The African Journal of Information Systems

Volume 9 | Issue 1

Article 2

January 2017

Dynamite in small packages: the Engaged Elite as an Facebook emerging niche market

Melanie Wiese University of Pretoria, melanie.wiese@up.ac.za

Gene Van Heerden University of Pretoria, gene.vanheerden@up.ac.za

Tania Maree University of Pretoria, tania.maree@up.ac.za

Follow this and additional works at: https://digitalcommons.kennesaw.edu/ajis

Recommended Citation

Wiese, Melanie; Van Heerden, Gene; and Maree, Tania (2017) "Dynamite in small packages: the Engaged Elite as an Facebook emerging niche market," *The African Journal of Information Systems*: Vol. 9 : Iss. 1, Article 2. Available at: https://digitalcommons.kennesaw.edu/ajis/vol9/iss1/2

This Article is brought to you for free and open access by DigitalCommons@Kennesaw State University. It has been accepted for inclusion in The African Journal of Information Systems by an authorized editor of DigitalCommons@Kennesaw State University. For more information, please contact digitalcommons@kennesaw.edu.



Coles College of Business

Dynamite in small packages: the Engaged Elite as an Facebook emerging niche market

Cover Page Footnote

The financial assistance of the National Research Foundation (NRF) towards this research is hereby acknowledged. Opinions expressed and conclusions arrived at, are those of the author(s) and are not necessarily to be attributed to the NRF



Dynamite in Small Packages: the Engaged Elite as an Emerging Facebook Niche Market

Research Paper Volume 9, Issue 1, January 2017, ISSN 1936-0282

Melanie Wiese University of Pretoria melanie.wiese@up.ac.za Gené van Heerden University of Pretoria gene.vanheerden@up.ac.za

Tania Maree University of Pretoria tania.maree@up.ac.za

(Received August 2015/Accepted September 2016)

ABSTRACT

Social networking sites, such as Facebook, have gained immense popularity as communication platforms and as advertising tools. Generation Yers have a strong need to engage with others and make connections-digitally and in person. This paper examines the Facebook behavior of Generation Y by means of a self-administered survey of 383 university students. The purpose of this research was to determine whether clusters of Generation Y Facebook users could be identified on the basis of their Facebook behavior and usage. All multi-item constructs were subjected to an exploratory factor analysis and a two-step cluster analysis. Three clusters emerged: "Engaged Elite," "Neutral Masses," and 'Facebook Floaters." The results indicate that Facebook remains a feasible channel to initiate and engage in a number of marketing activities. However, the focus should not be on 'pushing' content and information, but rather on engaging the users__and to facilitate sharing between users across their networks.

Keywords

Facebook behavior, information technologies, Generation Y, engagement, social media, advertising, communicating.

INTRODUCTION

The essence of social media is knowing your audiences, and engaging them in something they love' (Laurie Boettcher in an interview with Bokhari, 2012). Information technologies, especially social media, have changed the way people communicate (Wu, Sun and Tan, 2013:257). As information technology advances, online social networks provide a new way for individuals to connect and to access information sources. According to Pérez-Latre, Portilla and Sánchez-Blanco (2011:69), the internet changes how consumers learn, collect information, and how they connect with each other. This is especially true of the younger generations, who have switched their communication platforms to online social networks (Bolton, Parasuraman, Hoefnagels, Migchels, Kabadayi, Gruber, Komarova Loureiro and Solnet, 2013; Chou and Chou, 2009).

Facebook is recognized as one of the world's largest SNSs, with an estimated daily average of 829 million users and 1 590 billion active monthly users (Statista, 2016b). At the end of 2014, Facebook members between the ages of 16 and 34 represented 53% of global users (Statista, 2016a). These users form part of the Generation Y cohort. Born approximately between the years 1980 and 2000, Generation Yers have grown up in the midst of the technological advancements of the Internet Age. Duffett (2015:262) suggests that Generation Y may be a globally homogenous group, as the results of his South African study corresponded to those in developed countries.

Although limited in scope, some attempts have been made to segment social media consumers. Various studies have addressed social media activities on Facebook (Vinerean, Cetina, Dumitrescu and Tichindelean, 2013) while others have attempted to segment online users according to their 'web-usage'lifestyles (Brengman, Geuens, Weijters, Smith and Swinyard, 2005), online shopping behavior (Vellido, Lisboa and Meehan, 1999), as well as their adoption motives and SNS behavior (Lorenzo-Romero, Constantinides and Alarcón-del-Amo, 2012). Most studies focus on one or two aspects and neglect to form a holistic view of the SNS users based on their online behavior, which is the main aim of this study. Therefore the limited research available and to incorporate a more comprehensive number of related constructs to cluster or segment Facebook users, served as the motivation for this study.

Clustering users enables the identification of viable market segments. According to Pérez-Latre et al. (2011:67), social media is a useful instrument for segmenting markets and for investigating niche audiences. As segments that arise from clustering can be described in terms of measured behavior, it empowers marketers to develop targeting strategies specifically tailored to a particular segment or segments. In previous research (such as Brengman et al., 2005; Vellido et al., 1999), the constructs used to cluster the respondents were investigated separately and in isolation from one another, which did not provide a rounded view of the user. Furthermore, the focus in such studies was mainly on developed countries. The approach used in this study allows for a more holistic view and understanding of Facebook behavior in an emerging South African context. This leads to the primary objective of the study, to cluster young South African Generation Y Facebook users on the basis of their behavior on Facebook. This should enable marketers to effectively target and engage viable groups within the Facebook user base.

The contribution of this study is the inclusion of multiple individual and group variables to establish typologies of Facebook users in a large, emerging country context—South Africa. This study provides an in-depth understanding of why active Facebook users behave in the way they do, providing a holistic view of such behavior. The constructs included in the study follow a particular cascade approach starting with privacy concerns and trust; then use integration of Facebook in users' lives; activities participated

in on Facebook; then moves to the engagement on Facebook; Facebook advertising and peer influence; the importance of Facebook in users' social lives and, ultimately, the measurement of intention to buy.

This study investigates Generation Y perceptions of their own Facebook behaviors. This was achieved by utilizing a structured questionnaire completed by 383 undergraduate students. The results found three identifiable clusters, namely, the Neutral Masses, Facebook Floaters and the Engaged Elite. The last cluster, in particular, represents a niche segment that warrants the attention of marketers seeking to attract the lucrative Generation Y market.

The study is structured as follows: the context Facebook and Generation Y, the reason for the selection of each of the constructs, followed by the research method, results specifically referring to the cluster analysis, a discussion on these findings, implications for managers, limitations and future directions, ending with concluding remarks.

LITERATURE REVIEW

This study investigates Generation Yers' perceptions of their Facebook behavior. There are two aspects that shape the context of this study and are discussed next.

The Facebook Context and the Generation Y Respondent

The use of social media has grown exponentially and the popularity thereof can be attributed to various reasons. Social network sites have an integral role in social learning (Gachago, Backhouse, Bosman and Bozalek, 2013), working life (Lampe, Ellison and Steinfield, 2006), to establish and maintain relationships (Lin and Lu, 2011:1152) but also to gather input for their purchase decisions (Kamatchi, 2014). Fortune magazine reported that 1 billion people logged on to Facebook on Monday 24 August 2015, which was the first time Facebook had surpassed 1 billion users in one day, meaning that 1 in 7 people in the world used Facebook to connect with their friends and family (Matthews, 2015). In South Africa specifically, there are an estimated 11.8 million Facebook users (Goldstuck, 2015:53). The use of mobile phones in Africa, and especially in South Africa, has grown substantially; and this increases the accessibility of Social networking sites (SNS). Payton, Morais and Heath (2015) found that the majority of South Africans use mobile phones for social use, such as SMSs or Facebook. According to Goldstuck (2015), almost 87% of South African Facebook users access Facebook via their cellphones. Furthermore, according to Wilson, Gosling and Graham (2012:204), Facebook is a relevant platform to examine for three reasons. First, an abundance of 'concrete, observable data' is created by all the activities that people engage in on Facebook. Second, its massive user base presents it as a valuable source to investigate and third, the growth of SNS offers new advantages as well as threats, which require contemplation. Practitioners are thus under pressure, not only to incorporate social media into their marketing strategies (Campbell, Lambright and Wells, 2014) but also to provide evidence of profitable segments (Canhoto, Clark and Fennemore, 2013).

Duffett (2015:262) proposes that Generation Y may be a globally homogenous group, as the results of his South African study corresponded to those in developed countries. Research on this generation suggests that the Generation Y lifestyle is mostly about being constantly connected digitally, and that these diverse consumers have short attention spans, enjoy collaborating, dislike traditional forms of marketing and have a high affinity for new forms of media consumption (Claveria, 2016). These factors, as well as their strong need to engage and connect with others – both digitally and in person—can explain the popularity of social networks among this generation. Generation Yers are heavy social media users and enjoy visually stimulating and engaging user experiences (Claveria, 2016). Furthermore,

owing to the large size of this market, they present a very lucrative segment. In South Africa, they now comprise around 20 million people (Statistics South Africa, 2015:82). Generation Yers from tertiary institutions comprise a very attractive target market group when it is considered that tertiary education is correlated with increased earning potential (Bevan-Dye, Garnett and de Klerk, 2012). Kennedy (2001) posits that Generation Yers have tremendous spending power, and younger members also exert considerable influence over their parents' spending. The spending power of university or college Generation Yers is estimated around \$200 billion annually (Gardyn, 2002). Furthermore, the consumption-driven society these individuals grow up in, and the fact that they have more money available (Morton, 2002) contribute to their attractiveness as a market. The SA Shopper Youth Report (WhyFive, 2015) states that over 80% of young South Africans (16 to 24 years old) are buying online. For all these reasons, understanding Generation Y consumers (and inherently the student market) is very important from a marketer's viewpoint (Noble, Haytko and Phillips, 2009).

