

# **Converting a social network into a brand network: How brand profile on Facebook is used as an online marketing communication tool**

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## **Attestation of Authorship**

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the qualification of any other degree or diploma of a university or other institution of higher learning, except where due acknowledgement is made in the acknowledgments.

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## **Abstract**

The rapid growth of social network sites, such as Facebook and MySpace, has recently received a great deal of attention from both academics and practitioners. Millions of users actively participate on social network sites. Facebook alone has more than 500 million registered users. Marketers have begun to recognise these social network sites as a new avenue to promote their brands online. Top businesses around the world create their brand profiles on popular social network sites.

At the same time, research on social network sites is relatively scarce. Particularly, research investigating businesses' practices of using the new media of virtual social network for their brands is very limited. The present study employs content analysis to investigate how top Global, Australian, Japanese, Swiss, and Taiwanese businesses use brand profile pages on Facebook as their online marketing communication tool. Differences in the use of brand profile pages as an online marketing communication tool across the above mentioned four countries and across industries are also examined.

Overall, the results of the present research indicated that businesses with product brands were more likely to have brand profile pages on Facebook than their service counterparts. However, the practices of businesses with product brands and service brands on Facebook were not found to be much different. Similarly, it was found that there is not much difference in the use of brand profiles among brands from different countries and industries. The lack of differences might imply that businesses tend to use only basic features of their brand profile pages and are not likely to develop distinctive content. Moreover, several tools which have the potential to be valuable resources to obtain feedback from consumers, such as polls and discussions, were found to be underutilised. The interesting finding is that there is an association between businesses' use of brand profile pages and brand value. However, the direction of the relationship could not be established. Several implications and future research opportunities are provided in the dissertation.

# **Chapter 1**

## **Introduction**

During the last decade, the marketing world has been challenged by the emergence and rapid diffusion of a new phenomenon known as “Web2.0.” As its name signals, Web2.0 refers to a new generation of tools or web applications that enhance individuals’ ability to publish their opinion, share information, and collaborate with each other via the Internet (Cooke & Buckley, 2008). Its ability to bring in people who share similar interests and empower their voice gave rise to its popularity (Acar & Polonsky, 2007). The well-known examples of these social tools are blogs, wikis, and social network sites. User-generated content created by Web2.0 is known as “social media” (T. Smith, 2009).

Consumers’ growing interest in social media has been evidenced in the literature. For instance, from 2006 to 2008, the proportion of people who watched video clips online via streaming sites, such as YouTube, had risen dramatically from 32 percent to 83 percent (T. Smith, 2009). Consumers are no longer passively absorbing the information provided by firms via traditional media. Rather, they actively surf through a variety of sources. To find information about a particular brand or product, consumers browse through users’ reviews on blogs, online forums, or ask for a comment on social network sites. During this process, they encounter different kinds of data whether they are facts, opinions, or recommendations (Cole, 2007). In fact, if one searches for information online, the results are dominated by user-generated content (T. Smith, 2009).

Among the social media, social network sites are of particular interest of this study due to the lack of research in this area despite their rising popularity. Social network sites have grown and are expected to continue growing at a dramatic rate. Nowadays, on Facebook alone, there are more than 500 million users registered to the site (BBC, 2010). Moreover, over 250 million users log on to Facebook every day (Facebook, 2010). Its rising popularity means that it has become the second most popular Web site

in the world after Google (Alexa.com, 2010a). It has been found that students spend around 3 hours on social network sites each day (Raacke & Bonds-Raacke, 2008). Using social network sites has been found to enhance individual's self-esteem and well-being (Valkenburg, Peter, & Schouten, 2006), social trust, civic engagement, political participation (Valenzuela, Park, & Kee, 2009), social capital (Ellison, Steinfield, & Lampe, 2007), and so forth. It has been reported that many firms are now using social network sites to help them screen potential job candidates (e.g., Haefner, 2009; Mary, Charlie, Jitendra, & Bharat, 2010; Workforce.com, 2009). Moreover, firms can also develop their own internal social network site to connect with their employees, bond them together and enhance communication (Majchrzak, Cherbakov, & Ives, 2009). Given the potential influence of social network sites on the general public, both academics and businesses pay a great deal of attention to the happenings on these sites.

Even though a considerable number of studies have been conducted to investigate many issues related to social network sites, numerous areas are still unexplored. One particular area that deserves more attention is businesses' brand practices on social network sites. Several scholars have pointed out that social network sites could be a valuable marketing tool (e.g., Jansen, Zhang, Sobel, & Chowdury, 2009; Mabry & Porter, 2010; T. Smith, 2009). However, it has been found that the number of studies examining brand practices on social network sites is very limited (i.e., Jansen, et al., 2009; Kuhn & Burns, 2008; Zhang, Sung, & Lee, 2010).

As far as the author's knowledge is concerned, there are only three studies that directly investigate actual businesses' use of social network sites for brand promotion. Jansen, Zhang, Sobel, and Chowdury (2009) found that Twitter can be used as a powerful tool for generating electronic word of mouth. Zhang, Sung, and Lee (2010) reported that product brands and service brands' use social network sites in a different manner. Kuhn and Burns (2008) found that brands use MySpace as their online marketing platform. However, their practices are still far from perfect. Several valuable tools, such as polls which can be used to obtain feedback from consumers, are underutilised. The details of these studies will be further discussed in the literature review section. Nevertheless, as stated earlier, relatively little is known about how firms can use popular social network sites as their marketing tool and how they contribute to firms' performance.

Overall, very little is known about businesses' brand practices on social network sites. In particular, there is no study that examines brand practices on Facebook, which is now the most popular social network site. This research aims to fulfil this gap in the literature by employing content analysis of brand profile pages on Facebook. Based on the above discussion, this study attempts to investigate how features available on Facebook are used by businesses to promote their brands and to examine whether there is an association between businesses use of this social network site for brand promotion and brand value. Since there has been no such study conducted on Facebook before, this study could be used as a comparison point to evaluate other studies on the similarity or difference in brand practices across social network sites.

Facebook was chosen as the focus of this study since it is now the most popular social network site in terms of the number of users. Also, as stated above, this kind of study has never been conducted on Facebook before. Given its influences on consumers, this study aims to address several research questions in order to provide a better understanding of the business practices on Facebook. Research questions developed in the present study are as given below:

- RQ1: How is each tool available on brand profile pages used by businesses for the purpose of online marketing communication (OMC), including online advertising, online marketing public relations (MPR), online sales promotion, and online relationship communications? Are some tools being used more frequently than others?
- RQ2: Is there any difference in the businesses' use of brand profile pages among product and service brands? If so, what is (are) the difference(s)?
- RQ3: Is there any difference in the use of brand profile pages among brands of various businesses from different countries? If so, what is (are) the difference(s)?
- RQ4: Is there any difference in the use of brand profile pages among brands of various businesses from different industries? If so, what is (are) the difference(s)?

- RQ5: Is there any association in the use of tools on brand profile pages and brand value?

## **1.1 Expected Research Contribution**

Given the scarcity of research on the Facebook, the most popular social network site, this study is expected to better the understanding for both academics and business practitioners.

Firstly, because there is no study investigating businesses' use of Facebook profile pages for brand promotion, this study is expected to contribute to the body of knowledge regarding contemporary brand promotion practices of leading firms. Moreover, the coding schedule developed in this study will also be valuable for future researchers interested to study various aspects of a social network site. Future research could adopt or refine the coding scheme employed in this study to evaluate brand practices across different social network sites. Moreover, the replicability of the content analysis research offers an opportunity for future researchers to compare brand practices across a period of time by conducting longitudinal studies. Finally, this research is among the first to investigate the differences in brand practices on social network sites across countries as well as it is the first study that directly examines the association between brand value and businesses' use of a social network site.

As for practitioners, this research will provide information about tools being used on Facebook for online marketing communication and how these tools are used by top brands. Practitioners could learn from the advantages and flaws of the contemporary practices of current business users.

## **1.2 Organisation of the Dissertation**

This dissertation is divided into five chapters. The first chapter provides a brief introduction to the research. It discusses the importance of conducting this study, the research motivation and the expected contributions of the research. The second chapter presents an exhaustive literature review on social network site. A gap in the literature is identified and discussed. It also provides a brief review of the online marketing

communication literature. The typology of online marketing communication is introduced as a theoretical foundation to develop a coding schedule used in the content analysis for this study. Chapter 3 outlines the research methodology. Several research questions are proposed. Procedures taken to define sampling units, coding units, and context units are discussed in detail as well as coding procedures. Chapter 4 discusses the analyses of data and their results. Finally, Chapter 5 provides a summary and conclusions of the present research. Implications and limitations of the research are also discussed. Several areas are identified as potentially valuable avenues for future research, followed by concluding remarks.

# **Chapter 2**

## **Literature Review**

This chapter provides a review of relevant literature on the topics of social network site (SNS) and online marketing communication (OMC). The first part of this chapter will provide fundamental information on SNS including its definition and characteristics, its emergence and growth, as well as the research in this area. The second part of this chapter will deal with the concept of OMC including a brief overview of Integrated Marketing Communication (IMC), the initiation of OMC as a separate discipline, its definition, its components, and the application of SNS as an OMC tool. The third part of this chapter will discuss the gap in the literature that this paper aims to fill.

### **2.1 Social Network Site (SNS)**

#### **2.1.1 Definition and Characteristics of SNS**

The terms social network site (e.g., Antin & Earp, 2010; boyd & Ellison, 2008; Honeycutt & Cunliffe, 2010), social networking site (e.g., Miller, Parsons, & Lifer, 2010; Peluchette & Karl, 2008; Zywica & Danowski, 2008), social networking Web site (e.g., Agarwal & Mital, 2009; Cardon, et al., 2009; Zhang, et al., 2010), and online social networks (e.g., Acar, 2008; Acar & Polonsky, 2007; Krasnova, Spiekermann, Koroleva, & Hildebrand, 2010) have been used interchangeably. This has led to the use of various acronyms (i.e., SNS for social network site and social networking site, SNW for social networking Web site, and OSN for online social network) which arguably could, sometimes, confuse readers. Some authors have used different terms across their studies (e.g., Thelwall, 2008, 2009). Moreover, inconsistent usage is evident even within the same paper (Gomez-Arias & Genin, 2009). While some academics regard these terms as identical (Tufekci, 2008), several authors have pointed out some differences among them (Beer, 2008; boyd & Ellison, 2008; Raacke & Bonds-Raacke, 2008; Valkenburg, et al., 2006).

In their seminal paper, boyd and Ellison (2008) deliberately chose the term social network site over social networking site. Their argument was that people typically use a social network site to maintain their relationships with those who share some offline connections with them rather than to initiate new relationships with strangers, as signalled by the term networking. This does not imply that networking is unusual on a social network site. Instead, it is not the primary focus. Beer (2008) criticized the argument of boyd and Ellison (2008), stating that the scope of the term social network site is too broad and might be problematic. He suggested that the term social networking site might be better in narrowing the scope down since it stands for something particular, a site that focuses on forming a network. Several scholars further complicated this matter by breaking down the concept of the social network site into various categories based on its focus such as a dating site, common interest networking site, and friend networking site (Raacke & Bonds-Raacke, 2008; Valkenburg, et al., 2006).

In this paper, the term social network site (SNS) will be adopted based on the observation made by boyd and Ellison (2008) that although forming a new relationship online is not unusual, it is not a primary objective of users – an observation proved to be valid in several studies (e.g., Ellison, et al., 2007; Thelwall, 2009).

boyd and Ellison (2008, p. 211) define SNS as “web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site.” The well-known examples of SNSs are Facebook and MySpace.

Typically, after the site is launched, founders send out invitations to their friends, family, or other prospects. Once the invitation is accepted, the invitee then becomes part of the network and begins to repeat the loop (Cole, 2007). Specific themes are normally used by service providers to distinguish their SNS from others. For example, Facebook is perceived as an intimate network of close acquaintances. When Facebook began its service, only those who had Harvard University’s email account were allowed to join the network. Even when it was opened to the general public and its popularity began to

rise, the majority of users still used it to connect with their real world acquaintances, namely school mates and workplace colleagues (boyd & Ellison, 2008). Last.fm is a SNS that offers a network space for music lovers to listen and legally download their favourite songs as well as connect to others who share the same taste in music (Baym & Ledbetter, 2009). BlackPlanet.com is a SNS that aims to connect black people throughout the world (Byrne, 2008). As soon as an individual registers on a network, a series of simple questions (e.g., name, age, location, interests) will be asked. The answers are then used to generate a personalised profile page. Users can browse through their friends' profiles as well as their friends' network. However, how far users can traverse in their friends' network varies across SNSs (boyd & Ellison, 2008). The relationship between users in most SNSs is bi-directional which means that mutual acceptance is needed before the relationship can be established. This is not the case for some sites such as Twitter (Jansen, et al., 2009). Most sites offer several tools which users can use for communication with others such as private messages, comments, and forums. The level of privacy and some other features are also slightly different across sites. Overall, key elements of a SNS are (1) users' personalised profiles and connections (boyd & Ellison, 2008; Trusov, Bucklin, & Pauwels, 2009), (2) its ability to group together individuals who share similar interests (Honeycutt & Cunliffe, 2010; Nov, Naaman, & Ye, 2010), and (3) its richness of user-generated content (Jansen, et al., 2009; Thelwall & Wilkinson, 2010).

