom

Notes: n = 1025, *significant at 0.000.

Table 6. Cross comparison of *Social Seekers* between the global segment and the four countries.

Social Seekers	Global	Australia	South Africa	Chile	Spain
Numbers/percentage	167 (16%)	45 (15%)	65 (17%)	37 (21%)	21 (13%)
Security and Trust	3.70	3.71	3.70	3.75	3.81
Subjective Motivation	3.36	3.58	3.97	3.59	3.89
Objective Motivation	3.78	3.83	4.08	2.79	4.19
Attitude	4.04	4.07	3.83	3.90	3.93
Involvement	3.75	3.81	3.43	3.62	2.95
Satisfaction	3.90	3.99	3.80	3.71	3.30
Intention to continue [#]	4.20	4.20	4.32	4.05	4.27
Gender	Male	Female	Female	Male	Male
Cohort	Gen Y	Gen Y	Gen X	Gen Y	Gen X
Weekly use of F-B [*]	4–8 hours	8–12 hours	4–8 hours	1–2 hours	4–8 hours
Liking/joining [*]	Occasional	occasional	Seldom	Seldom	Occasional
Total Sample size	1025	300	381	178	166

[#]Intention to continue was not put into the two-step cluster analysis, instead it was included in the one-way ANOVA to determine the mean scores and significance.

^{*}significant at 0.000 level.

Cross national comparisons

The cross comparisons between the global segments derived from the full data set and the four country level segments are shown in Tables 6 to Table 10. The results for each segment are presented in more detail below and the implications of the findings are integrated in the discussion section.

Table 6 compares the full results for the *Social Seekers'* segments, which is the first of the two segments that show promise for marketing segmentation activities. They are so named as they reflect the segment that has the most positive scores for the six psychographic variables and intention to continue. Overall, the *Social Seekers* in all four countries tend to be one of the smaller segments, ranging from 16% in the global segment to 21% in the Chilean segment. In the cross comparisons the countries' mean scores for security and trust concerns are similar to the global segment score (ranging from 3.70 for the global segment to 3.81 for Spain). These results suggest they tend to have more positive beliefs that the firms that they engage with through Facebook are more likely to have their best interests at heart as they show less concerns with security and trust issues from joining these pages. As with the global segment results, the four counties' *Social Seekers* are likely to be somewhat motivated by both subjective and objectives reasons for engaging with their selected brands through this SNS. However, the South African and Spanish results show that mean scores are over 4.0, suggesting a somewhat stronger focus on objective reasons for *Social Seekers* in these two

Following this theoretical reasoning that positive beliefs and motivations under pin positive attitudes, this is evident in the mean scores for the global and the Australian *Social Seekers* (4.04 and 4.07 respectively). However the attitude scores range from 3.83 (South Africa) to 3.93 (Spain) for attitude suggesting a more modest outcome.

The extended theoretical reasoning is that positive attitudes should underpin consumers' sense of involvement and satisfaction with brands' Facebook pages. What is noted in the results is that satisfaction is the stronger outcome variable compared to involvement, particularly for Australia, South Africa and Chile, where there is a closer match to the global segment. The Spain data has a mean score of 2.95 for involvement and 3.30 for satisfaction, which shows a lower match to the global segment. However, this line theoretical reasoning is not confirmed for the Spanish *Social Seekers*, where the mean score on involvement is under 3 and rises to a modest 3.30 for overall satisfaction. The final variable to consider is whether the *Social Seekers* intend to continue this behavior, as this has managerial implications. The cross comparisons show that, similar to the global segment, the mean scores across the four countries are over 4.0, with South Africa showing the highest score at just over 4.3 suggesting strong intentions to continue.