The Constructs Included for Clustering

Social media users are integrating such platforms into their day-to-day lives more and more, and satisfying personal and social needs via social media (Raacke and Bonds-Raacke, 2008:173). Facebook allows users to create profiles featuring personal information such as name, surname, gender, birthday, contact details and more voluntary details (Nadkarni and Hofmann, 2012:243). It also features an array of activities such as communicating, posting, sharing and liking photos and videos, sending messages and liking/commenting on other users' profiles. Based on the activities and frequency of engaging in the various activities, different types of users can be identified (Vinerean et al., 2013).

Essentially, consumers do not use SNS only to connect with others, but also to gather input for their purchase decisions (Kamatchi, 2014) and as a source of information. Chu (2011:30) reports that consumers are increasingly turning to SNSs, such as Facebook, as trusted sources of information and opinions. Actively communicating and sharing information between people on Facebook creates a fast, easy and effective way of influencing consumers' beliefs and attitudes. This is due to social media having both the ability to transfer messages to target audiences and the capability of supporting important relationships (Castronovo and Huang, 2012). Facebook also allows for viral marketing and word-of-mouth, mainly due to elevated levels of consumer engagement. Opinion leaders have a large influence on the beliefs, actions and values of other consumers, and social networks and blogs enable them to reach masses of other users effectively (Acar and Polonsky, 2007). Ellison, Steinfield and Lampe (2007:1143) state that online social media allow users to connect with others who share comparable opinions and interests, thereby facilitating peer communication and information sharing. Vinerean et al. (2013:66) state that communication among peers via the online social media is 'a new form of consumer socialization' and that such communication has a particularly profound impact on consumer decision-making. So, consequently, it also influences marketing strategies. Consumers use Facebook to engage not only with other users but also with brands, whereas organizations use it to build and manage a community of individuals to promote their brands. SNS platforms thus allow firms the opportunity to engage with consumers and for customers to engage with firms (So, King and Sparks, 2012:1), as these platforms could be used to form a relationship between customers and firms.

SNS provide new ways to market products and brands, and users could be on the receiving end of various types of advertisements. These adverts may come directly from companies or via postings of friends, and usually appear in users' Facebook newsfeed or sidebars. Firms can promote their products or brands through a branded Facebook page or fan page. However, Facebook advertising can also be

achieved with banner-style marketing (Curran, Graham and Temple, 2011). Banner adverts are interactive posters that usually run down the right-hand side of users' Facebook profiles. However, owing to the increased use of these banner adverts, users can either consciously or unconsciously ignore the information that is presented in banners. This is termed 'banner blindness', as users increasingly tend to ignore branded content on social media (Taube, 2015). Users can also employ various options to ensure 'Ad blocking' or filtering by removing or altering advertising content on their Facebook newsfeeds, making it increasingly difficult for advertisers (Bhat, 2015). Therefore companies are attempting to exploit more subtle and indirect methods of marketing on Facebook via polls, competitions, reviews or 'check in' buttons, giving a brand or firm exposure (Curran et al., 2011). One of the main advantages of Facebook is that advertisers can profile users' interests, thereby enabling companies to send specific and directed advertisements to users they have identified as their primary target market. Such advertising is referred to as targeted advertising and a form of commercial solicitation, which depends on information that is both willingly and unwillingly provided by users (McStay, 2011).

Although the benefits and advantages of commercial solicitation are clear for companies, the users who are being profiled and whose movements are being tracked, without their consent, or even their knowledge, consider this to be a privacy concern (Turow, King, Hoofnagle, Bleakley and Hennessy, 2009). To protect their privacy, users can also install ad-blockers that make it impossible to track their online behavior and in doing so prevent Facebook from matching their online activities with targeted advertising. Taylor, Lewin and Strutton (2011:261), contend that the rapid growth of SNS usage warrants a focus on consumer attitudes toward social media advertising. Furthermore it is important to determine users' attitudes and behaviors toward these advertising efforts, as attitudes toward advertising affect consumers' responses toward advertising, which eventually affects their buying behavior (Mitchell and Olson, 1981:320).

The various constructs alluded to will now be discussed in more detail. The discussion is structured to first highlight the constructs privacy concern and trust, then follows a discussion on the integration of Facebook usage as part of users' lives. A discussion on the activities that users participate in on Facebook follows, where after users' perceptions of the importance of Facebook to social lives is discussed. The discussion ends by focusing on marketing related constructs where engagement, peer influence and advertising are discussed.

Privacy concerns

Customer privacy is a significant matter in marketing, especially due to the growth of commercial transactions on the internet (Rust, Kannan and Peng, 2002). More specifically, SNS privacy concerns are becoming even more important for marketers. SNS are easily available and accessible and their interactive nature creates a lot of vulnerability – specifically regarding personal information. In South Africa, the Protection of Personal Information (POPI) Act aims to protect an individual's personal information from misuse by companies – thus ensuring that citizens have the right to privacy. The protection includes all instances of information and impacts the way firms engage with customers and collect information on social media platforms such as Facebook. Thus, any information collection via social media channels are also governed by POPI, so Facebook and any parties that access and view users data need to conform to the POPI requirements (Cerebra, 2014 1-6).

Consumers' privacy concerns could lead to them adopting data/information protection features, or even steering their choice in the direction of competing businesses. However, approaches to measure privacy concerns vary. Some of the most pertinent scales include the 'Concern for Information Privacy' (CFIP)

(Smith, Milberg and Burke, 1996); Sheehan and Hoy's (2000) scale that focuses on privacy concerns and privacy-invasive practices; the scale of 'Internet users' information privacy concerns' (IUIPC) (Malhotra, Kim and Agarwal, 2004), and others such as Dinev and Hart (2004). These scales are designed specifically to measure the level or extent of privacy concerns and not for the purpose of classification. Furthermore, a major problem with some of the above-mentioned scales is that they are often very lengthy.

Several non-academic sources have also reported on consumer privacy, such as the Privacy Segmentation Index (PSI) created in 1995 by Harris Interactive. The PSI classification has also been used in academic research, such as in the work of Kumaraguru and Cranor (2005), and in the studies of Dolnicar and Jordaan (2007). The PSI categorizes individuals with very high levels of apprehension for privacy as 'Privacy Fundamentalists' as they are very concerned about privacy matters. The second group is labeled 'Privacy Pragmatists', who feel it is very important to protect themselves from the misuse of their personal information. The 'Privacy Unconcerned' is the third group and, as the name suggests, this segment is not overly concerned about privacy. The fact that the PSI is a concise instrument developed and used as a classification tool instead of measuring only the level of concern makes it ideal to be used in a clustering study.

Numerous research studies have found consistently high levels of concern on the issue of privacy (Ackerman, Cranor and Reagle, 1999; Westin, 2002; Wiese, Lauer, Pantazis and Samuels, 2014). As previous research has already established that SNS users are apprehensive about their privacy, it is not the aim of this study to determine privacy concerns. The focus is rather on classifying Facebook users into clusters using the PSI, on the basis of their privacy concerns.

Research by Taylor et al. (2011:263) suggests that when online users link their privacy concerns with watching advertisements on SNS, they are more likely to have a negative inclination towards accepting these advertisements. Subsequently, users tend to be sensitive about unsolicited messages received from unknown parties. Building trust online is proposed as a solution to consumers' privacy concerns.

Trust in information sources

Chu (2011:30) reports that consumers are increasingly turning to SNSs, such as Facebook, as trusted sources of information and opinions. Facebook users can receive information on their Facebook walls or timelines via shared links, postings recommendations, or advertisements, to name but a few. These sources could be personal in nature, such as connections, friends or family members, or impersonal or foreign sources, such as companies, brands or community moderators (Vinerean et al., 2013:69). Trust in social media platforms, such as Facebook, can thus be viewed from different perspectives: trust in Facebook; trust in the brands advertising on Facebook; and trust in other Facebook members. Trust in SNS advertisers can be described as the belief that the advertiser 'would not behave opportunistically by taking advantage of the situation' (Gefen, Karahanna and Straub, 2003).

The rights of Facebook users who share their personal information in exchange for pertinent advertising services have to be respected by the recipients of such information (Okazaki, Li and Hirose, 2009). On the grounds that social network environments are social, but private spaces, many users prefer trusted agencies in this environment (Vatanparast and Asil, 2007).

Pavlou and Fygenson (2006) identified trust as an antecedent to engage in risky transactions when using technology, such as buying products in an online environment. Trust thus drives virtual interaction and transactions on the Internet (Chen, Chien, Wu and Tsai, 2010), which often involves high levels of uncertainty and the lack of legal protection. Although privacy and trust when using the platform have

become issues of concern, the emotional and social benefits people receive from being part of the Facebook community has led to it (and other SNSs) being very popular. Thus SNSs have become an integral part of members' daily lives.

The integration of social media in daily life

Social media have become an everyday phenomenon and have wound their way into the daily routines of their users. Social media are being increasingly integrated into the lives of users, who are satisfying personal and social needs via social media (Kaplan, 2012; Raacke and Bonds-Raacke, 2008:173). Wu et al. (2013:257) agree that social media are integrated into users' personal as well as their professional lives. Owing to the prevalence of social media use today, and the popularity of SNS, it is expected that active users may develop psychosocial connections to the SNS they use.