### **2.1.2 A Brief History of SNS**

The origin of SNS dates back to 1967 when Milgram (1967) conducted his famous “small world experiment.” He posited that any two individuals can be connected through a chain of six people at any given point in time. This proposition was further confirmed by subsequent research (Cole, 2007). Thirty years later, Sixdegree.com, named after Milgram’s experiment, was launched and became the first widely known SNS. Its basic features included friend invitations, messaging, a bulletin board, and network browsing which are still common functions in a SNS today (boyd & Ellison, 2008). Although more than three million users registered to the site, it was shut down in 2000 and was sold to Youthstream Media Networks due to financial difficulties (Hempel, 2006). Since then, many sites have emerged and have grown at a rapid rate. Numerous other social media sites have also started evolving themselves into a SNS,

including YouTube (video sharing site), Flickr (photo sharing site), and Cyworld (Korean virtual world), to name a few. The timeline of the launch dates of major sites has been provided by boyd and Ellison (2008). Among all SNSs, the two sites that have gained a lot of popularity among net-surfers as well as attention from academics are MySpace and Facebook.

MySpace was launched in 2003 with the purpose of creating a space where musicians and their fans could connect and interact (Antin & Earp, 2010; Suhr, 2009). The popularity of MySpace rose rapidly, partly due to the fall of Friendster (boyd & Ellison, 2008). News Corporation recognised the growth potential of MySpace and bought it for \$580 million in 2005 (BBC, 2005). Not long after the acquisition, MySpace became the most visited Web site in the United States, capturing almost 80 percent of all SNS visits (Reuters, 2006). Google, attracted by MySpace's large user base and its promising growth rate, signed a \$900 million contract with News Corporation in 2006 in order to provide search engine and display text-based advertisements on MySpace (BBC, 2006). In the same year, the number of registered users on MySpace was reported to exceed 100 million. MySpace was also found to be a popular source of information among movie lovers (Suhr, 2009). A distinctive feature of MySpace is its customisability. Users can easily create unique profile pages with a basic knowledge of Hyper Text Markup Language (HTML) (Fullwood, Sheeha, & Nicholls, 2009). Nevertheless, MySpace's popularity began to decline lately after its popularity was surpassed by its major competitor, Facebook, for the first time in April 2008 (Arrington, 2008). In October 2010, MySpace was ranked as the 31<sup>st</sup> most visited Web site worldwide, the 19<sup>th</sup> in the United States (Alexa.com, 2010b) and had 59.48 million monthly unique visitors (Compete.com, 2010b).

Facebook was launched in early 2004 as a private SNS for Harvard University's students and staff (Cassidy, 2006). Facebook expanded its service to other universities later on in the same year, to high schools in September 2005, and eventually it opened to everyone in September 2006 (boyd & Ellison, 2008). Facebook was regarded as the fastest growing SNS even though its popularity was always second to that of MySpace (Mary, et al., 2010). In October 2007, Microsoft purchased 1.6 percent share of Facebook (Ante, 2008) for \$240 million in exchange for the right to become the exclusive third-party advertising partner (Microsoft, 2007). One of the distinctive

characteristics of Facebook is that users' networks on Facebook usually reflect those in their real life (K. Lewis, Kaufman, & Christakis, 2008). Facebook officially outperformed MySpace in April 2008 in terms of popularity and continued to grow at an impressive rate (Arrington, 2008). From 448 thousand users registered to the site in October 2006, Facebook just recently celebrated its 500 millionth user in July 2010 (BBC, 2010) and half of its active users log on to the site on any given day (Facebook, 2010). Due to its current reach, 22 percent of employers check a candidate's Facebook profile before hiring (Mary, et al., 2010). In October 2010, Facebook was ranked as the second most visited Web site after Google, both worldwide and in the United States (Alexa.com, 2010a) and had 130.81 million monthly unique visitors (Compete.com, 2010a).

Notably, there are other SNS which outperform MySpace and Facebook in specific countries. These include Orkut in India, Mixi in Japan, LunarStorm in Sweden, and Cyword in Korea (Cardon, et al., 2009). However, their impact as a whole is still far less than that of MySpace and Facebook.

### **2.1.3 Research on SNS**

To date, a considerable amount of research has been done on SNS, especially in the last couple of years. A wide range of issues have been discussed in studies from various disciplines. boyd and Ellison (2008) reviewed the body of literature and reported that a great deal of attention had been paid to four major issues: impression management and friendship performance, networks and network structure, online/ offline connections, and privacy issues.

## **Users and Non-users of SNS**

boyd and Ellison (2008) questioned who does and does not use SNS, however this question still remains largely unanswered. There are very few studies which directly investigate the differences between users and non-users of SNS. Hargittai (2008) conducted a survey of American university students and found that female respondents were more likely to be SNS users than their male counterparts. Participants who were not living with their parents and were spending more time on the Internet were also more likely to be SNS users. Nevertheless, the sample size of this study was relatively

small ( $n = 85$ ). Thus, the generalisability of the findings was questionable. Tufekci (2008) adopted both quantitative and qualitative approaches to investigate the difference between users and non-users of SNS. In line with the findings of Hargittai (2008), Tufekci (2008) found gender to be the strongest demographic variable predicting the use of SNS. Females were more likely than males to be SNS users. However, living place and the use of SNS were not found to be associated. In terms of time spent on the Internet, no significant difference was found between users and non-users, contradicting the result of Hargittai (2008). Tufekci also found that the manner in which SNS users and non-users utilised the Internet was different. Specifically, SNS users were found to spend more time using the Internet for expressive purpose. Attitude towards social grooming activities emerged as another variable differing users and non-users. Specifically, non-users reported less interest in, or even an opposing attitude towards, gossip, small talk, and similar activities. Another interesting finding of this study was that the number of close friends reported by users and non-users of SNS were not statistically different. Interview results clarified that non-users did not have a negative attitude towards online communication in general. They reported using other forms of communications such as instant messaging service. It was rather the social grooming function of SNS that they had less interest in. These findings were further supported by a large scale content analysis of MySpace conducted by Thelwall and Wilkinson (2010).

Adding to the above research, Hargittai and Hsieh (2010) developed a typology of SNS users based on usage intensity. Four types of SNS users emerged apart from non-users. First, “dabblers” refer to users who use only one SNS and not frequently. Second, “samplers” are those users who use several SNS but do not really engage in them. Third, “devotees” are users who use only one SNS but actively participate on the site. Finally, “omnivores” are heavy users who use multiple SNS and spend a lot of time on them.

## Motivations to Join SNS

Unlike the previous issue of who does and does not use SNS, much research has been conducted regarding motivating factors influencing people to join SNS. Foster, Francescucci, and West (2010) identified key variables that affect individuals’ decision to join a SNS. The result of their factor analysis revealed five key factors. They are

community membership, information value, friendship connection, participation concerns, and participation confidence. Whereas the first three variables were found to be driving forces, the last two factors, namely participation concerns and participation confidence, were found to be potential barriers to participation.

Pelling and White (2009) adopted the theory of planned behaviour (TPB) to explain the reason why young people use SNS. The results indicated that respondents who had a more favourable attitude towards SNS and felt more pressure from their friends were more likely to join a SNS. However, one component of TPB, namely perceived behavioural control (PBC) was found to be an insignificant predictor. Self-identity was found to have a direct impact on the intention to join a SNS. The relationship between a positive attitude towards SNS and the willingness to join was also supported in the study of Gangadharbatla (2008). In his study, Gangadharbatla (2008) also found collective self-esteem, the need to belong, and Internet self-efficacy to have influences on attitude towards SNS. Sledfianowski and Kulvivat (2009) combined the theory of reasoned action (TRA) and the technology acceptance model (TAM) together and developed the social network site adoption model. As a result, they found that the perceived playfulness of the site, perceived critical mass, perceived trust, perceived ease of use, and perceived usefulness were significant predictors of users' intention to join a SNS.

Another stream of research has adopted the uses and gratifications theory to identify reasons for SNS participation (e.g., Park, Kee, & Valenzuela, 2009; Raacke & Bonds-Raacke, 2008). Haridakis and Hanson (2009) and Park, et al. (2009) found four primary needs to be the driving forces for individuals to join a SNS. They are the need for socialising, to entertain oneself, to seek self-status, and to obtain information. Among these, the need for socialising appeared to be the strongest motivator. Moreover, the results from past research, overall, indicated that participants were more likely to join an SNS to communicate with their friends and to keep in touch with their old acquaintances than to find new friends online (Calin & Carmen, 2009; Raacke & Bonds-Raacke, 2008).

## **Differences in Social Networking Behaviours among Various Types of Users**

Several interesting differences among various types of users have been pointed out by previous research. Based on uses and gratifications theory, Park, et al. (2009) found that users who joined a SNS to gratify their need for information were more likely to engage in civic and political activities than those who joined primarily for entertainment.

Users' level of self-esteem also influences their behaviour on SNS. Specifically, Zywica and Danowski (2008) found that individuals who had higher self-esteem and were more extroverted tended to be more popular, both on SNS and in real life, compared with their lower-self esteem and more introverted counterparts. They also were reported to be less likely to care about online popularity. In contrast, introverted respondents who had a lower level of self-esteem were found to employ various strategies in order to become popular online. Interestingly, Acar (2008) found that individuals with a higher level of self-esteem were less likely to accept friend requests from strangers on SNS. In addition, Dong, Urista, and Gundrum (2008) also found that individuals with lower self-esteem were more likely to engage in a romantic communication on SNS. In terms of collective self-esteem, Barker (2009) found that females tended to have a higher level of collective self-esteem and individuals who had this higher collective self-esteem were more likely to use SNS to communicate with similar others. Conversely, respondents who reported a lower level of collective self-esteem were more likely to use SNS to communicate with other group members.

It has also been found that several variables influence users' behaviour on SNS. First, a study by Acar (2008) found that females spent more time on SNS and had a larger network size. Thelwall, Wilkinson, and Uppal (2010) found that females also gave and received more positive comments and, according to Magnuson and Dundes (2008), were more likely to mention their significant others on their profile page than their male counterpart. Second, Fullwood, et al. (2009) found that age influenced users' blogging behaviour on SNS in terms of tone used and writing style. Third, Orr, et al.'s (2009) study showed that individuals who reported a higher level of shyness tended to spend more time on SNS, had a more positive attitude towards SNS, and had a lower number of friends. Fourth, Baker and Moore (2008) found that those who reported a higher level

of psychological distress were more likely to use a blogging function on SNS to relieve their frustration. Fifth, Nov, et al. (2010) reported that expertise and self-development influenced users' information-sharing behaviour on SNS. Finally, Benson, Filippaios and Morgan (2010) found that senior students and international students were more likely to exploit their social connections on SNS for career opportunities than their counterparts.

## **Benefits of SNS**

SNS users spend a great deal of time on SNS. On Facebook alone, people collectively spent 700 billion minutes monthly on the site in 2010 (Facebook, 2010). Some scholars initially cautioned that spending a lot of time on SNS might affect individuals' academic performance. However, it was found that this was not the case. Hargittai and Shieh (2010) reported that no significant association was found between time spent on SNS and respondents' academic performance. Moreover, Valkenburg, et al. (2006) found that frequent usage of SNS could enhance users' self-esteem and well-being via the route of social interaction, while Valenzuala, et al. (2009) found frequent usage to improve social trust, civic engagement, and political participation. A qualitative interview conducted by Greenhow and Robelia (2009) provided further insights into this issue. Respondents reported that they spent their time on SNS because the benefits outweighed the costs. The use of SNS gave them emotional support from peers, helped them keep in touch with acquaintances, and provided them a space for self-presentation. Several examples were given regarding how respondents used SNS as their social learning resources. In addition, SNS could also be used as a space for individuals to express their concern for the community. Although Byrne (2008) found that the use of SNS in this regard did not influence people's actions much in the real world , its future potential was noted as being worthy of attention. Moreover, Notley (2009) found that those who were at risk of social exclusion, such as those who had problems with mental issues or teen pregnancy, regarded SNS to be a valuable means to help them maintain a relationship with their acquaintances, share their experience with similar others, and receive social support. Furthermore, a study by Shen and Khalifa (2010) found that in some countries where cultural traditions restricted women's right to express themselves, SNS was regarded as a meaningful tool to help them develop their identity, express themselves more freely, and expand their social connections.

Ellison, Steinfield, and Lampe (2007) attempted to examine the contribution of SNS to users' social capital. Social capital refers to resources, either tangible or intangible, which can be drawn from other people in one's social network. According to Ellison, Steinfield, and Lampe (2007) there are three dimensions of social capital. These are bonding social capital, bridging social capital, and maintained social capital. Bonding social capital, or strong ties, can be found among people who have a close and intimate relationship, such as family. Bridging social capital, or weak ties, can be found in more loosely connected relationships. Maintained social capital is a new concept which can be found online when individuals are able to maintain their relationship with their old acquaintances that are physically disconnected. The results of their study indicated that SNS enabled people to enhance their bridging and maintained social capital, but not bonding social capital. The fact that the creation and maintenance of weak ties are more common on SNS than those of strong ties was supported by subsequent research (Baym & Ledbetter, 2009; J. Lewis & West, 2009). Sargent (2009) provided a good example of how local musicians can use SNS to enhance their social capital by keeping in touch with their fans and reaching out to broader audiences.