Turning to the consumer profile characteristics, ideally there should be similarities between the global *Social Seekers'* profile and those identified in the four countries if the notion of a true global segment is present. This was not confirmed in these findings. ANOVAs for both the global segment and the four countries showed that gender and generational cohorts were not statistically significant. This implies that although the likelihood of the segment containing males or females or in a specific generational cohort as shown in Table 7, they need to be treated with caution. However, the two Facebook activities were statistically significant for both the global segment and the four countries, suggesting that these are more important profile descriptors for the segments.

Table 7. Cross comparison of *Social Satellites* between the global segment and the four countries.

Social Satellites	Global	Australia	South Africa	Chile	Spain
Numbers/percentage	386 (38%)	84 (28%)	129 (34%)	82 (46%)	84 (51%)
Security and Trust	3.17	3.28	3.17	3.14	3.04
Subjective Motivation	2.66	2.76	3.06	1.95	2.23
Objective Motivation	3.08	3.27	2.95	3.15	3.10
Attitude	3.44	3.60	3.45	3.29	3.43
Involvement	3.11	3.00	3.19	2.80	2.83
Satisfaction	3.36	3.65	3.31	3.21	3.38
Intention to continue [#]	3.27	3.90	3.82	3.57	3.69
Gender	Male	Male	Male	Male	Male
Cohort	Gen Y	Gen X	Gen X	Gen Y	Gen X
Weekly use of F-B [*]	1–2 hours	Over 20 hrs	2–4 hours	2–4 hours	2–4 hours
Liking/joining [*]	Occasional	Occasional	Occasional	Occasional	Occasional
Total Sample size	1025	300	381	178	166

[#]Intention to continue was not put into the two-step cluster analysis, instead it was included in the One-way ANOVA to determine the mean scores and significance.

^{*}significant at 0.000 level.

Table 8. Cross comparison of *Social Fringe* between the global segment and the four countries.

Social Fringe	Global	Australia	South Africa	Chile	Spain
Numbers/percentage	358 (35%)	129 (43%)	65 (18%)	46 (26%)	53 (32%)
Security and Trust	2.70	2.78	2.00	2.50	2.60
Subjective Motivation	1.92	2.42	1.56	1.46	1.70
Objective Motivation	2.76	2.92	2.43	2.59	2.31
Attitude	2.89	2.96	2.16	2.45	2.66
Involvement	2.22	2.59	1.62	1.72	1.95
Satisfaction	3.04	3.12	2.42	2.63	2.85
Intention to continue [#]	3.90	3.27	2.18	2.64	2.94
Gender	Male	Male	Male	Female	Male
Cohort	Gen X	Gen X	Gen X	Gen Y	Gen X
Weekly use of F-Book [*]	2–4 hrs	4–8 hrs	1–2 hours	2–4 hours	1–2 hours
Liking/joining [*]	Occasional	Occasional	Seldom	Seldom	Seldom
Total Sample size	1025	300	381	178	166

[#]Intention to continue was not put into the two-step cluster analysis, instead it was included in the one-way ANOVA to determine the mean scores and significance.

^{*}significant at 0.000 level.

Cluster two has been named the *Social Satellites*, as in comparison with the *Social Seekers*, they appear to be more moderately Social Seekers with brands' Facebook pages. The *Social Satellites* represent a cluster of interest for marketing purposes given their larger size in both the global segment and the four country level segments. The *Social Satellites* in the global segment and the Australian segment are the second largest cluster (38% and 28% respectively). However, they are the largest segment in Chile (46%), South Africa (34%) and Spain (51%). Table 8 shows the cross comparison results for this segment.

Cross comparisons show strong similarities between the global segment and four country segments for security and trust concerns. The scores are just over 3.0 suggesting a degree of ambivalence as to whether consumers in the *Social Satellites* segments believe that firms have their Facebook consumers' best interests at heart. The global and the four country *Social Satellites* segments appear to be slightly more motivated by objective reasons for engaging with brands' Facebook pages than subjective ones. Regarding antecedents under pinning attitude, the means scores for the global and country-level segments were slightly above 3.0 suggesting some movement towards positive attitudes.