The incorporation of social media into users' lives is considered to have both emotional and social benefits, therefore measuring the use of social media as an integral part of users' lives has become important. Jenkins-Guarnieri, Wright and Johnson (2013a:48) state that it is more useful to measure how users integrate social media into their social routines and their level of emotional connection to social media, than just focusing on the frequency of use. In order to measure the intensity of Facebook use, Ellison et al. (2007:1150) developed the Facebook Use Intensity Scale to determine Facebook usage beyond mere frequency measures. This scale (or variations thereof) has been used in several studies on Facebook use, but was criticized by Jenkins-Guarnieri et al. (2013a:39) for a lack of psychometric evidence supporting the validity of the scale.

In an attempt to develop a methodologically rigorous measurement, Jenkins-Guarnieri et al. (2013a) created a Social Media Use Integration Scale (SMUIS), partly based on the Facebook Intensity Scale. The SMUIS was developed to measure the integration of social media use and it demonstrated both convergent and discriminant validity (Jenkins-Guarnieri et al., 2013a:40). The SMUIS measures two dimensions of social media use integration, namely, Social Integration and Emotional Connection (SIEC), and Integration into Social Routines (ISR). It is designed to measure '...engaged Facebook use, emotional connection to this use, and the extent to which users have integrated this social media into their daily social routines and behaviors' (Jenkins-Guarnieri et al., 2013b:121). Customer engagement will be discussed next.

Customer engagement on social media

Brodie, Hollebeek, Jurić and Ilić, (2011:255) noted that the concepts consumer engagement and customer engagement only recently appeared in academic marketing – and in particular in the service marketing literature. However, the term engagement has been studied in a number of other disciplines. A number of authors have defined the concept of customer engagement (Hollebeek, 2011; Mollen and Wilson, 2010; Patterson, Yu and de Ruyter, 2006; Vivek, Beatty and Morgan, 2012), drawing from the fields of the social sciences, management and business practice. However, they all acknowledge that cognitive, emotional and behavioral dimensions do exist (Brodie et al., 2011:255).

Customer engagement has been conceptualized in several ways, such as in terms of the 'presence' customers have in their relationship with an organization (Patterson et al., 2006:3); as a psychological process to become a loyal customer (Bowden, 2009:65); as behavioral manifestations – specifically referring to a brand or a firm (van Doorn, Lemon, Mittal, Nass, Pick, Pirner and Verhoef., 2010:254); and as the psychological state due to the interactive, co-creative experiences the individual has with an object (such as a brand) that they relate to (Brodie et al., 2011:259). This study draws on the work of Cheung, Lee and Jin (2011:3) that developed and validated a measure for customer engagement in the

context of an online social network. The scale used in the Cheung et al. (2011:3) study confirmed three factors, namely: vigor, absorption and dedication. Consequently, this is similar to the scale validated by Schaufeli, Salanova, González-Romá and Bakker (2002:74), who operationalized the concept of engagement as a psychological state by specifically referring to the work-related mind-set.

So et al. (2012:1) noted that these SNS platforms allow firms the opportunity to engage with consumers 'beyond the service encounter' and 'beyond-purchase'. These types of interactions include the sharing of opinions, information and experiences amongst peers, as well as between companies and consumer and they form part of what van Doorn et al. (2010: 254) and Verhoef, Reinartz and Krafft (2010:249) refer to as the 'behavioral manifestation' of consumer engagement. A number of activities are used to engage customers on Facebook and are discussed next.

Facebook activities

Safko and Brake (2009) posit that the growth of social media is partly due to the functionalities, which allow users to easily create and spread a variety of content, such as words, images, photos, videos and audio. Lee, Jarvinen and Sutherland (2011:60) argue that social mediums such as Facebook act as a network and give not only consumers but also marketers access to important features such as the 'like button', fan pages, photos, 'live feeds', 'news feeds' and other users' profiles. These features provide organizations with opportunities to interact with users through their fan pages, post statuses, tagging people and pictures, blogs, gaming or even creating events. Lee et al. (2011) suggest using the extent to which users engage with the various activities as a way to group users into 'Maximizers', who are heavy users that like to create content by sending out messages and posting, while the 'Laggards' are light users and would rather only read posts instead of actively liking and commenting on them.

Vinerean et al. (2013:71-72) also used social media activities that users choose to engage in to segment users. The authors found that some users mainly engage in watching videos, TV shows, movies, and either listening to or downloading music on SNS and were termed 'Watchers and Listeners'. Users who were very vocal and engaging by regularly updating their profiles, tagging pictures and posting comments were named 'Networkers or Socializers'. 'Engagers', on the other hand spend time reading forums and reviews and often acted as opinion leaders as they also like to post comments and reviews about sites and products. Morrison, Cheong and McMillan (2013) identified segments of SNS users related to user generated content or activities as 'Lurkers', 'Posters' and 'Networkers'. These activities ranged from merely observing and reading posts to more actively creating content and actively commenting. To the same extent, Alarcòn-del-Amo, Lorenzo-Romero and Gómez-Borja (2011) also found that Facebook users engage in different activities that could be grouped as 'Novelists', engaging in only limited activities to communicate with friends, while 'Versatiles' perform a variety of activities and the 'Expert-communicators' performed the greatest variety of activities and are the most vocal as, for example, in commenting on adverts.

Peer influence via social media

The social aspect, also referred to as subjective norms, refers to a person's perception of social or peer pressure when engaging in a specific behavior (Ajzen, 1991:188). Previous research has shown that attitude and behavior are influenced by social norms (Bauer, Barnes, Reichardt and Neumann, 2005). SNSs, such as Facebook, may be used to enhance new relationships, or to maintain and enrich existing ones (Peters, Amato and Hollenbeck, 2007). Active media, such as Facebook, are thus more likely to promote interpersonal relationships and this was the reason for the development of Facebook. Facebook users' sharing of information with others expedites activities and conversations, which allow users

(individuals and groups) to connect. Such sharing of information can initiate memorable communication exchanges (Taylor et al., 2011).

Attitudes and behavior towards Facebook advertising

Advertisers are attracted to the information posted willingly by users, which has created a social network environment rich in data. This allows advertising to tailor its content specifically to such individuals (Hoy and Milne, 2010). Social networking sites (SNS) also allow marketers to reach more people – because instead of telling just a few friends about their favorite brands, consumers now have the ability to tell hundreds or thousands of other people (Mangold and Faulds, 2009:359). Attitudes are generally shaped by people's beliefs and they have the potential to influence people's exposure, attention and reaction to objects or ideas (Kotler, 2002; Wang and Sun, 2010b:89). Consequently, marketers need to understand consumers' attitudes toward online advertising, in order to make use of online platforms more effectively. The attitudes toward advertising are important to track because of the likelihood that they may impact consumers' exposure and reactions to individual advertisements through a variety of cognitive and effective processes (Schlosser, Shavitt and Kanfer, 1999:35). Advertising effectiveness is also frequently determined by consumers' beliefs and attitudes toward advertising (Mehta, 2000).

Users' behavior regarding SNS advertising can take three forms: privacy-related (e.g. changing the privacy settings on the platform) advertising-related (e.g. viewing the advertisement, or not, passing the advertisement on to friends, or not, or even ad-blocking) and company-related (e.g. purchasing, positive or negative word-of-mouth, loyalty). For the focus of this study, reported behavior will be investigated in terms of advertising, as well as accessing a firm's website or shopping online.

The behavioral reaction toward advertising within an online context is usually determined by clicking on an advertisement (Wang and Sun, 2010a:335), or shopping. 'Actual purchases made' or 'shopping' are often measured in traditional advertising research to indicate the effectiveness of advertising, and is also applicable to the online context. Stevenson, Bruner, and Kumar (2000) found that a negative attitude toward online advertising was associated with lower levels of purchase intention. The number of times that a banner ad is clicked on is also referred to as 'ad-clicking' or 'click-through', which can also be used as a measure of online advertising effectiveness (Drèze and Zufryden, 1997). Research suggests that most people are hesitant to purchase online or they may even have left the electronic market because of a lack of trust and concerns about their privacy (Becerra and Korgaonkar, 2011; Lohse and Spiller, 1998).

From the literature discussion it is evident that each of the constructs included in this study provides insight into specific aspects pertaining to Facebook activities and behavior. Facebook is integrated into people's lives and due to the psycho-social connections, issues of privacy and trust arise. Users wield influence over one another and this can impact on their behavior, also with regard to engagement with brands and advertisements posted on Facebook. These aspects will be used as clustering variables to address the research question: Can multi-item constructs assist in determining segments of Generation Y Facebook users?

To address the research question and primary objective of this study, the next section discusses the research method followed.

RESEARCH METHOD

Research Objective

The primary objective of the study is to cluster young South African Generation Y Facebook users on the basis of their behavior on Facebook.

Data Collection and Sampling

Data was collected using a survey of undergraduate university students in the faculty of Economic and Management Sciences. Wiese and Du Plessis (2014:22) reported in their South African study that 85% of students have access to smartphones, 83% have their own laptops, while 76% have access to university computers and 41 % had access to an iPad—making this a very connected group. Furthermore, only 3% of students in their study perceived themselves to be 'novices' with regard to technology. Undergraduate students' access to devices to connect to social media, their technological capabilities in using these platforms, and age cohort make them an appropriate sample of Generation Yers. It can be assumed that the sample is well versed in the English language as English is one of the two main languages used for instruction at the university. The sample consisted of 383 third-year students, featuring 64% female and 36% male respondents. All are active members of Facebook. The age profile reflects a typical younger Generation Y cohort; with 62% aged between 18 and 21, and 38% aged 21 to 33. Additionally, Facebook is popular among this cohort. According to Mybroadband (2014), around 51% of South African Facebook users fall into these age categories. Respondents were approached on the basis of convenience via a campus-intercept and they were requested to complete a self-administered questionnaire after informed consent had been obtained. A screening question was used to ensure that the respondents log into Facebook at least once a month.