## **Online and Offline Social Network**

Individuals' social network on SNS has been found to reflect that of its offline counterpart. Grasmuck, Martin, and Zhao (2009) found that many of the social interactions on Facebook occurred among users who were friends in real life. In a similar vein, Thelwall (2009) found that MySpace users were more likely to befriend and interact with people who were similar to them in terms of ethnicity, religion, age, country, marital status, attitude towards children, sexual orientation, and reason to join MySpace. In addition, Thelwall posited that, overall, many of the online friends that MySpace users actively engaged with were also their offline friends. Nevertheless, this might hold true only for anonymous SNS. The cross-cultural study of Cardon, et al. (2009) demonstrated inconclusive patterns of results across different SNS and questioned conventional wisdom regarding the effects of individualism and collectivism.

## **SNS as an Impression Management Tool**

Several studies have been conducted and have revealed how SNS profile pages are used to reflect the image of profile owners (boyd & Ellison, 2008). Liu (2008) carried out a large scale analysis of 127,477 MySpace profiles and found that MySpace users indeed used their profiles to convey their taste. Four major themes emerged from the analysis. These were prestige, differentiation, authentic, and theatrical personas. Based on their content analysis of Facebook profiles and subsequent interviews, Grasmuck, Martin, and Zhao (2009) found that African American, Latino, and Indian students used their profiles to convey their racial identity and sense of belonging to their race. Conversely, Vietnamese and white students exhibited no such sign. Another study conducted by Takahashi (2010) also found evidence of impression management on SNS by Japanese users. He found that Japanese users projected themselves differently on MySpace and Mixi (leading Japanese SNS). Respondents' profiles on Mixi were found to reflect a sense of group belonging whereas their profiles on MySpace were found to display an image of independent self.

Evidence was found in the literature that visitors to SNS profiles also use the information on these profiles to determine owners' personalities (Walther, Heide, Hamel, & Shulman, 2009). The number of friends a user has was found to be used by visitors as a cue reflecting popularity. However, the relationship between the number of friends a user has and their popularity has been found to be curvilinear in nature. In other words, as the amount of friends a user has increases, the perceived popularity of the user also increases (Tong, Heide, Langwell, & Walther, 2008; Utz, 2010). Nevertheless, if the number of friends increases beyond a particular point, perceived popularity begins to drop (Tong, et al., 2008). Walther, Heide, Hamel, and Shulman (2009) found that, in line with the warranting theory, others-generated information on a SNS profile had a stronger impact on visitors' perception of the profile owner than self-generated information. Subsequent research conducted by Utz (2010) provided further understanding regarding this issue. He found that others-generated information was indeed more persuasive in the case of the owner's communal orientation and social attraction, but not for the perceived popularity of the profile owner.

## **Misuses of SNS and Privacy Issues**

A huge amount of information is generated on SNS every single day. On Facebook alone, it was reported that over 30 billion pieces of content including links, blog posts, photos, and so forth, were created and shared (Facebook, 2010). There is an obvious danger if individuals with ill intention have access to this kind of personal information. It has been reported that having a profile on SNS and disclosing personal information could lead to a threat of jealousy (Muise, Christofides, & Desmarais, 2009), cyberbullying (Mesch, 2009) and sexual assault (Christ, Berges, & Trevino, 2007). Given the seriousness of this issue, it is not surprising that a lot of attention has been paid to this matter.

Although several SNS service providers have appeared to recognise the problems related to privacy and have put effort into improving their security system (Massey, 2009; Troiano, 2008), in the end, these problems cannot be solved if users continue to share their personal information. One of the ways that can be applied easily to limit access to personal information is to set the profile to private. Private profiles can be accessed only by users' friends. However, Lewis, Kaufman, and Christakis (2008) found that only one-third of Facebook users made use of this function. Only those whose friends had private profiles and those who had more experience with SNS were likely to set their profiles to private. Regarding gender, Hoy and Milne (2010) found that female users exhibited greater concern for privacy protection than their male counterparts. Livingstone (2008) also found that young users lacked a clear understanding of the privacy concept and had technical difficulty dealing with privacy settings. In the studies of Miller, et al. (2010) and Peluchette and Karl (2008) SNS users admitted to posting content on their profiles that they did not want seen by some parties, such as future employers.

Even though their information disclosing behaviour may pose a threat to them in the future, it is surprising that only a minority of SNS users exhibit some kind of control over their data. Tow and Dell (2008) conducted an ethnographic study of Australian Facebook users and found that most of the users were simply not aware of the danger. Although some users were aware of this danger, they believed that the chance of their being harmed by their disclosing behaviour was very low. Similar results were found in

subsequent research conducted by Debatin, Lovejoy, Horn, and Hughes (2009). A slightly higher level of privacy protection was found among MySpace users in the study of Patchin and Hinduja (2010). However, the study of Miller, Parsons, and Lifer (2010) found a striking difference insofar as students were well aware of the danger that might derive from the content they posted but they did care about it. Rather, they continued to post a considerable amount of personal information. Krasnova, Spiekermann, Koroleva, and Hildebrand (2010) provided a possible explanation for this phenomenon. Their study showed that users had a great deal of trust in their friends and service providers, believing that their sensitive information would never be used in a harmful way. Christofides, Muise, and Desmarais (2009) found that trust indeed affected the level of control over personal information, but not information disclosure.

## **Other Uses of SNS**

The evidence of an increased usage of SNS for various purposes has been reflected in the literature. It has been found that around 22 to 45 percent of employers use SNS to check the background of job candidates before hiring (Haefner, 2009; Mary, et al., 2010; Workforce.com, 2009) and around 18 percent of employers report making a positive decision based on the information on candidates' profiles (Haefner, 2009). Jobseekers too have been found to regard SNS as one of the tools for their job search (DeKay, 2009; Haefner, 2009). Unfortunately, there have also been several cases in which employers have turned down potential job candidates because of inappropriate content found on their SNS profiles (Elzweig & Peeples, 2009; Foulger, Ewbank, Kay, Popp, & Carter, 2009; Genova, 2009; Roberts & Roach, 2009). This issue has raised concerns about employee's privacy rights. Currently there is no concrete instruction regarding the use of SNS as a tool for hiring, therefore it has been suggested that jobseekers need to be cautious of the appropriateness of the content they post online (Roberts & Roach, 2009). It has also been recommended that employers carefully check related laws and regulations in their states or countries (Elzweig & Peeples, 2009; Genova, 2009).

There are many other ways that SNS could be used to benefit organisations apart from the hiring process. Majchrzak, Cherbakov, and Ives (2009) provided a case study of IBM who developed an internal SNS and successfully enhanced their internal

communications and performance. Internal SNS has also proved to be successful in the educational context (Hayes, Ruschman, & Walker, 2009). Further, political candidates have used SNS as a valuable venue to raise their votes (Ancu & Cozma, 2009; Utz, 2009). Utz (2009) found that political communications on SNS could reach audiences who were less interested in politics. Moreover, a favourable attitude towards a particular candidate could be enhanced if the candidate responded to users' comments on SNS. Dunlap and Lowenthal (2009) reported a successful case study in which Twitter was employed as part of educational online learning tools. The results suggested that the use of Twitter could promote communications among classmates, as well as between students and lecturers. It was also found to enhance students' engagement with their course.

## **2.2 Online Marketing Communication (OMC)**

### **2.2.1 Overview of Integrated Marketing Communication (IMC)**

The concept of integrated marketing communication (IMC) has gained much attention from both academics and practitioners over the last two decades. Early studies reported that its wide adoption was largely because practitioners found that it helped them reduce communication costs and increased the effectiveness of their communication activities (Noveli, 1989; Rose & Miller, 1994). Subsequent research largely debated the definition of IMC and its theoretical support (e.g., McGrath, 2005; Schultz & Kitchen, 1997; Spotts, Lambert, & Joyce, 1998). A more recent stream of studies has dealt with the application of the IMC concept and its contribution to brand equity (e.g., Madhavaram, Badrinarayanan, & McDonald, 2005; Ratnatunga & Ewing, 2005; T. M. Smith, Gopalakrishna, & Chatterjee, 2006).

All definitions of IMC include five major propositions (Shimp, 2000). First, IMC programmes aim to affect consumer behaviour. Second, the consumer's point of view, not that of the brand communicator, should be used to develop IMC programmes. Third, all communication vehicles and all points of contact should be considered as potential message delivery channels. Fourth, consistency should be promoted across brand

communications. Finally, the need to develop an ongoing relationship with consumers should be emphasised.

Although IMC literature has greatly increased in recent years, there are various inconsistencies among scholars relating to the classification of IMC. Jansen and Jepsen (2006) reviewed seven well-known IMC textbooks and found that there were five common IMC tools presented in almost all of them. These are (1) advertising, (2) public relations (marketing), (3) sales promotion, (4) personal selling, and (5) direct marketing (communications).

### **2.2.2 Initiation of OMC**

The classification problem intensifies when the IMC concept is applied in an online context. Several textbooks have treated online IMC as the sub discipline of IMC using various labels, such as e-communications (Kitchen & De Pelsmacker, 2004), Internet advertising (Arnes, Weigold, & Arnes, 2008), and interactive/ Internet marketing (Belch & Belch, 2004). Most of these textbooks exhibit vast differences in terms of what are considered to be online IMC tools.

Jensen and Jepsen (2006) first proposed the concept of online marketing communication (OMC). They argued that OMC is not just a mere transferral of traditional marketing communications (e.g., advertising, public relations, and so forth) into a new context. Rather, it has several distinctive characteristics and they should be considered as a new, separate, discipline or disciplines. They identified five distinctive characteristics that distinguish OMC from traditional offline marketing communications: (1) freedom from temporal and spatial restrictions, (2) many-to-many communication, (3) interactivity, (4) hyper-textuality, and (5) personalisation. First, freedom from temporal and spatial restrictions refers to the fact that, unlike traditional communications, consumers can access information regarding OMC wherever and whenever they want to as long as they have access to the Internet. Second, most traditional marketing communications are either one-to-one or one-to-many communications. In terms of OMC, consumers can also be involved in the distribution of marketing communications especially via a medium like SNS. Third, the nature of the Internet enhances the interactivity of communications. Fourth, hyper-

textuality refers to the dynamic nature of communications on the Internet. Compared with traditional offline communications, OMC can be managed and updated by communicators more frequently at a much lower cost. Finally, the interactivity and hyper-texuality nature of the online medium make personalised communications possible at a sustainable cost. These five characteristics, combined with the fact that on the Internet all offline communications can be presented in a single medium, support the notion that OMC should be treated as a new, separate, discipline.

### **2.2.3 Definition of OMC**

To date, there is no generally accepted definition of OMC, or even IMC. This concern has been expressed frequently in the literature (e.g., Kliatchko, 2005; McGrath, 2005; Schultz & Kitchen, 1997) and many researchers have tried to refine the definition of IMC (e.g., Duncan & Caywood, 1996; Kliatchko, 2005, 2008; Schultz & Schultz, 1998). Nevertheless, the present study adopts the definition of IMC proposed by the American Association of Advertising Agencies (4As) in 1989 since it is the most widely cited definition (Duncan & Caywood, 1996) and it fits relatively well with the context of the present study. The American Association of Advertising Agencies defined IMC as “a concept of marketing communications planning that recognizes the added value of a comprehensive plan that evaluates the strategic roles of a variety of communications disciplines (for example, general advertising, direct response, sales promotion, and public relations) and combines these disciplines to provide clarity, consistency, and maximum communications impact” (Schultz, 1993, p. 17). Going by the 4A’s definition of IMC, OMC can be defined as “strategic business processes that synthesise a variety of communication disciplines including advertising, public relations, sales promotion, and public relationship communications to provide clarity, consistency, and maximum communication impact to all stakeholders in the online context”.

### **2.2.4 Components of OMC**

According to Jensen and Jepsen (2006), OMC consists of four major components: (1) online advertising, (2) online marketing public relations (online MPR), (3) online sales promotion, and (4) online relationship communications. The term online MPR was chosen instead of online public relations as originally proposed by Jensen and Jepsen

(2006) in response to the concern expressed by some scholars that the boundary of public relations expands beyond that of marketing (Kitchen & De Pelsmacker, 2004). The first three components are similar to their offline counterparts except that they are applied to the online context. The fourth component, namely online relationship communications, is basically the combination of offline direct marketing and personal selling. The reason behind this is that the personal selling concept, when applied to the online context, loses its distinctive, “face-to-face,” characteristic. Moreover, its scope is greater than mere “selling”. As a result, it shares more common characteristics with direct marketing and thus they are combined to create a new component.