In comparison with the global segments' mean score for involvement which was above 3.0, only Australia and South Africa were similar. Chile and Spain's scores were around 2.8. However, satisfaction scores were above 3.2 for all of the *Social Satellites* segments. Despite these somewhat low scores for involvement and satisfaction, the four countries' mean scores for intention to continue joining and engaging with brands' Facebook pages were above 3.5, with Australia and South African showing the highest scores of 3.90 and 3.82 respectively, compared to the global segment (3.27).

With respect to cross comparisons for the profiling of the *Social Satellites*, the common factor for the global segment and the four countries is that they are all potentially males, although this descriptor was not statistically significant. A majority of the segment are likely to be in the Gen X group, with only the global segment and Chile in the Gen Y group. None of the countries match the low weekly average use of Facebook shown for the global segment (1–2 hours), with the majority showing 2–4 hours. In the cross comparisons for how often they like or join a brand's Facebook page, both the global and four country results show that this activity is only occasional. Australia has the highest average per week of over 20 hours, but this high level of engagement does not translate in to high likelihood of joining brands' Facebook pages.

The *Social Fringe* segment show lower mean scores for the psychographic variables, which suggests that they do not overly engage with brands' Facebook pages. As shown in Table 8, the *Social Fringe* make up the second largest segment in the global results (35%), and in both Chile (26%) and Spain (32%), but for Australia (43%) and South Africa (34%), they are the largest segments. The results show that for both the global segment and the four country segments, they have quite negative perceptions of the security and trust issues with brands' Facebook pages with scores ranging from 2.0 in South Africa to 2.78 in Australia). Although in the 2.0 range, the *Social Fringe* are more likely to be motivated by objective reasons for interacting with brands' Facebook pages. Mean scores for all of the antecedent variables, together with attitude, and involvement are below 3.0 for all of the *Social Fringe* segments. For satisfaction, similar to the global segment, the mean score for Australian *Social Fringe* rises to just over 3.0, suggesting neutral opinions about engaging with firms through Facebook. This is also shown in their *intentions to continue* joining or engaging with brands through Facebook as the Australian mean score, is 3.27, compared to the global segment at

3.90. For Chile, South Africa and Spain, the mean scores for continuance behavior is below 3.0.

Using the profiling variables to describe the *Social Fringe* clusters, results show that the global segment and the Australian, South African and Spanish segments match in that they could be males and Gen X. However, the other descriptors do not show a match with noted variations in the global and four country *Social Fringe*, showing differences in the two Facebook activities.

The final cluster has been named the *Disinterested* owing to their very low mean scores for all of the psychographic variables. This segment is apparent in the global segment, Australia, Chile and Spain, but not in the South African data, as identified earlier. Table 9 shows the cross comparison results. This segment represents the smallest clusters in all of the results, ranging from 5% in Spain to 14% in Australia.

The mean scores for the psychographic variables including attitude, involvement and satisfaction are all under 2.5. With the exception of the global segment and Australia (both at 2.52), the mean scores for intention to continue joining brands' Facebook pages are below 1.5, suggesting very low intentions to continue joining or engaging with brands through Facebook.

The profiles show that similar to the global segment, they are all likely to be female and range across the three generational cohorts, with Australia being the oldest cohort. Their average weekly hours using Facebook are low, ranging from 1 – 2 hours, rising to 2–4 hours for Spain. They are all seldom likely to join a brand's Facebook page.

However, the South African data only matched three of the four segments identified. As noted in Table 10, the *Disinterested* segment was not evident in the South African data. Instead a segment, named the *Social Tourists*, was found to sit between the *Social Satellites* and the *Social Fringe*, representing the second largest cluster (31%). While their mean scores for the underpinning antecedents to attitude are similar to the *Social Fringe*, the results show that for attitude, satisfaction and intentions to continue, the scores rise to just over 3, suggesting that they are more similar to the *Social Satellites* than the *Social Fringe* in these potential predictions of behavior. The *Social Tourists*' profile suggests they could be males and Gen X. Their average weekly use of Facebook is 8 – 12 hours suggesting they are highly active with SNSs, although they seldom join brands' Facebook pages.