Research Instrument and Measures

The research instrument consisted of a structured, self-administered questionnaire featuring several multiple-choice and Likert-type scale-format questions to measure each of the constructs discussed in the literature section. A total of 17 questions were included and consisted of general usage patterns of Facebook users, such as average log-in patterns, length of use, time per session and number of friends, as well as the demographic details. The questionnaire was pre-tested using 20 respondents from Generation Y and no adjustments were needed. Furthermore no incentives were given for participation.

Unless stated otherwise, Likert-type scales were measured on a five-point basis ranging from 1-Strongly disagree, 2- Disagree, 3- Neutral, 4- Agree and 5 Strongly agree. Table 1 presents the measures and their Cronbach alpha scores that indicate reliability (where applicable). Scales were considered reliable with a Cronbach alpha value of 0.7 or higher (Pallant, 2013:101).

Dimension	Scale details	Cronbach's Alpha
Activities on Facebook	19-item measure adapted from Vinerean et al. (2013:69). Five-point scale ranging from 1-Never to 5-Always. Some of the activities included 'Posting of reviews', 'Posting of rating', 'Adding comments to various posts', 'Adding comments to other people's Facebook profile' and 'Uploading videos'.	0.899
Social Media Integration	10-item scale by Jenkins-Guarnieri et al. (2013a). Dimensions: Social	0.821

Dimension	mension Scale details	
(SMUIS)	Integration and Emotional Connection (SIEC) (six items e.g. 'I feel disconnected from friends when I have not logged into Facebook.') and Integration into Social Routines (ISR) (four items e.g. 'I respond to content that others share using Facebook.')	
Privacy concerns	Three-item PSI measure by Westin (2002) adapted to the Facebook context for example, consumers have lost control over how personal information is collected and used by Facebook and Facebook handles the personal information they collect about consumers in a proper and confidential way.	Not applicable as construct used for classification of privacy- sensitive segments
Trust sources	Five-item scale by Vinerean et al. (2013) ranging from 1-Very low trust levels, to 5-Very high trust levels with regard to friends and connections, family, group administrators, brand pages and companies' pages.	0.753
Peer influence	Six-item scale by Taylor et al. (2011) including items such as: 'Participating in a SNS is socially desirable' and 'I recommend participating in a SNS to others'.	0.905
Engagement	18-item scale by Cheung et al. (2011). Dimensions: vigor (6 items e.g. I feel strong and vigorous when I am using Facebook), dedication (6 items e.g. 'I found Facebook full of meaning and purpose.') and absorption (6 items e.g. 'I can continue using Facebook for very long periods at a time.').	0.932
Attitudes toward ads	tudes toward ads Four-item scale by Wollin, Korgaonkar and Lund (2002) including 'Overall, I consider advertising on Facebook a good thing', 'Overall, I like advertising on Facebook' and 'I would describe my overall attitude toward advertising on Facebook very favorably'.	
Behavior toward ads	Four-item scale including items such as: 'When I see an advertisement on Facebook, I pay close attention to it', 'When I see an advertisement on Facebook, I click on the advertisement' and 'When I see an advertisement on Facebook, I ignore it' adapted from Wollin et al. (2002).	
Actions taken based on advertisements	Options: accessing a site or shopping; 1-often, 2-a few times and 3-never	Not applicable
Overall importance of Facebook for social life	Single-item measure by Vinerean et al. (2013). 1-very important to 5-not important at all	Not applicable

Table 1. Measures and Cronbach alpha scores

Factor analyses were conducted on the main constructs. A two-step cluster analysis was conducted to isolate the clusters and to describe each of the clusters, including all the concepts noted earlier. MANOVA testing was used to measure any significant differences between the clusters.

RESULTS

This section discusses the analyses conducted in the study by reporting the results by, firstly starting with the explanation of the various EFA analyses conducted for this study. Next, cluster analysis is discussed and presented in order to explain the analysis. This section ends with the discussion of the results.

Exploratory Factor Analyses

The multi-item constructs (SMUIS, Trust, Customer engagement, Activities participated) were all subjected to an exploratory factor analysis (EFA). To determine the suitability of the data for factor analysis, the Bartlett's test of sphericity (significant at 0.5 or smaller) and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (exceeding 0.6) were used as indicators of suitability (Pallant, 2013:199). All the constructs revealed statistically significant values for Bartlett's test of sphericity; and the KMO values exceeded 0.6 (SMUIS: 0.893; Trust: 0.667; Engagement: 0.93 and Activities 0.853). Maximum Likelihood with Promax rotation was utilized. Factors that reported Eigenvalues of 1 or more were retained. A cut-off of 0.3 for factor loadings was used and items that double loaded were handled by considering the scores and the theoretical backing.

Construct	Factors	Cronbach Alpha	% of variance explained
Social media use integration	SIEC	0.874	50.59%
	ISR	0.766	10.92%
Trust in information	Trust personal sources	0.691	51.73 %
	Trust foreign sources	0.860	27.69 %
Customer engagement	Absorption	0.880	47.84 %,
	Dedication	0.776	7.63%
	Vigor	0.893	6.35%
Activities performed	Reading	0.883	34.36 %
	Contributing	0.829	10.65%
	Loading	0.759	7.10%
	Adding	0.697	5.84%
	Networking	0.733	5.51%

Table 2 provides the results of the EFAs.

 Table 2. Summary of EFA results

Table 2 shows that for *social media use integration*, two factors explained a total of 61.52% of the variance. These two factors correspond to those identified by Jenkins-Guarnieri et al. (2013a:43), namely SIEC (social integration and emotional connection) and ISR (integration into social routines).

For *Trust in information*, two factors explained 79.42% of the variance. 'Trust personal sources,' refers to trust in friends, connections and family; while 'Trust foreign sources' refers to trust in group administrators, brands' pages and companies' pages on Facebook.

Customer engagement revealed three factors explaining 61.47% of the variance. 'Absorption' refers to the cognitive dimension of customer engagement, 'Dedication' refers to the emotional dimension, and 'Vigor' refers to the physical dimension. These findings are aligned with those of Cheung et al. (2011:3), which also resulted in the same three factors.

The EFA for *Activities performed* extracted five factors that cumulatively explain 63.48% of the variance. Three items did not meet the 0.3 cut-off point, namely, 'voting on various pages', 'reading blogs', 'using newsfeed service', and another item, 'watching videos', was deleted from factor 4 to improve reliability. 'Reading', refers to activities that are based on the reading of features on Facebook, such as ratings, reviews and forums or groups, while 'Posting', refers to the actual posting relating to such features. 'Loading' represents uploading and downloading of multimedia content (for example, music). 'Adding,' refers to commenting on and tagging actions, while 'Sharing' refers to updating and sharing activities. The labels primarily describe the type of activity in which the respondent participated. Although the factor structure is similar to that of the study of Vinerean et al. (2013:69), some of the items loaded on different factors; therefore it was decided to alter some of the labels for this study.

A cluster analysis was conducted to address the primary objective of the study and the next section discusses the findings of the cluster analysis. This analysis was used to describe Generation Y Facebook users in terms of the constructs discussed earlier.

Cluster Analysis

Cluster analysis is well suited to this research for several reasons. First, it is an exploratory multivariate statistical procedure that creates a classification by forming groups. Second, it is commonly utilized for exploratory data analysis and, thirdly, cluster analysis is useful as a method of discovery as it solves classification issues. This method further uncovers associations between various data objects and, lastly, assists in outlining structures which may not have been clear previously, which provides much meaning and sense to the data (Aldenderfer and Blashfield, 1984; Madhulatha, 2012; Romesburg, 2004).

The various concepts regarding Facebook were analyzed to form clusters using SPSS version 22 and, specifically, a Two-Step Cluster method. This method was used because, compared to other classical clustering methods, the Two-Step Cluster method allows for a combination of data types (both continuous and categorical variables) and it also finds the optimal number of clusters.

In the *pre-clustering step*, the data records are scanned and clustered based on Log-likelihood distance criterion as this criterion can be used for both continuous and categorical variables. The database for this study contained five categorical variables and sixteen continuous variables.

Guidelines for selecting the optimal number of clusters were based on the number of clusters that resulted in the best combination of (a) low (but not necessarily the lowest) Bayesian Information Criterion (BIC), (b) high ratio of distance measures, (c) high ratio of BIC changes, and (d) potentially meaningful explanation. As a disadvantage it should be noted that the Two-Step Clustering method does not allow for missing values and those items that have missing values are, therefore, not considered for analysis. A total of 60 responses were excluded due to missing data, resulting in an analysis being performed on 323 cases.

The *Auto-Clustering* statistics table can be used to assess the optimal number of clusters, as shown in Table 3.

Number of	Bayesian Information	Ratio of BIC Changes	Ratio of Distance Measures
Clusters	Criterion (BIC)		
1	6080.825		
2	5783.002	1.000	1.403
3	5645.355	0.462	1.491
4	5638.694	0.022	1.351

Table 3. Auto-Clustering

In Table 3, the lowest BIC coefficient is for four clusters, the largest ratio of BIC change is for two clusters; while the largest ratio of distances is for three clusters. Thus, using the rules as specified and discussed earlier, a three-cluster solution seemed optimal.