## **2.2.5 SNS as an OMC Tool**

Several features available on SNS can be categorised according to the four components mentioned above. For instance, on Facebook, the photos and videos sharing feature allows brands to publish their print ads and TV commercials on their brand profile pages. As for online MPR, brands can also announce their upcoming events using event features which allow consumers to get the information regarding the particular event and invite friends on their social network to attend the event. Many tools are also available for online sales promotion purposes, such as contests and coupons. Finally, features such as online discussion forums can be used as online relationship communication vehicles.

Although the number of research examining the use of SNS as an OMC tool is very limited, several studies have pointed out its potential. Jansen, et al. (2009) proved that SNS, such as Twitter, was very effective in generating electronic word of mouth. Phillips, McFadden, and Sullins (2010) conducted a case study with several local farms in the United States and found that the use of SNS, such as Facebook, MySpace, and Twitter, could increase the number of visitors to the farms’ Web sites. Nearly 20 percent of the traffic to the Web site of one particular farm was directed from SNS. Moreover, approximately four percent of attendants of the agritourism events held by the farms reported that they heard about these events on SNS.

Mabry and Porter (2010) suggested that firms could enhance the effectiveness of their brand’s promotional campaigns by using SNS alongside official Web sites. Actual

usage of SNS as an OMC tool by firms for branding was somewhat limited. A study by Kuhn and Burns (2008) showed that on MySpace, based on the content analysis of brand profiles, 40 percent of brand profile pages consisted of at least one sort of online advertisement, 36 percent employed an online relationship communication function, only around one-third provided some sort of online sales promotion, and only 14 percent carried out an online MPR function. Zhang, et al. (2010) found a similar figure of online sales promotion usage on Facebook.

## 2.3 Research Gap in SNS Literature

The rise of SNS imposes both challenges and opportunities on businesses. boyd and Ellison (2008) noted that while some businesses regarded SNS as a fruitful opportunity and invested their resources in it, others regarded it as something that would distract their employees from work or would lead to the leak of their sensitive information. However, those who successfully make the most out of their consumer network and SNS' referral system would be able to gain competitive advantages (Kuhn & Burns, 2008). Unlike any other marketing tool, SNS provides firms with the ability to communicate their marketing messages to their target customers and, at the same time, obtain valuable insights and feedback in a low cost and timely fashion. Added to that, well-crafted messages are likely to be passed on through consumers' networks.

Despite the aforementioned potential, little attention has been paid by academics to examine the potentially positive uses of SNS for marketing purposes. Only a few scholars have discussed the potential benefits of adopting a SNS into a firm's marketing practices or provided a basic guideline regarding how a SNS could be used as a marketing tool (e.g., Jansen, et al., 2009; Mabry & Porter, 2010; T. Smith, 2009). Among these, only a handful of studies have evaluated firms' actual usage of the tools available on SNS (i.e., Jansen, et al., 2009; Kuhn & Burns, 2008; Zhang, et al., 2010).

Jansen, et al. (2009) provided a content analysis of 150 thousand micro-blog postings, which are known as tweets, on Twitter. They found that one-fifth of the tweets that contained a brand name also offered opinions about that particular brand. Of those, about a half reflected positive expressions. They concluded that Twitter in particular, and SNS in general, could be a useful tool for generating electronic word of mouth.

Zhang, et al. (2010) conducted a content analysis of 89 brand profile pages on Facebook to examine the use of brand entertainment contents on the site. They reported that the use of brand entertainment varied across industries. Specifically, brand entertainment was used the most by consumer goods marketers and retailers. Moreover, product brands employed brand entertainment contents significantly more than service brands. Furthermore, they found that downloadable contents, videos, and games were used more intensively than contests, sweepstakes, and festivals. Kuhn and Burns (2008) selected a sample of 50 brands from various industries and analysed their MySpace profile elements to evaluate to what extent MySpace had been used as a marketing vehicle. The results revealed that, overall, brands used most of the custom features provided by MySpace and integrated their profile pages with other online marketing platforms, such as displaying a link to their brand Web site. However, their practices were still far from perfect. For instance, a survey tool which is valuable for getting customer insight was used by only six percent of the brands. This indicates that there is still much more room for businesses to improve their practices.

Given the scarcity of research on this matter, this study aims to contribute to the SNS literature by adopting the OMC concept to conduct a content analysis of brand profiles on Facebook. The findings of this study will provide an insight into businesses' use of brand profile pages as an online marketing communication venue.

## **2.4 Chapter Summary**

This chapter discussed relevant literature on the areas of SNS and OMC. The first section firstly discussed the definition and characteristics of typical SNS. Then, a brief history of SNS was provided followed by some information about the two most popular SNS, MySpace and Facebook. After that, an exhaustive review of past SNS research was presented. The second section offered a brief overview of the IMC literature, the establishment of OMC as a separate discipline, the definition of OMC followed by its components, and the application of SNS as an OMC tool. The third part of this chapter discussed the gap in the SNS literature. Given the scarcity of research on brands' use of SNS, this study aims to fulfil the gap in the literature by investigating how brands employ SNS as their OMC tool. Regarding this matter, several research questions are

proposed. They will be discussed in the next chapter alongside the research methodology.

# **Chapter 3**

## **Research Methodology**

This chapter first presents content analysis as a research method for the present study. Its definition, advantages, and limitations are discussed thereafter. Second, based on a gap in the SNS literature identified in the previous chapter, several research questions are proposed. The third part of this chapter provides information regarding the unitisation process including the selection of sampling units, coding units, and context units. Fourth, the development of the coding schedule and coding manual are discussed. Fifth, the coder selection and coder training processes are discussed. Sixth, coding procedures are explained. Finally, issues regarding the inter-coder reliability are discussed.

### **3.1 Content Analysis as a Research Method**

Content analysis has been used widely in the area of mass media communication (Bryman & Bell, 2007). Its history dates back to the 17<sup>th</sup> century when the Church was intensively investigating nonreligious matters in print materials. After World War II, it gained widespread adoption in various disciplines, including politics, psychology, anthropology, and so forth (Krippendorff, 2004). Since the advent of the Internet, the application of content analysis in the computer-mediated communication context has evidence in the literature. The advancement of the Internet in particular and information technology in general, imposes both opportunities and challenges on content analysts (Weare & Lin, 2000). On the one hand, the Internet provides content analysts with access to an unimaginable amount of data. On the other hand, it also imposes several challenges on content analysts since some procedures might not be effective online as they were in the offline context. For instance, according to Bates and Lu (1997, p. 332), due to the enormous size of the data available on the Internet combined with its dynamic nature, “selecting a true random sample may be next to impossible”.

Krippendorff (2004, p. xvii) described content analysis as “an empirically grounded method, exploratory in process, and predictive or inferential in intent”. Similarly, Holsti (1969) discussed three primary objectives of content analysis which are (1) to describe the characteristics and meanings of the communication, (2) to identify the antecedents of the communication, and (3) to identify the effects of the communication. The present study is mainly exploratory in nature. Its purpose is to investigate and describe how brand profile pages on Facebook are used by businesses as their OMC tool. This is similar to the first objective put forth by Holsti (1969), therefore content analysis appears to be the most suitable method for use. In addition, content analysis has also been used in previous studies investigating similar issues (e.g., Kuhn & Burns, 2008; Perry & Bodkin, 2000; Zhang, et al., 2010).

### **3.1.1 Definition of Content Analysis**

Various definitions of content analysis can be identified in the literature. The most widely cited definition is that of Berelson (1952). Berelson (1952, p. 18) defined content analysis as “a research technique for the objective, systematic and quantitative description of the manifest content of communication”. Kassarjian (1977) reviewed various definitions of content analysis proposed from 1952 to 1969 and concluded that all of them shared these three main points. First, content analysis needs to be objective. In other words, no matter who analyses the same body of text, if identical procedures are used, the results should be the same. Second, content analysis needs to be systematic. This implies that every stage of content analysis should be performed in a systematic manner according to explicit rules or guidelines. Finally, content analysis needs to be quantitative so that statistical methods can be applied. Krippendorff (2004) however, did not agree that content analysis needs to be quantitative, as suggested by Berelson and others. He pointed out that qualitative content analysis has proven to be effective in various disciplines, such as psychology and computer-mediated communication. In fact, the act of reading the content itself is qualitative in nature. Krippendorff also disagreed with Berelson’s phrase “manifest content of the communication” in his definition of content analysis. He argued that the term “manifest” signifies that content is lying within the message waiting to be described. This overlooks the fact that content analysts might interpret the message differently.

Based on the above discussion, the definition employed in this study is that of Krippendorff (2004, p. 18) which posited that, “content analysis is a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use.” The phrase “or other meaningful matter” in parentheses implies that not only texts but art, images, signs and so forth can also be used for the analysis.

### **3.1.2 Advantages and Limitations of Content Analysis**

Scholars have expressed several advantages of content analysis. Krippendorff (2004), for example, identified four primary advantages. First and foremost, unlike other research methods, content analysis allows researchers to collect data in an unobtrusive manner. Therefore, response biases can be avoided. Second, unstructured data can be employed in content analysis. Surveys or other quantitative research methods typically provide respondents with a set of choices to generate data. This hinders the variation of responses. Third, content analysis is sensitive to its context. Finally, it can be used with large volumes of data.

Kolbe and Burnett (1991) further noted that content analysis is a good mean to cross-validate the results from other research methods to enhance the validity. Moreover, with its objective and systematic nature, it allows the study to be validated and replicated by subsequent research. Thus, longitudinal research can be carried out with relative ease (Bryman & Bell, 2007).

Bryman and Bell (2007), however, pointed out several limitations of content analysis. First, the quality of content analysis largely depends on the quality of the text being analysed. Second, some interpretations of the text by coders, especially when the purpose of the analysis is to investigate latent content rather than manifest content, is inevitable. This raises doubt about the reliability of those interpretations. Third, when, content analysis is employed alone, it is rather difficult to answer the “why” questions. Finally, the focus of content analysis is frequently diverted to what is measurable rather than what is important.

Since the objective of this study is to evaluate how brand profile pages on Facebook are used by various businesses, content analysis appears to be the most suitable research method since the findings will reflect their actual practices. Moreover, the replicable nature of content analysis allows future research to validate or replicate this study. Furthermore, although content analysis research might suffer from misinterpretation of the text, the present study requires only a minimum level of interpretation by coders.

## 3.2 Research Questions

In her comprehensive guideline for conducting a content analysis research McMillan (2000) stated that defining the research questions is the first step. This process is crucial to the quality of the study. If research questions are poorly formulated, there is a risk of flaws in subsequent processes. For example, irrelevant texts might be included in the sample (Bryman & Bell, 2007).

Krippendorff (2004) outlined several criteria for generating good research questions. First, they need to be answerable. The act of analysing the text should be able to provide an answer to well-formulated questions. Second, they should have more than one possible answer. Third, they should concern inaccessible phenomena. Finally, good research questions could be validated, at least in principle.

Given the gap in SNS literature identified in Chapter 2, this study aims to explore the extent to which SNS profile pages are used by various businesses as OMC tool for their brands. The study is largely descriptive in nature which is relatively common in content analysis research on computer-mediated communication. It has been reported that among 19 influential content analysis based studies conducted from 1991 to 2000, 18 were either partially or entirely descriptive (Rourke, Anderson, Garrison, & Archer, 2001). The present study is relatively similar to that of Kuhn and Burns (2008) which examined the usage of brand profiles on MySpace. However, it differs from previous research in three important aspects. First, this study proposes to investigate brands' practices on Facebook rather than MySpace. Second, this study proposes to incorporate the OMC typology put forth by Jensen and Jepsen (2006). It will be used as a theoretical background to categorise communication tools available on Facebook in order to better

evaluate how each type of tool has been used by brands. Third, since many studies have recognised the contribution of IMC to brand equity (e.g., Madhavaram, et al., 2005; Ratnatunga & Ewing, 2005; T. M. Smith, et al., 2006), this study aims to investigate the association between the use of brand profile pages and brand value. There are two reasons why Facebook was chosen as the target of investigation. First, it is more popular than MySpace, as previously mentioned. Second, since past research has already examined brand practices on MySpace, the evaluation of brand practices on Facebook could reveal differences in the use of brand profile pages across these two sites.

According to the above discussion, the research questions (RQs) of this study are as follows:

- RQ1: How is each tool available on brand profile pages used by businesses for the purpose of online marketing communication (OMC), including online advertising, online marketing public relations (MPR), online sales promotion, and online relationship communications? Are some tools being used more frequently than others?
- RQ2: Is there any difference in the businesses' use of brand profile pages among product and service brands? If so, what is (are) the difference(s)?
- RQ3: Is there any difference in the use of brand profile pages among brands of various businesses from different countries? If so, what is (are) the difference(s)?
- RQ4: Is there any difference in the use of brand profile pages among brands of various businesses from different industries? If so, what is (are) the difference(s)?
- RQ5: Is there any association in the use of tools on brand profile pages and brand value?

### **3.3 Unitisation**

Unitisation is basically a process carried out to define units that are analysed in the content analysis research. Each unit needs to be distinguishable from others and must not overlap (Krippendorff, 2004). For instance, in the case of counting, if units to be

counted are not distinct, it will not be possible for the outcome to make sense. There are three main units of analysis that needs to be defined, namely sampling units, recording units or coding units, and context units.