Table 9. Cross comparison of *Disinterested* between the global segment and Australia, Chile and Spain only.

Disinterested	Global	Australia	Chile	Spain
Numbers/percentage	114 (11%)	42 (14%)	13 (7%)	8 (5%)
Security and Trust	1.88	2.16	1.25	1.97
Subjective Motivation	1.46	1.51	1.26	1.17
Objective Motivation	2.06	2.19	1.26	1.25
Attitude	1.83	2.13	1.23	1.62
Involvement	1.46	1.63	1.18	1.17
Satisfaction	2.09	2.42	1.37	1.59
Intention to continue [#]	2.52	2.52	1.23	1.42
Gender	Female	Female	Female	Female
Cohort	Gen Y	Baby Boomer	Gen Y	Gen X
Weekly use of F-Book [*]	1–2 hours	1–2 hours	1–2 hours	2–4 hours
Liking/joining [*]	Seldom	Seldom	Seldom	Seldom
Total Sample size	1025	300	178	166

[#]Intention to continue was not put into the two-step cluster analysis, instead it was included in the one-way ANOVA to determine the mean scores and significance.

^{*}significant at 0.000 level.

Note: The South African data did not identify a Disinterested segment.

Table 10. Psychographic and demographics for the segments in South Africa.

	Social Satellites	Social Tourists	Social Fringe	Social Seekers
Numbers/percentage	129–34%	121–31%	65–18%	65–17%
Security and Trust	3.17	2.74	2.00	3.70
Subjective Motivation	3.06	2.12	1.56	3.43
Objective Motivation	2.95	2.90	2.43	3.80
Attitude	3.45	3.01	2.16	4.08
Involvement	3.19	2.44	1.62	3.97
Satisfaction	3.31	3.13	2.42	3.83
Intention to continue [#]	3.82	3.28	2.18	4.32
Gender	Male	Male	Male	Female
Cohort	Gen X	Gen X	Boomers	Gen Y
Weekly use of Facebook [*]	2–4 hours	8–12 hours	1–2 hours	4–8 hours
Liking/joining [*]	Occasional	Seldom	Seldom	Seldom

n = 381.

[#]Intention to continue was not put into the two-step cluster analysis, instead it was included in the one-way ANOVA to determine the mean scores and significance.

^{*}significant at 0.000 level.

Discussion and conclusions

The main objective of the research was to attain an understanding of how consumers using brands' SNSs can be segmented according to psychographic factors that determine their levels of engagement and subsequent influence on managerial outcomes such as involvement, satisfaction and revisit intentions. The findings provide several theoretical and practical contributions to academics, brand managers and digital marketing managers.

Theoretical implications

First, this study expands marketing researchers' current knowledge of segmenting consumers on brands' SNSs, by using six psychometric variables in a more theoretically derived approach. These segmentation variables not only assist researchers to understand security and trust concerns and motivations underpinning consumer attitudes, but also highlight the relationships between these antecedent conditions in terms of outcomes such as involvement and satisfaction that may be more direct predictors of continued behavior. The managerial outcome relating to intentions to continue the behavior of interest, in this case, engaging and joining brands' Facebook pages, was not included as a segmentation variable. This approach reduced its impact on the mean scores for the segmentation variables in general. It also permitted insights into the theoretical relationships underpinning involvement and satisfaction, the two intermediate variables of interest that enhance consumers' likelihood of continuing to engage with a brand's SNS offering.