Multivariate analysis of variance (MANOVA) testing was used to assess the differences among the three clusters. The continuous variables, collectively rather than individually, were used to avoid the risk of an inflated Type-I error by conducting a whole series of analysis using univariate tests. There was a statistically significant difference in the three clusters on the combined dependent variables, F (30,614) = 20.87, p = 0.00; Wilk's lambda = 0.24; partial eta squared = 0.50. The results for the dependent variables all showed statistical significance. Scheffé *post hoc* tests were conducted to reveal the clusters that differed from one another.

The cluster distribution and the descriptive, categorical and continues variables for each cluster, as well as the Scheffé *post hoc* results, are shown in Table 4.

	CLUSTERS		
	Engaged Elite	Neutral Masses	Facebook Floaters
Descriptive variables	L		
Size of each cluster	15.5%(50)	51.1%(165)	33.4%(108)
Gender	1	ı	ı
Male	26%	35%	38%
Female	74%	65%	62%
Log-in time per session	1	L	L
Less than 5 minutes	6%	18%	26%
5-15 minutes	42%	62%	54%
16-29 minutes	34%	15%	13%
30-60 minutes	14%	4%	6%
More than 60 minutes	4%	1%	1%

		CLUSTERS		
	Engaged Elite	Neutral Masses	Facebook Floaters	
Descriptive variables				
Size of each cluster	15.5%(50)	51.1%(165)	33.4%(108)	
Gender				
Male	26%	35%	38%	
Categorical variables				
Number of years using Facebook				
New users (less than a year)	0	0	6%	
Medium-term users (1-3 years)	16%	2%	20%	
Experienced users (4+ years)	84%	98%	74%	
Average log-in pattern	н 			
Frequent (several times a day)	70%	54%	15%	
Medium (once a day, or a few times a week)	26%	43%	61%	
Low (a few times a month or less)	4%	3%	24%	
Number of Facebook friends				
Fewer than 150	4%	5%	24%	
150-500	62%	33%	65%	
More than 500	34%	62%	11%	
Privacy cluster (N)				
Fundamentalist	0%	10%	13%	
Pragmatist	70%	78%	74%	
Neutrals	8%	8%	12%	
Unconcerned	22%	4%	1%	
Continuous variables (Means)				
Facebook activities				
Sharing	3.87ª	2.82ª	2.18 ^a	
Loading	2.31 ^{ab}	1.55ª	1.40 ^b	
Posting	2.68ª	1.77ª	1.38 ^a	
Reading	3.04ª	2.00ª	1.65ª	
Adding	3.81ª	3.28ª	2.52ª	
Social Media Use Integration (SMUIS)	I			
SMUIS_1 SIEC	3.59ª	2.58ª	1.75ª	
SMUIS_2 ISR	4.21ª	3.71ª	2.73ª	
Engagement				

		CLUSTERS		
	Engaged Elite	Neutral Masses	Facebook Floaters	
Descriptive variables				
Size of each cluster	15.5%(50)	51.1%(165)	33.4%(108)	
Gender				
Male	26%	35%	38%	
Vigor	3.19 ^a	2.61 ^a	2.04 ^a	
Dedication	3.54ª	2.73ª	1.93 ^a	
Absorption	3.24ª	2.53ª	1.80 ^a	
Behavior toward Facebook advertisements	3.14 ^a	2.67ª	2.34ª	
Attitude toward FB advertisements	3.49ª	3.05 ^a	2.59 ^a	
Social influence/word-of-mouth	4.05ª	3.41ª	2.69ª	
Trust				
Friends	4.12ª	4.01 ^b	3.50 ^{ab}	
Foreign	3.14ª	2.76ª	2.28ª	
Importance of FB for social life	2.10 ^a	2.94ª	3.81ª	
Shopping action based on advertisements	2.36 ^{ab}	2.72ª	2.81 ^b	
Table 4 Chaster Distribution Deser		<u> </u>	I	

Table 4. Cluster Distribution Description and Scheffé post hoc Results.

*The results of the Scheffé *post hoc* tests are indicated with a and/or b. All mean values containing the same letters (for example, a, indicate that the groups differ significantly from one another). All mean values containing different letters (for example, a or b) indicate that these groups do not differ significantly from one another.

DISCUSSION

From the results of the EFAs, cluster analyses and MANOVA testing shown in Table 4, several observations are evident.

A number of aspects are common across the three clusters. All the clusters feature more females than males; this could be due to the gender distribution of the sample, which is skewed toward females. The majority of the consumers within each cluster use Facebook between five and 15 minutes per session; and the clusters feature a majority of experienced users, indicating that they have been using Facebook for four or more years. The majority of members in each cluster may be classified as Pragmatic, in terms of their privacy profile. As noted earlier, these individuals feel the need to protect themselves from personal information misuse, but they allow others to access and make use of their personal information if they feel they understand others' reasons for using such information. Furthermore, all of the clusters show trust in friends. Aside from the similarities, there are also pertinent differences among the clusters, as indicated in the results of the MANOVA. A further discussion on each of the three clusters will follow, elaborating on the findings of each and the insights shared by each of these clusters. Of particular interest is Cluster 1.

Cluster 1 (the Engaged Elite) represents 15.5% of the total sample and, overall, this cluster seems to find Facebook important in their lives (M=2.10). Although all the clusters feature more females than males, this cluster features the largest ratio of females to males of all the clusters (74% versus 26%). More than half (52%) of the Engaged Elite use Facebook for more than 15 minutes per day. This cluster thus reflects the most prolific daily Facebook use of all. This is supported by the frequent log-in patterns of the majority of the cluster (70%). They are also identified as experienced (4+ years) users of Facebook. The majority of the Engaged Elite report having 150 to 500 Facebook friends. In summary, this is the most involved of the three clusters: they rate more highly on social media in their use integration, engagement, behavior and attitudes toward advertising on Facebook, as well as the propensity to take action on the basis of advertisements.

This cluster has the highest means for activities in which they participate on Facebook. Users' actions can be classified primarily as sharing (M=3.87), adding (M=3.81), and reading (M=3.04). The Engaged Elite cluster's SMUIS presents the highest means scores amongst the three clusters in terms of both SIEC (M=3.59) and ISR (M=4.21). The former indicates that the cluster participates in relatively high levels of Facebook usage integration and that these users are emotionally connected to the platform. The high ISR represents a very high level of Facebook integration with the cluster's social routines.

This cluster is the only one that resulted in neutral to some degree of engagement with Facebook, albeit not to a high degree. In referring to the discussion of customer engagement, active users might not view their own Facebook engagement to be of relevance. However, when referring to the factors found for customer engagement, dedication, which reflects the emotional dimension, seems to be most prominent (M=3.54) in this cluster. Although this cluster is the only one of the three that shows positive behavior regarding advertisements on Facebook (M=3.14), this score is closer to neutral. The attitudes toward advertising on Facebook also resulted in the most positive cluster amongst the three; although this cluster indicates only a slight positive score (M=3.49). This may explain why, although these users seldom take action based on advertisements on Facebook, they are more inclined toward action than the other clusters. The Engaged Elite show the highest social influence or word-of-mouth (M=4.05) of the three clusters a slight leaning towards trust in foreign sources. The aforementioned may be due to their relatively high levels of social influence or word-of-mouth.

Cluster 2 (the Neutral Masses) represents 51.1% of the sample and is the largest cluster. This cluster indicates a rather indifferent view of the importance of Facebook in their lives (M=2.94) and they are unlikely to take action on advertisements. Although the average usage of Facebook per session is moderate (cumulatively, 80% use the platform for 15 minutes or less), a small majority of the cluster display frequent (54%) log-in patterns. This cluster primarily reports having in excess of 500 Facebook friends – more than the other two clusters. Despite their large number of friends, this seems to be an overall indifferent cluster in terms of participation in Facebook activities; social media use integration, engagement, behavior and attitudes toward advertising.

This cluster features those users whose actions mainly indicate adding, and their social media use integration is prominent only in terms of ISR (M=3.71). This indicates that this cluster integrates Facebook to a high degree in their daily lives. The Neutral Masses cluster shows little involvement in terms of engagement and behavior toward advertising on Facebook. This cluster's attitude toward advertising on Facebook is neutral (M=3.05); their social influence or word-of-mouth is slightly positive. The Neutral Masses' results showed a higher level of trust in friends (M=4.01), which is lower than the Engaged Elite and higher than that of Cluster 3 (the Facebook Floaters). The Neutral Masses indicated very low levels of trust in foreign sources (M=2.76).

Cluster 3 (the Facebook Floaters) represents 33.4% of the sample; they seem to be the least active on Facebook in terms of the activities in which they participate. This is the only cluster where the majority can be classified as medium users (61%), on the basis of their log-in patterns. Similar to the Engaged Elite, the majority of this cluster has 150 to 500 Facebook friends.

The results indicate that this cluster users' activities primarily refer to 'adding', although the mean indicates that they rarely participate in such activities (M=2.52). The SMUIS for this cluster is low (SIEC M=1.75; ISR M=2.73) - much lower than for the other two clusters.