### 3.3.1 Sampling Units

Sampling units are “units that are distinguished for selective inclusion in an analysis” (Krippendorff, 2004, p. 98). In other words, sampling units are those units drawn from the defined population. An analysis of the entire population is usually inefficient, if not impossible. The sampling process reduces the data to a more manageable size. Ideally, the analysis of a representative sample should provide the same result as that of the population (Krippendorff, 2004). There are various methods that can be used for the sampling purpose, such as random sampling, stratified sampling, snowball sampling, and convenient sampling, to name a few.

In this study, the population is all of the brand profile pages on Facebook. Unfortunately, an exhaustive and complete list of brand profile pages on Facebook is not available anywhere. Moreover, many new brand profiles are created every day. Thus, the selection of a random sample is extremely difficult, if not impossible. This sampling difficulty has also been reported by several scholars (e.g., Bates & Lu, 1997; Cho & Khang, 2006; Kolbe & Burnett, 1991). Cho and Khang (2006) reported that more than 75 percent of research in the Internet-related area used non-probability sampling methods. In the same vein, Kolbe and Burnett (1991) found that around 80 percent of content analysis research from 28 journals used convenient sampling. Given this limitation, a non-probability sampling technique, namely convenient sampling, is used to determine a list of brands under study.

Sampling units in the present study consist of the top ten global (Interbrand, 2009b), Australian (Interbrand, 2009a), Japanese (Interbrand, 2009d), Spanish (Interbrand, 2009e), Swiss (Interbrand, 2009c), and Taiwanese brands (Interbrand, 2009f) according to Interbrand’s 2009 ranking. The social nature of Facebook in particular, and social networking sites in general, provides far more benefits to consumer brands than to B2B brands. Therefore, only consumer brands will be chosen in this study. The final sample

consists of 60 profile pages of 60 brands from 22 industries. 37 brands are categorised as product brands while 23 brands are identified as service brands. The complete list of sampling units is presented in Table 3.1. Notably, Toyota is presented twice as both a global brand and a Japanese brand according to Interbrand's ranking.

**Table 3.1 A list of sampling units**

<b>Brand</b>	<b>Country</b>	<b>Industry</b>	<b>Brand value (Million USD)</b>	<b>Type</b>
Telstra	Australia	Telecommunication	8,629	Service
Commonwealth Bank	Australia	Banking & Financial services	6,316	Service
NAB	Australia	Banking & Financial services	4,537	Service
Westpac	Australia	Banking & Financial services	4,270	Service
Woolworths	Australia	Retail	4,092	Service
ANZ	Australia	Banking & Financial services	2,758	Service
Billabong	Australia	Apparel	1,957	Product
St. George	Australia	Banking & Financial services	1,690	Service
Harvey Norman	Australia	Retail	1,157	Service
Australian Post	Australia	Postal & Logistics	801	Service
Coca-Cola	Global	Food & Beverage	68,734	Product
Microsoft	Global	Computer software	56,647	Product
Nokia	Global	Consumer electronics	34,864	Product
McDonald's	Global	Restaurants	32,275	Service
Google	Global	Internet services	31,980	Service
Toyota	Global	Automotive	31,330	Product
Disney	Global	Media	38,447	Product
Hewlett-Packard	Global	Computer hardware	24,096	Product

Mercedes-Benz	Global	Automotive	23,837	Product
Gillette	Global	Personal care	22,841	Product
Toyota	Japan	Automotive	31,330	Product
Honda	Japan	Automotive	17,673	Product
Sony	Japan	Consumer electronics	12,438	Product
Canon	Japan	Computer hardware	10,484	Product
Nintendo	Japan	Consumer electronics	9,182	Product
Panasonic	Japan	Consumer electronics	4,287	Product
Lexus	Japan	Automotive	3,233	Product
Nissan	Japan	Automotive	2,901	Product
Toshiba	Japan	Diversified	2,404	Product
Sharp	Japan	Consumer electronics	2,344	Product
Movistar	Spain	Telecommunication	16,660	Service
BBVA	Spain	Banking & Financial services	9,759	Service
Telefonica	Spain	Telecommunication	8,068	Service
El Corte Ingles	Spain	Retail	2,078	Service
La Caixa	Spain	Banking & Financial services	1,925	Service
Banco Popular	Spain	Banking & Financial services	1,100	Service
Mango	Spain	Apparel	1,047	Product
Iberdosa	Spain	Energy	1,015	Service
Repsol	Spain	Energy	976	Service
Mahou	Spain	Alcohol	909	Product
Nescafé	Switzerland	Food & Beverage	15,520	Product
UBS	Switzerland	Banking & Financial services	7,197	Service
Nestlé	Switzerland	Food & Beverage	6,638	Product

Credit Suisse	Switzerland	Banking & Financial services	6,488	Service
Zurich	Switzerland	Banking & Financial services	6,386	Service
Rolex	Switzerland	Luxury	5,979	Product
Swisscom	Switzerland	Telecommunication	4,531	Service
Omega	Switzerland	Luxury	2,777	Product
Davidoff	Switzerland	Tobacco	1,783	Product
Lindt	Switzerland	Food & Beverage	1,771	Product
Acer	Taiwan	Consumer electronics	1,241	Product
Trend Micro	Taiwan	Computer software	1,235	Product
Asus	Taiwan	Consumer electronics	1,226	Product
HTC	Taiwan	Consumer electronics	1,203	Product
Master Kong	Taiwan	Food & Beverage	916	Product
Want Want	Taiwan	Food & beverage	421	Product
Maxxis	Taiwan	Tire & Rubber	345	Product
Giant	Taiwan	Bicycles	262	Product
Zyxel	Taiwan	Network hardware	222	Product
Transcend	Taiwan	Computer hardware	212	Product

There are several reasons to justify this choice of sampling. First, Interbrand's ranking has been well-accepted and is used widely in the literature (e.g., Maynard & Tian, 2004; Murphy, Raffa, & Mizerski, 2003). Second, the purpose of this study is to evaluate how brand profile pages are being used as an online branding tool. Since inferior brands are less likely to use such a tool, the sample of top brands seems to better suit the objective of the paper. Third, the sample consists of brands from various countries and industries providing an opportunity to examine the differences between countries and industries. Finally, there are six country clusters based on cultural similarities. These are the Anglo cluster, the Nordic cluster, the German cluster, the Latin cluster, the Asian cluster, and Japan (Robbins & Stylianou, 2003). Top brands selected as samples in this study

represent five out of these six clusters, with the exception of the Nordic cluster. It is unfortunate that data for a country representing the Nordic cluster is not available in our chosen database (Interbrand's ranking studies in 2009). This database consists of brands from six countries apart from the global brands, namely Australia, Japan, Mexico, Spain, Switzerland, and Taiwan. Nevertheless, despite the limitation of data availability for the Nordic cluster, this set of samples is the most comprehensive possible, consisting of brands across cultural clusters which were evaluated by the same source in the same period of time using the same criteria.

### **3.3.2 Coding Units**

Coding units, also known as recording units, are “units that are distinguished for separate description, transcription, recoding, or coding” (Krippendorff, 2004, p. 99). Coding units are essentially smaller elements within sampling units which are separated from each other for the purpose of categorisation and description in subsequent analysis. The primary need for context units is that sampling units are usually too large or too complex to be described. For instance, coding an entire Web site would be time- and labour-consuming, if not impossible (Weare & Lin, 2000). In other words, the reasoning is similar to that of defining sampling units which is to make data more manageable. Ideally, coding units should be as small as possible while they are still meaningful for the analysis (Krippendorff, 2004). For example, coding units for content analysis of a book could be chapters, pages, paragraphs, sentences, words, or even characters, as long as they contain information needed to answer the research questions.

There is no standard list of coding units for social networking sites, and Web sites in general. The majority of the studies on related topics used structural features of the site as their coding units, although there are some differences depending on the goal of the research (McMillan, 2000). The same applies to this study insofar as structural features of brand profile pages on Facebook are used as coding units. These coding units are typically identified by (1) reviewing relevant literature, and (2) browsing through brand profile pages that are not included in the main study (Dou & Krishnamurthy, 2007; Kuhn & Burns, 2008).

As a result, an exhaustive list of coding units is created. A total of 58 coding units are identified and are categorised according to the four components of OMC mentioned in the previous chapter (see Appendix 1). They will be discussed further in detail in the coding schedule and coding manual section.

### **3.3.3 Context Units**

Context units are “units of textual matter that set limits on the information to be considered in the description of recording units” (Krippendorff, 2004, p. 101). Context units are those components surrounding recording units. They help content analysts to make sense out of recording units. McMillan (2000) found that the most common context unit employed in online content analysis research was the Web site, following by the home page. It has been recommended that context units should be defined as large in order to retain all relevant meaning and, at the same time, be as small as feasible (Krippendorff, 2004).

The context units are the official brand profile pages on Facebook. It is worth noting that many brand profiles on Facebook are not created by marketers. Therefore, several steps are taken to ensure that all brand profile pages included in the analysis are official ones. First, the Web site of each brand is viewed to find if there is a link to the brand profile page. If no link is found, the next step is the use of a Facebook vanity URL, such as <http://www.facebook.com/cocacola>. A Facebook vanity URL is the unique Facebook address registered by users in order to enable others to locate their profiles more easily. Since this feature’s first introduction in 2009, trademark owners have had the right to register their trademarks as their vanity URL (Wakiyama & Kagan, 2009). Thus, this provides a good means to evaluate whether the particular profile page is legitimate or not. If the particular vanity URL has not been registered, the final step is to use subjective judgment. By evaluating the information available on the profile page, such as the administrators of the page and the number of fans the profile page has, it can be determined whether the particular profile page is legitimate or not.

### **3.4 Coding Schedule and Coding Manual**

The Coding schedule, also known as the coding sheet, is basically a form into which all the data is coded. The coding manual, or content analysis dictionary, consists of rules and instructions which are developed to help coders classify the text into predefined categories. In other words, it informs coders as to how the data should be coded into the coding schedule. Bryman and Bell (2007) provided a useful example of the coding schedule and coding manual. Dou and Krishnamurthy's (2007) study offered a comprehensive guideline on how to develop a coding schedule in the online context. In their content analysis of brand Web sites, they started by reviewing the relevant literature. This gave them a preliminary list of coding units to be included in their coding schedule. After that, they consulted expert scholars in the field and modified their coding schedule accordingly. Finally, the coding schedule was tested by one of the researchers and another student who was unaware of the research objective. The testing process was done by using the coding schedule to code several Web sites which were not included in the main study. A similar approach has been adopted in several research on related issues (e.g., Kuhn & Burns, 2008; Zhang, et al., 2010).

Krippendorff (2004) and Bryman and Bell (2007) pointed out some aspects that should be emphasised when developing a coding schedule in order to minimise error. First, in some cases, a descriptive word can be used as a code instead of a number to reduce confusion. Second, codes which are applied across variables need to be consistent. For example, if “absence” is coded as “0” and “presence” is coded as “1”, this should be the case for all variables to avoid coding error. Third, the manner in which the coding process is done can influence the chance of error. For example, if the coding schedule is designed in such a way that the coder is required to circle one of the available choices as an act of coding, there is a chance that the coder might circle the area between two choices. Therefore, how the coding schedule is designed needs to be planned carefully. Finally, instructions need to be made clear to coders regarding how the coding process is going to be carried out. This recommendation signifies the importance of the coding manual.

Given the aforementioned guideline, the present study adopts several coding items from the study of Dou and Krishnamurthy (2007) and Kuhn and Burns (2008). Some

additional coding items are identified by browsing 20 brand profile pages on Facebook. Notably, these profile pages are not included in the main study. After consulting with an academic expert, some coding items are modified and some items are deleted. This process results in 58 coding items as mentioned above in the coding units section (see Appendix 1). These coding items are then categorised according to the four components of OMC. The coding schedule is then used to code another set of 10 brand profile pages as a preliminary test. The result is regarded as satisfactory. The final coding schedule is presented in Appendix 1. Afterwards, the coding manual is developed accordingly. Notably, the coding manual is then slightly modified in the process of coder training which will be discussed in the following section. The final coding manual is presented in Appendix 2.

### **3.5 Coder Selection and Training**

Two or more coders are required in order to demonstrate the reliability of the data. Two key processes involving coders are coder selection and coder training. The importance of coder selection is sometimes overlooked by content analysts. McMillan (2000) reported that around 42 percent of online content analysis based studies did not report any information regarding coders. No matter how easy the coding task is, coders need to be able to carry it out in a consistent manner. This requires a certain level of cognitive ability, especially when the amount of data is large. Moreover, it is recommended that the selected coder should have appropriate background. In other words, coders should have some familiarity with the phenomena in order to carry out the task effectively (Krippendorff, 2004).

With this suggestion in mind, a doctoral student in the marketing discipline is employed as a second coder, alongside the researcher. The second coder is ensured to have the fundamental requirements mentioned above. Moreover, he is familiar with Facebook since he has been a user of the site for a couple of years.