The second contribution relates to research on international consumer segments, which is of interest to international marketing and management researchers and consumer marketers. The study identifies segments that are evident at both a global and country level. The findings, therefore, support researchers in their pursuit of a stronger understanding of global homogenized consumer segments who will think and act in ways that transcends their cultural identities when Social Seekers with brands through SNSs (Pookulangara and Koesler 2011, Strizhakova, Coulter, and Price 2012). Additionally, the findings support researchers who are interested in a 'theory of glocalization' (Maynard and Tian 2004), providing some evidence of using a global/local or 'glocal' approach to international segmentation studies through cross comparisons of the global segments with the four country level segments.

Managerial implications

Our findings have several implications to help brand managers understand that potential segments in SNSs is a critical challenge and must be managed appropriately (Canhoto, Clark, and Fennemore 2013), particularly in emerging markets (Bianchi and Andrews 2015). Identifying the different the different consumer segments in brands' SNS and understanding their specific characteristics provides managers with insights to improve the way they develop and operate their SNS communication strategies (Gironda and Korgaonkar 2014).

First, our findings show clear evidence of two segments, that when combined, show much promise for practitioners at both a global and local country level. While the *Social Seekers* are uniformly one of the smaller clusters in the cross comparison findings, they still constitute a marketable segment for multinational firms' SNS marketing strategies. However, when combined with the *Social Satellites* for SNS marketing purposes these two segments constitute a sizable group (54%). Moreover, at the individual country level, when combined they constitute sizeable groups. However, their mean scores are clustered more around the

moderately positive side, suggesting that social network marketers need to position their product offering in ways that provide compelling reasons for interactions.

Second, the findings present insights into areas where SNS marketing strategies can have impact for firms and brands. For example, brand managers could focus on emphasizing social benefits in their SNSs so that consumers can be attracted to visit a site more often, thereby also increasing their likelihood of reading up on new products and other company information, as well as engaging in other activities. Furthermore, advertising campaigns that tap into consumers' subjective motivations for engaging with a brand can utilize hedonic aspects suggesting fun and enjoyment. Because the combined segment is also motivated by objective reasons, the campaigns can ensure that the utilitarian 'rewards' are evident. Developing more active brand interaction strategies where consumers contribute or create content may lead to a stronger sense of involvement, and as such may create satisfying experiences that lead to being more open to other brands' social marketing campaigns. However, this marketing activity should not supersede consumers' need to perceive that the firm has their best interests at heart in terms of security and trust concerns.

Third, as the segments were profiled on generational cohorts rather than age brackets so commonly used, the findings provide marketers with a broader way of thinking about target segments (Markert 2004). Thus, marketers can translate some of the cohort-based characteristics and behaviors into SNS advertising and marketing strategies. Finally, as the combined *Social Seekers* and *Social Satellites* segments are supported at both a global and local country levels, social marketing strategies also may be further enhanced taking what Maynard and Tian (2004, p. 288) call a "glocal strategy" that can be applied to advertising and marketing. The implication of this thinking suggests that multinational firms' can integrate global SNS marketing strategies in ways that also take into account local differences to accommodate for culture. The *Social Fringe* are more suitable for local SNS marketing campaigns as they have a range of negative perceptions and behaviors towards brands' Facebook pages in the study. However, they do represent the late adopters in this regard, and so could be encouraged to move up to the *Social Satellites* segment through encouraging SNS word of mouth or friends 'liking' firms that may encourage them to engage more.

The *Disinterested* overall are the smallest segments representing the laggards for marketers both globally and locally. As with any group of laggards though, they may find more compelling reasons to join other forms of brands' SNSs that require less engagement, such as Twitter or other limited character environments, or to join for more specific reasons related to brands that they currently purchase (e.g., Canhoto and Clark 2013), or that they engage with (Pozza 2014, Presi, Saridakis, and Hartmans 2014, Qu et al. 2013).