The Facebook Floaters cluster shows low levels of engagement overall – much lower than those of the Engaged Elite and the Neutral Masses. The mean for behavior toward advertisements on Facebook is low (M=2.34) and this is the only cluster that tends to reflect slightly negative attitudes (M=2.59) toward advertisements. The social influence or word-of-mouth (M=2.69) is much lower than those of the other two clusters. The Facebook Floaters show some trust in friends (M=3.50) – however, this is the lowest of the three clusters; they also reflect the lowest in trust in foreign sources (M=2.28). This cluster indicates the most indifferent view of the importance of Facebook in their lives (M=3.81) and these individuals are the least likely of the clusters (M=2.81) to take action on advertisements displayed in Facebook. Like the Neutral Masses, the average usage of Facebook per session is moderate.

Turning attention to the research question posed in this study (can multi-item constructs assist in determining segments of active Facebook users and thus contribute to the understanding Facebook behavior?) it is evident from the findings that these constructs do in fact assist in determining particular segments on Facebook. Of particular interest is that the smallest cluster (Engaged Elite) provided interesting insights into understanding the behavior of active and engaged Facebook users. Therefore, to answer the objective stated in this study: each of the three clusters discussed provided detail regarding South African Generation Y Facebook users on the basis of their behavior on Facebook.

IMPLICATIONS FOR MANAGERS

This research provides insights into a fairly large, active market's behavior and perceptions on Facebook and its related activities, by providing a holistic view of young adult Facebook users' Facebook behavior. Therefore, it provides input to a possible segmentation approach, clustering, to better understand and engage with young Generation Y Facebook users. Additionally, this was the first study of its kind to include a social media use integration scale (SMUIS) into a cluster project, and possibly also the first of its kind in the South African market.

The most prominent insight refers to the Engaged Elite, which, although it is the smallest group, seems to be most involved in terms of customer engagement, as well as the activities in which they actively participate. The Engaged Elite also revealed the highest levels of social media use integration. Although this group seems to be engaged and Facebook is integrated into their lives, it seems as though they do not regard Facebook as very important for their social life—which is a contradictory finding. Reflecting on the results, this may be explained when considering the results of the SMUIS, where this cluster indicated a high integration of social routine; therefore it is seen more as a routine than social aspect in their lives. The results for this cluster suggest a viable niche segment worthy of further exploration, specifically in terms of their willingness to "spread the word." The Engaged Elite seem to be the ideal cluster to target as they have a large reach and high willingness to share information. It is recommended that this cluster be targeted with shareablecontent as their results illustrated a high agreement with this particular activity, and in engaging with the content. They should be encouraged to share such content in

their circles. Marketers may also consider involving this cluster in creating content, thereby further stimulating their propensity for word-of-mouth.

The Neutral Masses comprised the biggest (51.1%) cluster; as just over half of the respondents fell within this cluster. The size of this cluster matters since it could be considered a fair representation of a larger segment of active Facebook users and, therefore, the insights regarding this cluster in terms of all the concepts included,— is of value here. Although the results indicated that the Neutral Masses cluster is not very active on Facebook, nor that they use it for long periods at a time, individuals in the Neutral Masses regularly log in. This type of member is often classified as 'Lurkers' as they visit the community but rarely post a message (Preece, Nonnecke and Andrews, 2004). Furthermore, these individuals indicated the largest number of friends on Facebook compared to the other two clusters. This symbolizes a potentially large sphere of possible peer influence. That said, the Neutral Masses cluster reported social influence or word-of-mouth as only marginally positive, indicating that they are not very likely to engage in word-of-mouth and are thus not the most suitable targets for stimulating conversations. However, it is important to note that Ridings, Gefen and Arinze (2006) posit that although 'Lurkers' do not contribute to producing content, they are often affected by it. This is supported by their indifference to the importance of Facebook in their lives, as well as their low levels of action, based on advertisements.

This particular group could be targeted with regular advertisements and content regarding particular brands as they are a captive and active audience in terms of usage. For marketers considering a mass approach, the Neutral Masses would be a possible target segment, due to their large size. However, it should be noted that as their sharing propensity is relatively low, they are not the most viable for the purpose of stimulating word-of-mouth. The development of content targeted at the Neutral Masses should be creative and attractive in order to pull these individuals in to take action, as the likelihood of them taking action of their own volition seems to be low.

The last cluster, the Facebook Floaters, is the one that is the least involved in terms of all concepts measured. A critical insight into this cluster is the fact that this is the only cluster that displayed negative attitudes toward advertisements, which may be exacerbated by their lack of engagement and indifference to Facebook. This is an important insight as the ideal would be to change the fairly negative attitude to a more neutral or ideally positive attitude, however, from prior knowledge, it is known that changing attitudes can be challenging. This is seemingly not a very viable segment on which to focus marketing efforts, for the afore-mentioned reasons. There is, however, a possibility that this cluster may be influenced by the other two clusters. This is supported by the results of the trust that the Facebook Floaters indicated towards their friends—it seems to also be fairly high and therefore, this could be a potential area to explore in greater detail.

Although this cluster comprises an experienced group of users, they only display medium log-in behavior and therefore, Facebook might act more as a 'reinforcing' tool for messages rather than a main media source to attract attention and generate engagement.

Across the three clusters, the behavior and attitude toward advertisements on Facebook seems to be fairly neutral (leaning toward negative), thereby illustrating that although the platform is used regularly, it might not be the most appropriate platform to 'sell' a message or a product. This might also be because this feature is not yet that well developed on Facebook and it would be interesting to explore further—once this functionality has become more popular. It seems as if a more subtle method of communication instead of banner ads or targeted ads could be more effective. Adding activities seems to be the action in which most users participate on Facebook. Additionally, across all three clusters,

Facebook seems to be an important part of the respondents' daily lives and the users have a great deal of experience, due to their use of the platform for a number of years. These factors indicate that Facebook remains a feasible channel to initiate and engage in a number of marketing activities. Such marketing activities should be strategically planned, based on the distinct characteristics of the three user clusters, in order to gain the most advantage from marketing content shared on the platform. Marketing content should be integrated and creative; as the aim should be to engage the users, to build dedication and to facilitate sharing by users across their networks.

Kumar (2015:4-5) supports this notion by stating that creating viral content and consumer engagement efforts have been (and should continue to be) a focus in marketing. He further noted that in an attempt to add value, it is not only important to identify, understand, and manage purchase behavior, but also the best attitudes for engagement efforts. Therefore, encouraging customers to buy more intensively over time, encouraging customers to refer others to buy, and talking to other customers to influence them to transact with the firm, as well as to provide feedback to the firm, is critical since it creates a heightened state of customer engagement. This type of engagement could positively influence organizational performance.

Although several tools exist on Facebook to target specific audiences based particularly on their demographic variables and, to some extent, on-line behavior there is a need for a deeper and more holistic understanding of Facebook users and how best to utilize this platform from a marketing perspective. These tools focus on the practitioners' activities to share information and messages. However, the need for a deeper understanding of the increasing complexities of marketing via social media channels as evident in legislation such as POPI, 'banner blindness,' availability of ad-blockers, privacy concerns and a large segment of Facebook 'lurkers' exist and should be addressed through academic research. This type of research may result in more effective marketing solutions for such problems. This study focused on such an approach to provide insights so as to assist practitioners in developing their social media strategies in such a way as to address some of these problems.

LIMITATIONS AND FUTURE DIRECTIONS

Owing to the non-probability sampling approach used, it is not possible to make generalizations about the population and future research should consider using probability sampling. The sample included quite a large number of females, which could possibly impact on the results. Expanding this research to include a broader age group within Generation Y would enable the investigation of older generation users, which might well present a different cluster profile.

Future studies could also consider testing various models that include a variety of these concepts, as many of the concepts are theoretically linked. Modelling should enable researchers to investigate the relationships between the constructs, as well as the predictive value of the constructs in terms of behavior.

CONCLUDING REMARKS

Young adults, who are active on Facebook, are generally considered to wield strong peer influence and feature opinion leader behavior. This creates the expectation that clusters would reflect high levels of social media participation and word-of-mouth behavior. Stimulating word-of-mouth would be part of the objectives of advertising featured on social media as they are, by definition social and thus suitable for that purpose. The results of this study seem to indicate that contrary to this belief, all young adults are

not the active, highly engaged, conversation-creating Facebook fanatics that many people believe them to be. In fact, it seems that the majority, the Neutral Masses, display frequent log-in behavior but are more interested in activities pertaining to adding content rather than in active participation on Facebook.

Despite these challenges, from the results of this study there has emerged a viable niche market segment (the Engaged Elite) that seems worthy of closer strategic marketing investigation, and which may be targeted, specifically with engaging and conversation-worthy content. To enable effective targeting of such a cluster, further investigation into what this cluster finds engaging and 'shareable' needs to be conducted. This cluster also indicated a strong agreement with word-of-mouth tendencies, which could be of great value to a brand or a particular community.

Considering the popularity of Facebook and its large user base, one would expect it to present a rich field for sowing marketing seeds for redistribution via large circles of friends, and for stimulating conversations. This, however, seems to be refuted by the findings of this research. Perhaps the challenge for marketers lies not so much in having an advertising presence on Facebook, but rather the type of advertising (and other marketing) content created for this platform. It is possible that the current advertising does not feature content that is conversation-worthy or action-worthy, thus negating its 'share ability'. Current advertising efforts on the platform do not seem to contribute to the organic conversations that users are having, further diluting the effectiveness of the advertising to capture attention. For marketers, the challenge is to create content that has an omni-channel approach, uniquely curating content that is relevant and specific for the particular channel selected. Essentially, the message or content should be the same. However, it is how it is crafted, curated and then, importantly, seeded that will determine the success of such content. This study illustrated that it may be an elite group that may share such content but this might be very effective due to their commitment to word-of-mouth, coupled with the size of their personal network.