In the same vein, information about coder training is rarely reported. McMillan (2000) found that more than 60 percent of online content analysis studies did not provide any information regarding coder training. Even though the coding manual contains all relevant instructions, it is better to provide some training to the coder in order to

familiarise them with the task. Moreover, it also offers an opportunity for content analysts to refine their coding schedule as well as coding manual (Krippendorff, 2004).

In the present study, the second coder attends two training sessions. Each session lasts approximately four hours. In each session, the second coder is required to code 10 brand profile pages on Facebook, which are not included in the main study, according to the coding manual and operational definitions of the coding units (Kolbe & Burnett, 1991; McMillan, 2000). After the coding task is finished, the second coder has a discussion with the researcher to clarify any doubt. Some additional instructions are then added to the coding schedule.

### **3.6 Coding Procedures**

Since the information on Facebook in particular, and on the Internet in general, tends to change continually, the data collection and data coding phases need to be done in a short time frame. McMillan (2000) found that most online content analysis studies collected and coded all the data within one to two months (McMillan, 2000). Another option available for online content analysis is to download all the content and store it in the hard drive. However, this depends on the size of the sample as well since downloading all the content requires a lot of memory (Weare & Lin, 2000).

In the present study, two coders independently coded all 60 brand profile pages on Facebook from August 15<sup>th</sup> to 26<sup>th</sup> August, 2010. Five identical brand profile pages were coded simultaneously by two coders each day. Two coders accessed brand profiles on Facebook by using their own Facebook accounts. As suggested by previous research (Weare & Lin, 2000), the Internet connection, type of monitor, type of browser, and type of computer used by the two coders were almost identical in order to ensure that the manner in which the information is displayed to the two coders is the same.

### **3.7 Inter-coder Reliability**

Reliability is undoubtedly crucial to content analysis research. It ensures that data is generated without bias and means the same thing to all viewers (Krippendorff, 2004). The analysis of inter-coder reliability can clarify whether the data is reliable.

Unfortunately, only half of the online content analysis research has provided information regarding inter-coder reliability (McMillan, 2000). Moreover, some studies have reported inter-coder reliability without indicating which method has been used (Kolbe & Burnett, 1991). There are various methods which can be used to calculate inter-coder reliability. Among these methods, percentage of agreement (Kassarjian, 1977; Kolbe & Burnett, 1991), Holsti's coefficient of reliability (Rourke, et al., 2001), Scott's Pi (McMillan, 2000), and Krippendorff's alpha (Krippendorff, 2004) have been employed most frequently.

The present study chooses to employ Holsti's coefficient of reliability for several reasons. First, Holsti's coefficient of reliability is a method that has been used widely in the literature investigating similar topics (McMillan, 2000; Rourke, et al., 2001). Second, Scott's Pi, Cohen's Kappa, and other similar methods can only be employed to calculate the inter-coder reliability of nominal data. Since data in the present research consists of nominal and ratio data, the aforementioned methods are excluded. Finally, Krippendorff's alpha can be used to calculate the inter-coder reliability of any kind of data and it is arguably superior to Holsti's coefficient of reliability since it accounts for agreement happening by chance (Krippendorff, 2004). However, it is excluded because of one of its characteristics. When Krippendorff's alpha is used to calculate inter-coder reliability for the data which lacks variation, such as all coders achieving perfect agreement and thus only one value is coded for the particular variable, the value of Krippendorff's alpha would be either 0 or  $-\infty$  (Krippendorff, 2004). The coding task in this research is relatively simple, to code whether the particular item is present or absent or to count the number of items presented. Thus, the chance of perfect agreement is relatively high. Therefore, Holsti's coefficient of agreement is chosen. The formula of Holsti's coefficient of reliability (Holsti, 1969) is as follows:

$$\text{Coefficient of reliability} = \frac{2m}{n_1 + n_2}$$

Where:  $m$  = total number of coding decisions which two coders agree upon

$n_1$  = number of coding decisions made by the first coder

$n_2$  = number of coding decisions made by the second coder

The value of Holsti's coefficient of reliability can vary from 0 to 1. In the present study, the lowest value is 0.22 for "comments" and the highest is 1 for several items. The complete list of the coefficient of reliability for each item is presented in Table 3.2.

**Table 3.2 Coefficient of reliability for each item**

<b>Category</b>	<b>Item</b>	<b>Coefficient of Reliability</b>
<b>Basic information</b>	Presence	1.00
	Logo	1.00
	Overview	1.00
	Founded	1.00
	Headquarters	1.00
	Mission	1.00
	Admin	1.00
	Fans	1.00
<b>Links and integration</b>	Website	0.97
	Page	0.92
	Blog	0.97
	RSS	0.97
	Twitter	0.92
	MySpace	1.00
	YouTube	0.89
	Flickr	1.00
	OtherLinks	0.94
	PrintAds	0.92
<b>Online advertising</b>	TVC	0.92
	Newsletters	1.00
<b>Online MPR</b>	Career	1.00
	Photos	1.00
	PhotosNumber	0.81
	BPhotos	0.81
	FPhotos	0.92
	Videos	1.00
	VideosNumber	0.86
	BVideos	0.86
	FVideos	0.97
	Events	0.92
	EventsNumber	0.81
	Sponsorships	0.94
<b>Online sales promotions</b>	Coupons	1.00

	Contests	0.97
	OtherPromos	0.97
<b>Online relationship communications</b>	Posts	1.00
	Likes	0.25
	Comments	0.22
	Polls	1.00
	PollsNumber	1.00
	Participants	0.89
	Discussions	1.00
	Topics	0.97
	BTops	0.92
	FTopics	0.89
	Replies	0.78
	BReplies	0.86
	FReplies	0.72
	Applications	0.94
	ApplicationsNo	0.92
	Wallpapers	1.00
	Screensavers	1.00
	Softwares	1.00
	OtherDL	1.00
	OnlineStore	1.00
	DealerInfo	1.00
	PricingInfo	1.00
	Catalogue	1.00

There are three sources of differences in the coders' data. First, for some items, such as "likes" and "comments" on brand posts, the number shown on two coders' display are, sometimes, slightly different. For example, for one coder, one brand post on its profile page shows that 102 people like the post and 50 people comment on the post. For another coder, it is displayed that 103 people like the post and 51 people comment on the post. This happens even though both coders access the profile page simultaneously. This problem has never been reported in any study as far as the researcher's knowledge is concerned. It appears to be an error on the Facebook system. This results in a very low level of coefficient of reliability for these two items which is 0.25 for "likes" and 0.22 for "comments". Consequently, these two items are omitted from further analysis. The value of the coefficient of reliability for other items ranges from 0.72 to 1. The second source of differences derives from the disagreement in subjective judgment

among coders. The third source of differences is simply typos or other mistakes made by one of the two coders. All differences are resolved via discussion among coders. When agreement cannot be reached, two coders consult with the academic expert.

## **3.8 Chapter Summary**

This chapter provided a brief discussion on content analysis and its employment as a research method for this study. Several research questions were proposed with the aim of fulfilling the gap in the SNS literature as identified in Chapter 2. Sampling units, coding units, and context units were identified and discussed. Afterwards, the coding schedule and coding manual were carefully developed according to previous research. Coding procedures were explained and the issue of inter-coder reliability was discussed. This chapter also highlighted several areas which were underreported in some of the previous studies, such as coder training and inter-coder reliability. Some limitations in coding processes were also reported and discussed in this chapter. The following chapter will report the analyses of data and their results.

# **Chapter 4**

## **Data Analyses and Results**

This chapter presents the analyses and discusses their findings. First, frequency tables are used to describe brands' presence on Facebook and how businesses use profile pages as a tool for providing consumers with information and integrating with other online platforms, and a platform for online advertising, online MPR, online sales promotions, and online relationship communications. Second, a t-test is conducted to examine differences between product brands and service brands. Third, ANOVA is used to investigate differences across countries and industries. Finally, the Pearson product-moment correlation coefficient is employed to find if there is any association between brand value and businesses' use of profile pages.

### **4.1 Brand presence on Facebook**

As presented in Table 4.1, out of 60 brands, only 36 brands (60%) had profile pages on Facebook at the time this study was conducted. The difference in brand presence on Facebook between product brands and service brands was significant ( $\text{Chi-square} = 6.769$ ,  $\text{df} = 1$ ,  $p = 0.009$ ). Specifically, 27 product brands maintained their presence on Facebook while only 9 service brands did so. The difference in brand presence on Facebook across countries was also found to be significant ( $\text{Chi-square} = 12.5$ ,  $\text{df} = 5$ ,  $p = 0.029$ ). All 10 global brands had profile pages on Facebook. In contrast, only 3 out of 10 Spanish brands created profile pages on Facebook. Similarly, the difference in brand presence across industries was significant ( $\text{Chi-square} = 33.643$ ,  $\text{df} = 21$ ,  $p = 0.04$ ). Brands that had profile pages tended to come from automotive, consumer electronics, and food and beverage industries. Brand profile pages from these three industries accounted for 44.44 percent of all pages. A complete list of the 36 brands that had profile pages, as well as a Facebook vanity URL, can be found in Appendix 3. 24 brands that did not have brand profile pages were then excluded from further analysis.

**Table 4.1 Brand Presence on Facebook**

	<b>Frequency (n = 60)</b>	<b>Percent (n = 100%)</b>
<b>Overall</b>		
Presence	36	60
Absence	24	40
Total	60	100
<b>Brand presence by type</b>		
Product	27	45
Service	9	15
Total	36	60
<b>Brand presence by country</b>		
Australia	4	6.7
Global	10	16.7
Japan	6	10
Spain	3	5
Switzerland	6	10
Taiwan	7	11.7
Total	36	60
<b>Brand presence by industry</b>		
Alcohol	0	0
Apparel	2	3.3
Automotive	6	10
Banking & Financial services	1	1.7
Bicycles	1	1.7
Computer hardware	2	3.3
Computer software	2	3.3
Consumer electronics	6	10
Diversified	0	0

Energy	0	0
Food & Beverage	4	6.7
Internet services	1	1.7
Luxury	1	1.7
Media	1	1.7
Network hardware	1	1.7
Personal care	1	1.7
Postal & Logistics	1	1.7
Restaurant	1	1.7
Retail	2	3.3
Telecommunication	3	5
Tire & Rubber	0	0
Tobacco	0	0
Total	36	60

## 4.2 Basic Information

All 36 brands that had profile pages displayed their logos. A brief overview of the company was given on 29 profile pages. A company's mission statement and founding year were less frequently found on brand profiles. Only Microsoft and Swisscom displayed the location of their headquarters. Information about the brand page's administrator was found only on Coca-Cola's profile page (Table 4.2).

**Table 4.2 Basic Information on Brand Profile Pages**

	Frequency (n = 36)	Percent (n = 100%)
Logo	36	100
Company overview	29	80.6
Founded year	18	50
Headquarters location	2	5.6
Mission	25	69.4
Page administrator	1	2.8

Other basic information which could be found on the brand profile pages was the number of fans. The number of fans on each profile page can be regarded as an indicator of popularity. A Facebook user can become a fan of a particular brand profile page by clicking the “like” button (before a recent change it was called the “fan” button). As shown in Table 4.3, Coca-Cola had the largest number of fans at 10,828,403. On the other hand, the least popular profile page was that of Australia Post which had only 373 fans. On average, the number of fans on brand profile pages was 743,237.42 (s.d. = 2,045,542.049). Complete information about the number of fans on each profile page is presented in Appendix 4.

**Table 4.3 Brief Statistics of Number of Fans**

	<b>Number of fans</b>
Minimum	373
Maximum	10,828,403
Mean	743,237.42
Std. deviation	2,045,542.049

### **4.3 Links to and Integration with Other Platforms**

All of 36 brands had at least one link to their official Web site. 83.3 percent of the brands were also found to provide one or more links to other brand profile pages on Facebook. Typically, the links directed to profile pages that were owned by the same company. 21 brands displayed one or more links to their videos on YouTube, or integrated a YouTube platform into their profile. Twitter and RSS (Really Simple Syndication) integration was found on 17 and 11 profile pages respectively. Blog links were used less frequently. MySpace and Flickr were the least popular forms of links and integration. Both were used by only 2 brands (Table 4.4).

**Table 4.4 Links and Integration on Brand Profile Pages**

	<b>Frequency (n = 36)</b>	<b>Percent (n = 100%)</b>
Link to brand Web site	36	100
Link to other brand pages on Facebook	30	83.3
Blog	7	19.4
RSS Feeds	11	30.6
Twitter	17	47.2
MySpace	2	5.6
YouTube	21	58.3
Flickr	2	5.6
Other links and integrations	5	13.9

## 4.4 Online Advertising

There are not many tools available on brand profile pages which can be used for the purpose of online advertising. Brands can display their print advertisements or TV commercials on the “photos” and “videos” section. Alternatively, a separate section on a profile page can be created by brands to publish their advertisements. Even though brands can use the advertising service offered by Facebook, such advertisements, known as social ads, are not located on the profile page itself. This is an area beyond the context unit of this study and social ads are, therefore, not included in the analysis. Approximately 72 percent of the studied brand profile pages contained at least one TV commercial. On the other hand, print advertisements were found only on 13 out of 36 profile pages (Table 4.5).