Overall, the findings provide interesting insights into consumer segments in relation to brand SNS engagement behavior, which is emerging as a very important topic in the marketing literature (Van Doorn et al. 2010, Tafesse 2016, Gummerus, Liljander, Wemen, et al. 2012). The study's findings contribute to the growing body of knowledge on consumer engagement in SNSs and provide theoretical and managerial implications that may help future scholars and practitioners.

Limitations and future research

As with any research project, several limitations need to be discussed. However, these can also be framed as future directions for research. First, the study collected data from four

different geographical regions, two of which (Latin America and Africa) are recognized as being more challenging places to conduct quality research (e.g., Fastoso and Whitelock 2011, Lages, Pfajfar, and Shoham 2015). Some of the concerns regarding sampling were controlled by using university alumni databases in Chile and Spain, and market research consumer panels for the sample in South Africa and Australia. It is acknowledged, however that in some respects the true nature of the countries' social network populations may have not been captured. In mitigating this limitation, the data collection methods achieved four samples that could provide informed and relevant opinions of the topic area to achieve the objectives of the study. However, future research should try to address this limitation by collecting data without reliance on such captive respondents who represent more selective groups in a country's population.

Second, country was not used as a proxy for culture or as being representative of any collectivist/individualist aspects of culture in order to avoid issues in measuring culture in consumer behavior (Gong et al. 2014). The data was collected from four countries with no claims as to their representativeness of their cultural dimensions as the focus of interest was in investigating notions of global and local segments only. In conclusion, continued segmentation research is needed to determine appropriate ways to segment brands' SNS consumers, either in terms of their interactions with SNSs or in response to SNS campaigns.

Finally, this study focused on only on one SNS: Facebook. Although Facebook is the leading SNS in the world (Statista 2017), future studies should consider other SNSs where firms and brands also have presence, such as Google, YouTube, Twitter and Instagram, to gain a broader understanding of consumers using brands' SNSs can be segmented. It also would be interesting to replicate this study in other countries with different levels of consumer engagement in SNSs for comparisons between markets.

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Appendix 1

Measurement items

Security and Trust Concerns with brands' Facebook pages (San Martin and Lopez-Catalan 2013)

- I think that brands' Facebook pages usually fulfil their promises.
- I think that the information offered by brands' Facebook page are reliable.
- I feel I can trust the information from brands' Facebook pages.
- This brand's Facebook pages seldom/never makes false claims.
- I think that the brands' Facebook pages usually behave ethically.

Involvement with firm's products (brand product/service engagement)(San Martin and Lopez-Catalan 2013)

- I am very interested in the products and services offered through the brands' Facebook pages that I belong to.
- My level of involvement with the products and services offered through the brands' Facebook pages that I belong to is high.
- I am particularly involved with the products and services offered through the brands' Facebook pages that I belong to.

Satisfaction with firms' Facebook pages (San Martin and Lopez-Catalan 2013)

- I am satisfied with brands' Facebook pages
- I feel pleased with brands' Facebook pages
- My experience with brands' Facebook pages has proved satisfactory
- Broadly speaking, I am satisfied with the way I have been treated through brands' Facebook pages.

Attitude (Yang 2010)

- Joining brands' Facebook pages is a good idea
- I am favorable about using brands' Facebook pages
- Using brands' Facebook pages is a wise idea
- I am positive about engaging with brands' Facebook pages

Consumers' motivations to visit firm's Facebook pages (Muntinga, Moorman, and Smit 2011)

Subjective

- I visit or like a brand's Facebook page to relax
- I visit or like a brand's Facebook page to connect with like-minded others
- I visit or like a brand's Facebook page to express myself

Objective

- I visit or like a brand's Facebook page to seek product/brand/company-related information
- I visit or like a brand's Facebook page to influence other people or the company
- I visit or like a brand's Facebook page to get some economical payoff, such as discount, free trials, or gifts.

Intention to continue the behavior (Yang 2010)

- I intend to continue joining brands' Facebook pages
- I intend to continue using brands' Facebook pages
- I expect my engagement with brands' Facebook pages to continue in the future