ACKNOWLEDGMENTS

The financial assistance of the National Research Foundation (NRF) toward this research is hereby acknowledged. Opinions expressed and conclusions arrived at, are those of the author(s) and are not necessarily to be attributed to the NRF.

REFERENCES

- Acar, A. and Polonsky, M. (2007) Online social networks and insights into marketing communications, *Journal of Internet Commerce*, 6, 4, 55-72.
- Ackerman, M.S., Cranor, L.F. and Reagle, J. (1999) Privacy in E-Commerce: Examining user scenarios and privacy preferences, *Proceedings of ACM Conference on Electronic Commerce*, November 3-5, Denver, CO, USA, ACM, 1–8. [Online] Available from http://doi.acm.org/10.1145/336992.336995.
- Ajzen, I. (1991) The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50, 179-211.
- Alarcón-del-Amo M.D., Lorenzo-Romero C. and Gómez/-Borja M.A. (2011) Classifying and profiling Social Networking Site users: a latent segmentation approach, *Cyberpsychology, Behavior and Social Networking*. 14, 9, 547-553.
- Aldenderfer, M.S. and Blashfield, R.K. (1984) Quantitative Applications in the Social Sciences Cluster Analysis, Sage Publications, Thousand Oaks.

- Bauer, H., Barnes S, Reichardt, T. and Neumann, M.M. (2005) Driving consumer acceptance of mobile marketing: A theoretical framework and empirical study, *Journal of Electronic Communication Research*, 6, 3, 181-192.
- Becerra, E.P. and Korgaonkar, P.K. (2011) Effects of trust beliefs on consumers' online intentions, *European Journal of Marketing*, 45, 6, 936-962.
- Bevan-Dye, A., Garnett, A. and de Klerk, N. (2012) Materialism, status consumption and consumer ethnocentrism amongst black generation Y students in South Africa, *African Journal of Business Management*, 6, 16, 5578-5586.
- Bhat, F. (2015) Ad blocking's unintended consequences. *Harvard Business Review*, August 12, 2015. [Online] Available from https://hbr.org/2015/08/ad-blockings-unintended-consequences.
- Bokhari, A. (2012) Interested in a social media career? Laurie Boettcher speaks! Interview, available from http://aatifbokhari.blogspot.co.za/2012/04/if-youre-interested-in-learning-more.html.
- Bolton, R.N., Parasuraman, A., Hoefnagels, A., Migchels, N., Kabadayi, S., Gruber, T., Komarova Loureiro, Y. and Solnet, D. (2013) Understanding Generation Y and their use of social media: A review and research agenda, *Journal of Service Management*, 24, 3, 245-267.
- Bowden, J.H. (2009) The process of customer engagement: A conceptual framework, *Journal of Marketing Theory and Practice*, 17, 63-74.
- Brengman, M., Geuens, M., Weijters, B., Smith, S.M. and Swinyard, W.R. (2005) Segmenting Internet shoppers based on their Web-usage-related lifestyle: A cross-cultural validation, *Journal of Business Research*, 58, 79-88.
- Brodie, R.J., Hollebeek, L.D., Jurić, B. and Ilić, A. (2011) Customer engagement: Conceptual domain, fundamental proposition, and implications for research, *Journal of Service Marketing*, 14, 3, 252-271.
- Campbell, D.A., Lambright, K.T. and Wells, C.J. (2014) Looking for friends, fans, and followers? Social media use in public and non-profit human services, *Public Administration Review*, 74, 5, 655-663.
- Canhoto, A.I., Clark, M., and Fennemore, P. (2013) Emerging segmentation practices in the age of the social customer, *Journal of Strategic Marketing*, 21, 5, 413-428.
- Castronovo, C. and Huang, L. (2012) Social media in an alternative marketing communication model. *Journal of Marketing Development and Competitiveness*, 6, 1, 117.
- Cerebra. (2014) The impact of POPI on social media. [Online] Available from http://www.cerebra.co.za/resources/impact-popi-social-media-south-africa/.
- Chen, Y-H., Chien, S-H., Wu, J-J. and Tsai, P-Y. (2010) Impact of signals and experience on trust and trusting behavior. *Cyberpsychology, Behavior and Social Networking*, 13, 5, 539-546.
- Cheung, C., Lee, M. and Jin, X. (2011) Customer engagement in an online social platform: A conceptual model and scale development, *Proceedings of the International Conference on Information Systems*, December 4-7, Shanghai, China, 8.
- Chou, A.Y. and Chou, D.C. (2009) Information system characteristics and social network software adoption. *Proceedings of the Southwest Decision Sciences Institute Conference*, March 9-12, Houston, TX, USA, 335-343. [Online] Available from http://www.swdsi.org/swdsi2009/Papers/9K02.pdf.
- Chu, S.C. (2011) Viral advertising in social media: Participation in Facebook groups and responses among college-aged users. *Journal of Interactive Advertising*, 12, 1, 30-43.
- Claveria, K. (2016) How to engage millennials for customer insight and marketing, [Online]: Available from https://www.visioncritical.com/how-engage-millennials-customer-insight-and-marketing/.
- Curran, K., Graham, S. and Temple, C. (2011) Advertising on Facebook. *International Journal of E-Business Development*, 1, 1, 26-33.
- Dinev, T. and Hart, P. (2004) Internet privacy concerns and their antecedents measurement validity and a regression model, *Behavior and Information Technology*, 23, 6, 413-422.
- Dolnicar, S. and Jordaan, Y. (2007) A market-oriented approach to responsibly managing information privacy concerns in direct marketing, *Journal of Advertising*, 3, 6, 123-149.

- Drèze, X. and Zufryden, F. (1997) Testing web site design and promotional content, *Journal of Advertising Research*, 37, 2, 77-91.
- Duffett, R.G. (2015) The influence of Facebook advertising on cognitive attitudes amid Generation Y, *Electronic Commerce Research*, 15, 243-267.
- Ellison, N. B., Steinfield, C. and Lampe, C. (2007) The benefits of Facebook 'friends'" Social capital and college students' use of online social network sites, *Journal of Computer-Mediated Communication*, 12, 4, 1143-1168.
- Gachago, D., Ivala, E., Backhouse, J., Bosman, J.P. and Bozalek, V. (2013) Towards a shared understanding of emerging technologies: Experiences in a collaborative research project in South Africa, *The African Journal of Information Systems*, 5, 3, 94-105.
- Gardyn, R. (2002) Educated consumers, American Demographics, 24, 10, 18-19.
- Gefen, D., Karahanna, E. and Straub, D.W. (2003) Trust and TAM in online shopping: An Integrated Model, *MIS Quarterly*, 27, 1, 51-59.
- Goldstuck, A. (2015) South African social media landscape report 2015, Fuseware and World WideWorx, Pinegowrie.
- Hollebeek, L.D. (2011) Exploring customer brand engagement: Definition and themes, *Journal of Strategic Marketing*, 19, 7, 555-573.
- Hoy, M.G. and Milne, G. (2010) Gender differences in privacy-related measures for young adult Facebook users, *Journal of Interactive Advertising*, 10, 2, 28-45.
- Jenkins-Guarnieri, M.A., Wright, S.L. and Johnson, B.D. (2013a) Development and validation of a social media use integration scale, *Psychology of Popular Media Culture*, 2, 1, 38.
- Jenkins-Guarnieri, M.A., Wright, S.L. and Johnson, B.D. (2013b) The interrelationships among attachment style, personality traits, interpersonal competency, and Facebook use, *Psychology of Popular Media Culture*, 2, 2, 117.
- Kamatchi, P. (2014) Impact of social media marketing on purchase decisions: an exploratory study, *International Journal of Logistics & Supply Chain Management Perspectives*, 2, 4, 664-667.
- Kaplan, A.M. (2012) If you love something, let it go mobile: Mobile marketing and mobile social media 4x4, *Business Horizons*, 55, 2, 129-139.
- Kennedy, L. (2001) The up & coming generation, Retail Merchandiser, 41, 8, 66.
- Kotler, P. (2002) Marketing Management, Millennium edition. Custom Edition for University of Phoenix. Pearson Custom Publishing, Boston, MA.
- Kumar, V. (2015) Evolution of Marketing as a discipline: What has happened and what to look out for, *Journal of Marketing*, 79, 1, 1-9.
- Kumaraguru, P. and Cranor, L.F. (2005) Privacy indices: A survey of Westin's studies. *Institute for Software Research*, *School of Computer Science, Carnegie Mellon University*.
- Lampe, C., Ellison, N. and Steinfield, C. (2006) A Face(book) in the Crowd: Social Searching vs Social Browsing. Proceedings of the 2006 20th anniversary conference on Computer-supported cooperative work, November 4-8, Banff, Alberta, Canada, ACM Press, 167-170.
- Lee, C., Jarvinen, V. and Sutherland, J. (2011) Profiling social network site users: Who is the most responsive to marketing attempts? *Proceedings of American Academy of Advertising*, April, Mesa, Arizona, 59-68.
- Lin, K.Y. and Lu, H.P. (2011) Why people use social networking sites: An empirical study integrating network externalities and motivation theory, *Computers in Human Behavior*, 27, 3, 1152-1161.
- Lohse, G.L. and Spiller, P. (1998) Electronic Shopping. Communications of the ACM, 41, 7, 81-87.
- Lorenzo-Romero, E., Constantinides, E. and Alarcón-del-Amo, M.C. (2012) Segmenting the social networking site users: An empirical study, *International Journal of Internet Marketing and Advertising*, 7, 2, 136-156.
- Madhulatha, T.S. (2012) An overview on clustering methods. IOSR Journal of Engineering, 2, 4, 719-725.