**Table 4.5 Online Advertising on Brand Profile Pages**

	<b>Frequency (n = 36)</b>	<b>Percent (n = 100%)</b>
Print ads	13	36.1
TV commercials	26	72.2

## 4.5 Online MPR

As for online MPR, all of the 36 brands published one or more photos on their profile page. The Videos and events functions were commonly used by brands. 86.1 percent of brands published at least one video and 75 percent had at least one event respectively. In contrast, sponsorships, newsletters, and career were rarely used (Table 4.6). Only Mango offered a link which an interested individual could look at for career opportunities.

**Table 4.6 Online MPR on Brand Profile Pages**

	<b>Frequency (n = 36)</b>	<b>Percent (n = 100%)</b>
Newsletters	2	5.6
Career	1	2.8
Photos	36	100
Videos	31	86.1
Events	27	75
Sponsorships	5	13.9

Table 4.7 presents brief information about photos, videos, and events published on brand profiles. The number of photos posted on brand profiles varied from 3 to 8,875, with the average of 1,439.03 (s.d. = 2,279.794). Overall, photos on brand profiles were more likely to be posted by fans (mean = 1,154.89, s.d. = 2,265.933) rather by brands themselves (mean = 284.14, s.d. = 374.244). Similarly, slightly more videos on brand profiles were posted by fans (mean = 14.47, s.d. = 29.331) than by brands (mean = 12.75, s.d. = 13.164). The number of videos published on brand profile pages ranged from 0 to 155. As for events, on average, 14.53 (s.d. = 46.454) events were published on brand profiles, with the minimum of 0 and maximum of 269. Full details about photos, videos, and events published by all brands can be found in Appendix 5.

**Table 4.7 Brief Statistics of Photos, Videos, and Events**

	Number of photos	Brand published photos	Fan published photos	Number of videos	Brand published videos	Fan published videos	Number of events
Minimum	3	2	0	0	0	0	0
Maximum	8,875	1,636	8,827	155	61	146	269
Mean	1,439.03	284.14	1,154.89	27.22	12.75	14.47	14.53
Std. deviation	2,279.794	374.244	2,265.933	32.927	13.164	29.331	46.454

## 4.6 Online Sales Promotions

Brand profile pages were found to be rarely used for online sales promotion purposes. The most popular online sales promotion tool used by brands was contests and sweepstakes, which was used by 27.8 percent of the brands. None of the 36 brands offered coupons to consumers. Only one brand, namely Acer, offered other kinds of online sales promotions, apart from coupons and contests and sweepstakes (Table 4.8).

**Table 4.8 Online Sales Promotions on Brand Profile Pages**

	Frequency (n = 36)	Percent (n = 100%)
Coupons	0	0
Contests and sweepstakes	10	27.8
Other online sales promotions	1	2.8

## 4.7 Online Relationship Communications

There is a wide array of tools available on Facebook profiles which can be used for online relationship communications. Unfortunately, it was found that several tools, such as downloadable contents, online stores, catalogues, and so forth, were rarely used by brands, as indicated in Table 4.9. Three tools were moderately used on brand profiles, namely discussions, applications, and polls. The most commonly employed relationship communications tool was the discussions feature which was used by 21 out of 36

brands. However, it is worth noting that this tool is a basic feature provided by Facebook. It is surprising that almost 40 percent of the brands did not enable it.

**Table 4.9 Online Relationship Communications on Brand Profile Pages**

	<b>Frequency (n = 36)</b>	<b>Percent (n = 100%)</b>
Polls	10	27.8
Discussions	21	58.3
Applications	12	33.3
Wallpapers	1	2.8
Screensavers	1	2.8
Downloadable softwares	3	8.3
Other downloadable contents	1	2.8
Online store	1	2.8
Dealer information	1	2.8
Pricing information	2	5.6
Catalogue	1	2.8

As presented in Table 4.10 the number of polls employed on each profile page ranged from 0 to 21, with an average of 1.28 (s.d. = 3.669). One poll attracted as many as 78,380 participants. However, there were also some polls that participants did not respond to at all. On average, polls employed on one brand page attracted 18,126.61 participants (s.d. = 46,628.769). Further information about polls used by each brand is presented in Appendix 6.

**Table 4.10 Brief Statistics of Polls**

	<b>Number of polls</b>	<b>Participants</b>	<b>Participants per poll</b>
Minimum	0	0	0
Maximum	21	171,094	78,380
Mean	1.28	18,126.61	4,867.77
Std. deviation	3.669	46,628.769	15,154.783

Table 4.11 presents brief statistics relating to discussions. On average, 46.53 topics (s.d. = 114.957) were generated in each discussion section. 45.5 topics (s.d. = 114.657) were created by consumers whereas only 1.03 topics (s.d. = 1.781) were created by brands. Typically, each topic had 2.848 replies (s.d. = 3.369). Overall, 271.89 replies (s.d. = 680.632) were posed in each discussion section. Similar to the trend in topic creation, consumers replied to discussion topics (mean = 266.5, s.d. = 670.674) to a much greater extent than did brands (mean = 5.39, s.d. = 13.297). Further information about the discussion section on each brand profile page is presented in Appendix 7.

**Table 4.11 Brief Statistics of Discussions**

	Topics	Brand-created topics	Fan-created topics	Replies	Brand replies	Fan replies	Replies per topic
Minimum	0	0	0	0	0	0	0
Maximum	480	8	479	3003	67	2,936	12
Mean	46.53	1.03	45.5	271.89	5.39	266.5	2.848
Std. deviation	114.957	1.781	114.657	680.632	13.297	670.674	3.369

As for the number of applications employed on brand profiles, many profile pages were found to have no applications at all. Coca-cola had the highest number of applications on its profile page with three in total. In general, a typical brand profile was found to have 0.42 application (s.d. = 0.692) on the page (Table 4.12).

**Table 4.12 Brief Statistics of Applications**

	Number of applications
Minimum	0
Maximum	3
Mean	0.42
Std. deviation	0.692

The last tool on brand profile pages which can be used for the purpose of online relationship communication is the wall post. The wall is a section on a profile page where brands can publish their information for consumers, such as upcoming events, new promotions, or new products. On average, the number of posts on walls between August 15<sup>th</sup>, 2009 to August 15<sup>th</sup>, 2010 was 217.31 (s.d. = 181.773). Asus posted information on its wall most frequently (659 times). In contrast, Lindt was found to be the most inactive brand in terms of wall posts. It only had two posts in a period of one year (Table 4.13). Further information about wall posts for each brand is presented in Appendix 8.

**Table 4.13 Brief Statistics of Wall Posts**

	<b>Posts on wall</b>
Minimum	2
Maximum	659
Mean	217.31
Std. deviation	181.773

## 4.8 Composite Variables

Before conducting further analysis, data of all nominal items in each dimension were combined together to create a composite variable (Ahn, Kwon, & Sung, 2010). For example, the composite variable for basic information was calculated by combining the values of six items, namely the logo, company overview, founding year, headquarters location, mission, and page administrator. If a particular brand profile employs all of these six features, the value of its composite variable for basic information will be 6. In contrast, if none of these features are used, the value will be 0. As a result, six composite variables are generated. These variables represent brands' use of basic information, links and integration, online advertising, online MPR, online sales promotions, and online relationship communication.

## **4.9 Differences between Product and Service Brands**

A t-test was used to investigate whether there was any significant difference between product and service brands in their use of profile pages. The result revealed no significant difference for all composite variables, namely basic information ( $t = 0.797$ ,  $df = 34$ ,  $p = 0.431$ , ns), links and integration ( $t = 0.382$ ,  $df = 34$ ,  $p = 0.705$ , ns), online advertising ( $t = -0.146$ ,  $df = 34$ ,  $p = 0.885$ , ns), online MPR ( $t = 1.793$ ,  $df = 34$ ,  $p = 0.082$ , ns), online sales promotion ( $t = 1.776$ ,  $df = 20.515$ ,  $p = 0.091$ , ns), and online relationship communication ( $t = 0.944$ ,  $df = 34$ ,  $p = 0.352$ , ns).

Another t-test was carried out on several other variables, namely the number of fans, the number of photos, the number of videos, the number of events, the number of wall posts, the number of polls, the number of participants per poll, the number of topics, the number of replies per topic, and the number of applications. Significant differences were found for two variables: the number of photos ( $t = 3.452$ ,  $df = 27.481$ ,  $p = 0.002$ ) and the number of topics ( $t = 2.244$ ,  $df = 26.621$ ,  $p = 0.033$ ). Specifically, product brands published more photos and generated more topics in the discussion sections than did service brands (see Table 4.14 and Table 4.15)

## **4.10 Differences among Countries**

An ANOVA was used to examine differences among countries. As presented in Table 19, significant differences were found only in the case of online MPR ( $F = 2.623$ ,  $df = 35$ ,  $p = 0.044$ ). There was no significant difference among countries for the use of basic information ( $F = 2.336$ ,  $df = 35$ ,  $p = 0.066$ , ns), links and integration ( $F = 0.525$ ,  $df = 35$ ,  $p = 0.756$ , ns), online advertising ( $F = 0.937$ ,  $df = 35$ ,  $p = 0.471$ , ns), online sales promotion ( $F = 0.809$ ,  $df = 35$ ,  $p = 0.552$ , ns), and online relationship communications ( $F = 1.226$ ,  $df = 35$ ,  $p = 0.322$ ).

Another ANOVA was run on the number of fans, the number of photos, the number of videos, the number of events, the number of wall posts, the number of polls, the number

of participants per poll, the number of topics, the number of replies per topic, and the number of applications. However, no significant difference emerged from this analysis.

**Table 4.14 Independent Samples T-Test on Composite Variables**

	T-Test for Equality of Means						
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval	
						Lower	Upper
Basic information	.797	34	.431	.259	.325	-.402	.920
Links and integration	.382	34	.705	.259	.679	-1.121	1.639
Online advertising	-.146	34	.885	-0.037	.253	-.552	.478
Online MPR	1.793	34	.082	.519	.289	-.069	1.106
Online sales promotions	1.776	20.515	.091	.259	.146	-.045	.563
Online relationship communications	.944	34	.352	.519	.549	-.597	1.634

**Table 4.15 Descriptive Statistics for Number of Photos and Topics**

	Type	N	Mean	Std. Deviation	Std. Error Mean
Number of photos	Product	27	1860.00	2498.306	480.799
	Service	9	176.11	247.937	82.646
Number of Topics	Product	27	60.67	130.147	25.047
	Service	9	4.11	8.268	2.756

**Table 4.16 ANOVA on Composite Variables (Country)**

		Sum of squares	df	Mean Square	F	Sig.
Basic information	Between groups	6.936	5	1.387	2.336	.066
	Within groups	17.814	30	.594		
	Total	24.750	35			
Links and integration	Between groups	8.548	5	1.710	.525	.756
	Within groups	97.757	30	3.259		
	Total	106.306	35			
Online advertising	Between groups	1.993	5	.399	.937	.471
	Within groups	12.757	30	.425		
	Total	14.750	35			
Online MPR	Between groups	6.388	5	1.278	2.623	.044
	Within groups	14.612	30	.487		
	Total	21.000	35			
Online sales promotions	Between groups	.908	5	.182	.809	.552
	Within groups	6.731	30	.224		
	Total	7.639	35			
Online relationship communications	Between groups	12.043	5	2.409	1.226	.322
	Within groups	58.957	30	1.965		
	Total	71.000	35			

## 4.11 Differences among Industries

An ANOVA was employed to investigate differences among industries. The result indicated that there were no significant differences among industries in the use of basic information ( $F = 1.148$ ,  $df = 35$ ,  $p = 0.383$ , ns), links and integration ( $F = 0.808$ ,  $df = 35$ ,  $p = 0.663$ , ns), online advertising ( $F = 1.859$ ,  $df = 35$ ,  $p = 0.099$ , ns), online MPR ( $F = 1.188$ ,  $df = 35$ ,  $p = 0.357$ , ns), online sales promotions ( $F = 0.722$ ,  $df = 35$ ,  $p = 0.742$ , ns), and online relationship communications ( $F = 0.690$ ,  $df = 35$ ,  $p = 0.771$ , ns).

**Table 4.17 ANOVA on Composite Variables (Industry)**

		Sum of squares	df	Mean Square	F	Sig.
Basic information	Between groups	12.167	16	.760	1.148	.383
	Within groups	12.583	19	.662		
	Total	24.750	35			
Links and integration	Between groups	43.056	16	2.691	.808	.663
	Within groups	63.250	19	3.329		
	Total	106.306	35			
Online advertising	Between groups	9.000	16	.562	1.859	.099
	Within groups	5.750	19	.303		
	Total	14.750	35			
Online MPR	Between groups	10.500	16	.656	1.188	.357
	Within groups	10.500	19	.553		
	Total	21.000	35			
Online sales promotions	Between groups	2.889	16	.181	.722	.742
	Within groups	4.750	19	.250		
	Total	7.639	35			
Online relationship communications	Between groups	26.083	16	1.630	.690	.771
	Within groups	44.917	19	2.364		
	Total	71.000	35			

For other variables, a significant difference among industries was found only in the number of wall posts ( $F = 2.226$ ,  $df = 35$ ,  $p = 0.049$ ).