- Malhotra, N.K., Kim, S.S. and Agarwal, J. (2004) Internet users' information privacy concerns (IUIPC): The construct, the scale, and a causal Model, *Information Systems Research*, 15, 4, 336–355.
- Mangold, W.G. and Faulds, D.J. (2009) Social media: The new hybrid element of the promotion mix, *Business Horizons*, 52, 357-365.
- Matthews, C. (2015) 1 billion people used Facebook on Monday, *Fortune*, 28 August 2015. [Online]: Available at http://fortune.com/2015/08/28/1-billion-facebook/.
- McStay, A. (2011) The mood of information. A critique of online behavioral advertising, Continuum International Publishing Group, New York.
- Mehta, A. (2000) Advertising attitudes and advertising effectiveness, Journal of Advertising Research, 40, 3, 67-71.
- Mitchell, A.A. and Olson, J.C. (1981) Are product beliefs the only mediator of advertising effect on brand attitude? *Journal* of Marketing Research, 18, 319-332.
- Mollen, A. and Wilson, H. (2010) Engagement, telepresence, and interactivity in online consumer experience: Reconciling scholastic managerial perspectives, *Journal of Business Research*, 63, 9/10, 919-925.
- Morrison, M.A., Cheong, H.J. and McMillan, S.J. (2013) Posting, Lurking, and Networking: Behaviors and characteristics of consumers in the context of user-generated content, *Journal of Interactive Advertising*, 13, 2, 97-108.
- Morton, L.P. (2002) Targeting Generation Y, Public Relations Quarterly, 47, 2, 46-58.
- Mybroadband. (2014) South African Internet users: age, gender, and race. [Online] Available from http://mybroadband.co.za/news/internet/109396-south-african-internet-users-age-gender-and-race.html.
- Nadkarni, A. and Hofmann, S.G. (2012) Why do people use Facebook? *Personality and Individual Differences*, 52, 3, 243-249.
- Noble, S.M., Haytko, D.L. and Phillips, J. (2009) What drives college-age Generation Y consumers? *Journal of Business Research*, 62, 6, 617-628.
- Okazaki, S., Li, H. and Hirose, M. (2009) Consumer privacy concerns and preference for degree of regulatory control: A study of mobile advertising in Japan, *Journal of Advertising*, 38, 4, 63–77.
- Pallant J. (2013) SPSS survival manual, McGraw-Hill Education, Berkshire.
- Patterson, P., Yu, T. and de Ruyter, K. (2006) Understanding customer engagement in services: Advancing theory, attaining relevance, *Proceedings of ANZMAC Conference*, 4-6 December, Brisbane, Australia, 4-6.
- Pavlou, P.A. and Fygenson, M.N. (2006) Understanding and predicting electronic commerce adoption: An extension of the Theory of Planned Behavior, *MIS Quarterly*, 30, 1,115-143.
- Payton, C.P., Morais, D. and Heath, E. (2015) Multi-stakeholder assessment of a mobile and temporarily interconnected systems prototype: People-first tourism, *The African Journal of Information Systems*, 7, 1, 21-39.
- Pérez-Latre, F.J., Portilla, I. and Sánchez-Blanco, C. (2011) Social networks, media and audiences: A literature review, *Communicación y Sociedad*, XXIV, 63-74.
- Peters, C., Amato, C.H. and Hollenbeck, C.R. (2007) An exploratory investigation of consumers' perception of wireless advertising, *Journal of Advertising*, 36, 4, 129–145.
- Preece, J., Nonnecke, B. and Andrews, D. (2004) The top five reasons for lurking: Improving community experiences for everyone, *Computers in Human Behavior*, 20, 2, 201-223.
- Raacke, J. and Bonds-Raacke, J. (2008) MySpace and Facebook: Applying the uses and gratifications theory to exploring friend-networking sites, *Cyberpsychology and Behavior*, 11, 2, 169-174.
- Ridings, C., Gefen, D. and Arinze, B.B. (2006) Psychological barriers: Lurker and poster motivation and behavior in online communities, *Communications of the Association for Information Sciences*, 18, 1, 329-354.
- Romesburg, H.C. (2004) Cluster analysis for researchers, Lulu Press, North Carolina.

- Rust, P.T., Kannan, P.K. and Peng, N. (2002) The Customer economics of Internet Privacy, *Journal of the Academy of Marketing Science*, 30, 4, 455-464.
- Safko, L. and Brake, D.K. (2009) The Social Media Bible: Tactics, Tools & Strategy for Business Success, John Wiley & Sons, Hoboken, New Jersey.
- Schaufeli, W.B., Salanova, M., González-Romá, V. and Bakker, A.B. (2002) The measurement of engagement and burn-out: A two sample confirmatory factor analysis approach, *Journal of Happiness Studies*, 3, 1, 71-92.
- Schlosser, A.E., Shavitt S. and Kanfer, A. (1999) Survey of internet users' attitudes toward internet advertising, *-Interactive Marketing*, 13, 3, 34-54.
- Sheehan, K.B. and Hoy, M.G. (2000) Flaming, complaining, and abstaining: How online users respond to privacy concerns, *Journal of Advertising*, 28, 3, 37-51.
- Smith, H.J., Milberg, S.J. and Burke, S.J. (1996) Information Privacy: Measuring individuals' concerns about organizational practices, *MIS Quarterly*, 20, 2, 67–196.
- So, K.K.F., King, C. and Sparks, B. (2012) Customer engagement with tourism brands: Scale development and validation, Journal of Hospitality and Tourism Research, 38, 3, 304-329
- Statista. (2016a) Distribution of Facebook users worldwide as of 4th quarter 2014, by age. [Online] Available from http://www.statista.com/statistics/376128/facebook-global-user-age-distribution/.
- Statista. (2016b) Global social networks ranked by number of users 2016. [Online] Available from http://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/.
- Statistics South Africa. (2015) General Household Survey 2015. [Online] Available from http://www.statssa.gov.za/publications/P0318/P03182015.pdf.
- Stevenson, J., Bruner, G. and Kumar, A. (2000) Webpage background and viewer attitudes, *Journal of Advertising Research*, 40, 1/2, 29-34.
- Taube, A. (2015) Is banner blindness spreading to the Facebook news feed? [Online] Available from https://contently.com/strategist/2015/02/26/is-banner-blindness-spreading-to-the-facebook-news-feed/.
- Taylor, D.G., Lewin, J.E. and Strutton, D. (2011) Friends, fans, and followers: Do ads work on social networks? *Journal of Advertising Research*, 51, 1, 258–275.
- Turow, J., King, J., Hoofnagle, C.J., Bleakley, A. and Hennessy, M. (2009) Americans reject tailored advertising and three activities that enable it. [Online] Available from http://ssrn.com/abstract=1478214.
- van Doorn, J., Lemon, K.N., Mittal, V., Nass, S., Pick, D., Pirner, P. and Verhoef, P.C. (2010) Customer engagement behavior: Theoretical foundations and research directions, *Journal of Service Research*, 13, 3, 253-266.
- Vatanparast, R. and Asil, M. (2007) Factors affecting the use of mobile advertising, *International Journal of Mobile* Marketing, 2, 2, 21-34.
- Vellido, A., Lisboa, P.J.G, and Meehan, K. (1999) Segmentation of the on-line shopping market using neural networks, *Expert Systems with Applications*, 17, 4, 303-314.
- Verhoef, P.C., Reinartz, W.J. and Kraft, M. (2010) Customer engagement as a new perspective in customer management, *Journal of Services Research*, 13, 247-259.
- Vinerean, S., Cetina, I., Dumitrescu, L., and Tichindelean, M. (2013) The effects of social media marketing on online consumer behavior, *International Journal of Business and Management*, 8, 14, 66-79.
- Vivek, S.D., Beatty, S.E. and Morgan, R.M. (2012) Consumer engagement: exploring customer relationships beyond purchase, *Marketing Theory and Practice*, 20, 2, 122-146.
- Wang, Y. and Sun, S. (2010a) Assessing beliefs, attitudes, and behavioral responses toward online advertising in three countries, *International Business Review*, 19, 4, 333–344.
- Wang, Y. and Sun, S. (2010b) Examining the role of beliefs and attitudes in online advertising: A comparison between the USA and Romania, *International Marketing Review*, 27, 1, 87-107.

Westin, A.F. (2002) Privacy On and Off the Internet: What Consumers want, Harris Interactive, Inc Report.

- WhyFive. (2015) SA Shopper Youth Report, [Online] Available from http://www.whyfive.co.za/sa-shopper-youth-report-2015/.
- Wiese, M. and Du Plessis, G. (2014) The battle of the e-textbook: Libraries' role in facilitating student acceptance and use of e-textbooks, *South African Journal of Library and Information Sciences*, 80, 2, 17-26.
- Wiese, M., Lauer, J., Pantazis, G. and Samuels, J. (2014) Social networking experiences on Facebook: A survey of gender differences amongst students, *Acta Commercii*, 14, 1, 218-225.
- Wilson, R.E., Gosling, S.D. and Graham, L.T. (2012) A review of Facebook research in the social sciences, *Perspectives on Psychological Science*, 7, 3, 203-220.
- Wollin, L.D., Korgaonkar, P. and Lund, D. (2002) Beliefs, attitudes and behavior towards Web advertising, *International Journal of Advertising*, 21, 87–113.
- Wu, J., Sun, H. and Tan, Y. (2013) Social media research: A review, *Journal of Systems Science and Systems Engineering*, 22, 257-282.