## 4.12 Association between the Use of Brand Profile Pages and Brand Value

A Pearson product-moment correlation coefficient was used to investigate the association between the use of brand profiles and brand value. Several associations were found to be significant (Table 4.18). In short, it was found that more successful brands

tended to employ more links and integration, online MPR, and online relationship communication features. They were also more likely to have a higher number of committed fans, and a higher number of photos and videos published. They conducted more events and announced their events on their profiles. They also published more polls to get feedback from consumers. Finally, they were also more likely to employ applications on their profiles.

**Table 4.18 Correlations**

Pair	Pearson correlation	Sig. (2-tailed)
Links and integration x value	0.340*	0.043
Online MPR x value	0.369*	0.027
Online relationship communications x value	0.490**	0.002
Number of fans x value	0.686**	0.000
Number of photos x value	0.505**	0.002
Number of videos x value	0.616**	0.000
Number of events x value	0.458**	0.005
Number of polls x value	0.629**	0.000
Number of topics x value	0.369*	0.027
Number of applications x value	0.628**	0.000

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

## 4.13 Chapter Summary

This chapter presented data analyses procedures and reported their results. Descriptive information regarding brand presence on Facebook and businesses' use of profile pages as an OMC tool was provided. Only a few differences in businesses' use of Facebook profile pages were found across brand types, countries, and industries. Brand value was found to be associated with several variables, although the direction of relationships could not be established. The next chapter will use these findings to answer the proposed research questions. Limitations and implications of this study will also be discussed in the following chapter.

# **Chapter 5**

## **Summary and Conclusions**

The previous chapter reported the analyses and their results. Several interesting findings emerged, such as the lack of brand presence on Facebook and the association between brand value and businesses' use of profile pages. This chapter will provide a brief summary of the findings as well as the conclusions of this dissertation. First, major findings are reported based on the five proposed research questions. Second, implications for academics and practitioners are provided. Third, limitations of this dissertation are discussed. Fourth, several areas are identified as future research opportunities. Finally, conclusions of this dissertation are given.

### **5.1 Major Research Findings**

The first noteworthy finding is that only 36 out of 60 top brands created and maintained their profile pages on Facebook. This is surprising since it was assumed that top brands were more likely to have profile pages than typical brands. Nevertheless, future research should validate this issue.

The first research question asked to what extent brand profile pages on Facebook are used as a tool for online advertising, online MPR, online sales promotions, and online relationship communications. The result revealed that there was only a limited set of features available on brand profiles which could be used to publish advertising materials. Only 36.1 percent of brands published print advertisements and 72.2 percent published TV commercials on brand profiles. This indicates that brand profiles might not be the best venue for advertising purposes. Nevertheless, there is another feature on Facebook, namely social ads, which might be more suitable for advertising. However, these advertisements appear on user profiles rather than brand profiles and are thus beyond the scope of the present study. Brands used the features of online photos, videos, and events extensively (100%, 86.1%, and 75% respectively). In contrast,

newsletters, career, and sponsorships were rarely adopted. Only a few features could be used for online sales promotion, comparable to those of online advertising. However, the result shows that, among the four dimensions of OMC, online sales promotion features were used the least. Out of 36 brands, only 10 brands used contests and sweepstakes, only one employed other promotional tools, and none of them offered coupons on their profile pages. A wide range of features were found to be suitable for online relationship communications. However, brands did not appear to utilise them to their full potential. Only polls, discussions, and applications were used by more than 10 out of 36 brands. The rest of the online relationship communication features were found to be employed by less than three brands.

Overall, it appears that brand profile pages on Facebook offer more tools to be used for online MPR and online relationship communications than tools to be used for online advertising and online sales promotions. This might partly result from the network nature of Facebook. Apart from the four dimensions of OMC, brands were also found to provide some basic information about themselves as well as offer several links to or integration with other online platforms. Notably, it was found that many features available to be used for OMC were underutilised by brands, such as newsletters, promotional tools, online stores, and so forth. Table 5.1 presents a comparison of this study and the study of Kuhn and Burns (2008) on MySpace.

**Table 5.1 Comparison of the Use of Brand Profiles on Facebook and MySpace**

<b>Comparable feature</b>	<b>Percent (Facebook, this study)</b>	<b>Percent (MySpace, Kuhn &amp; Burns, 2008)</b>
<b>Basic information</b>		
Logo	100	98
<b>Links and integration</b>		
Link to brand Web site	100	82
Blog	19.4	28
<b>Online advertising</b>		
TV commercials	72.2	40
<b>Online MPR</b>		

Newsletters	5.6	14
Photos	100	46
Videos	86.1	74
Sponsorships	13.9	4
<b>Online sales promotions</b>		
Coupons	0	10
Contests and sweepstakes	27.8	30
<b>Online relationship communications</b>		
Polls	27.8	6
Discussions	58.3	60
Wallpapers	2.8	70
Screensavers	2.8	10
Online store	2.8	36

The second research question focused on the differences between product and service brands. Past research has pointed out that product brands and service brands appear to use their Web sites for different purposes. Specifically, service brands have been found to utilise their Web sites for image building purposes, whereas product brands have been found to employ their Web sites to build and enhance their relationships with consumers (Dou & Krishnamurthy, 2007). In the same vein, it has also been found that product brands are more likely to employ brand entertainment contents on SNS than their service counterparts (Zhang, et al., 2010). Thus, during this study, it was expected that some differences would emerge from the comparison of product and service brands in their use of profiles pages on Facebook.

The result of this study indicated that significantly more product brands maintained their presence on Facebook than service brands. However, their use of brand profile pages was found to be closely similar. Only two aspects were found to be different. Specifically, product brands were found to publish more photos on their profile pages and had more activities in their discussion sections.

Research question three addressed the differences in profile page usage pattern among countries of origin. Previous research has found that brands from different countries are likely to employ their Web sites differently (e.g., Robbins & Stylianou, 2003; Shintaro & Rivas, 2002). For example, Robbins & Stylianou, 2003 found that Anglo American brands used their Web site for staff recruitment more than brands from Asian and Latin countries. Therefore, in the course of this study it was expected that the assumption regarding differences across countries would hold true in the SNS context.

The result indicated that the difference in brand presence on Facebook was significant across countries. All ten global brands had profile pages. In contrast, Spanish brands were the least likely to maintain their presence on Facebook. However, usage patterns were found to be almost identical across countries except in the case of online MPR.

Research question four investigated differences across industries. In the World Wide Web context, Perry and Bodkin (2000) found that businesses' use of their Web sites for OMC purposes differed across industries. However, in another study, Robbins and Stylianou (2003) reported that differences among industries in terms of businesses' use of their Web sites for OMC were found to be minimal. In line with Robbins and Stylianou (2003), Kuhn and Burns (2008) found that businesses' practices on MySpace only differed slightly across industries.

The finding of the present study revealed that automotive, consumer electronics, and food and beverage brands appeared to be more likely to have brand profiles on Facebook than were brands from other industries. Similar to previous research questions, and in line with the research of Robbins and Stylianou (2003) and Kuhn and Burns (Kuhn & Burns, 2008), brand practices across industries were found to be largely similar except in the case of wall posts.

The results of the previous research questions indicate that the differences across brand types, countries, and industries mainly derive from brand presence. On the other hand, businesses' use of profile pages for online advertising, online MPR, online sales promotions, and online relationship communications are largely similar. One possible explanation of this phenomenon is that brands tend to employ only the basic features provided by Facebook and rarely develop other distinctive features, regardless of brand

types, countries, or industries. Another possible explanation is that the sample in this study was too small to capture the differences.

The last research question targeted the association between brand value and businesses' use of profile pages. The result showed that brands with higher value appeared to use their profile pages more intensively for online MPR and online relationship communications. Moreover, they were more likely to employ more links and integration, publish more photos and videos, have more events, have more applications, and use more polls. Furthermore, more successful brands were also found to have higher number of fans.

## **5.2 Implications**

Several implications for both academics and practitioners emerged from this study. For academics, this study points out the lack of research on business practices on Facebook in particular, and SNS in general. With the aim of exploring brand practices on Facebook, this study evaluated the application of brand profiles as a tool for OMC. The results indicated that, overall, profile pages were not utilised to their full potential. Firms were found to employ only basic features provided by Facebook and were not likely to develop distinctive contents. It appeared that many firms created their brand profile pages just because others did so. The association between brand value and the use of profile pages implied that the use of brand profiles as an OMC tool could possibly contribute to brand value. However, the direction of the association could not be established because of the nature of the study. This area is worthy of investigation by further research. This study has, however, contributed to the body of literature through its adoption of an OMC typology as a theoretical background to categorise items on Facebook for content analysis. It has also provided a comprehensive review of SNS literature and several aspects that need further investigation have been identified. This issue will be discussed further in the section on future research directions.

As for practitioners, the results indicate that there are several tools on Facebook which can be used for Online MPR and online relationship communications. Features, such as polls and discussions, are valuable tools for obtaining feedback from consumers. Unfortunately, these tools were found to be underutilised even among top brands. The

association between the intensity of brand profile usage and brand value signifies that brand profile pages could be a valuable tool for marketers. Marketers might find it useful to develop unique contents and employ them on their profile pages. This would help them gain an advantage over other brands which typically use only basic features offered by Facebook. Registrations to SNS continue to increase. On Facebook alone, there are more than 500 million users. It is likely that SNS will be an area of intense competition in the following decades.

### **5.3 Limitations**

Like any other research, this study suffers from several limitations. First, the sample size of brands was relatively small. This is partly due to the fact that not as many brands had a presence on Facebook as expected. There was also a time constraint to this study. These issues might explain why it failed to capture some differences across brand types, countries, and industries. However, it is also possible that the lack of differences derived from the fact that brands investigated in this research tended to employ only basic features provided by Facebook. At the same time, however, it should be noted that the sample size used in this research was not much different from previous research on similar issues (e.g., Kuhn & Burns, 2008; Murphy, et al., 2003). Second, the sampling technique employed in this study was a non-probability technique, that is, convenience sampling. This was used because there is no complete list of brand profile pages on Facebook and there are also many new profile pages being created on Facebook every day. Therefore, the generalisation of research findings should be treated with caution. Nevertheless, generalisation was not the primary purpose of this study; rather, it aimed at exploring and describing how brand profiles on Facebook are used. Finally, two items, namely likes and comments, had a low inter-coder reliability level and were excluded from the analyses. This is due to the fact that the number of likes and comments were displayed differently by two coders, a difference which may or may not have been caused by a Facebook's database error. Future research might choose to download all brand profile pages onto a physical hard drive instead to avoid this difficulty.

## **5.4 Directions for Future Research**

The present study offers several fruitful areas for future research. First, due to the nature of content analysis research, it is relatively easy to conduct longitudinal studies. Future research could adopt and refine the coding schedule in this study and examine the changes in brand practices overtime. Future research could also investigate brand practices on other SNS, apart from MySpace and Facebook, to find the differences across sites. Another possible avenue for future research would be to employ different theoretical frameworks and conduct other types of content analysis on Facebook or other sites. As mentioned several times earlier, overall, research on brand practices on SNS is relatively limited. Future research could use other research methodologies to examine this issue, such as surveys, interviews, and so forth. Finally, it is worth investigating the relationship between businesses' use of profile pages and brand value since it is not possible to determine whether the intensity of profile page use contributes to brand value or the other way around.

Apart from brand practices, as indicated in the literature review chapter, future research might aim to answer boyd and Ellison's (2008) question regarding who is and who is not a user of SNS. An understanding of SNS users would help brands to develop better online marketing communication strategies. Another SNS area worth investigating is the purchase of virtual items on SNS. Many companies sell virtual items on Facebook, especially online gaming service providers. Recently, Facebook also introduced Facebook currency which can be used to buy virtual items sold directly by Facebook or sold in other gaming applications. As far the author is aware, there is only one study examining this area. Cha (2009) found that gender, social networking site experience, ease of use, and fit determine buyers' attitude towards the purchase of virtual items on SNS. Future research in this area would be useful for firms that plan to sell their products on Facebook.

## **5.5 Conclusions**

This exploratory research investigated how brand profile pages on Facebook are used as an OMC tool. SNS is a relatively new phenomenon, appearing only in the last decade. It has gained wide attention from presses, academics, businesses, and the public in general. Its popularity continues to grow at a dramatic rate. Based on an extensive

literature review, a gap in SNS literature was identified. Specifically, whereas numerous studies have been conducted on users' characteristics (e.g., Hargittai, 2008; Thelwall, et al., 2010; Tufekci, 2008), motivations to join SNS (e.g., Foster, et al., 2010; Gangadharbatla, 2008; Pelling & White, 2009), benefits and drawbacks of SNS (e.g., Hargittai & Hsieh, 2010; Mesch, 2009; Muise, et al., 2009; Valkenburg, et al., 2006), there are only a few studies investigating brand practices on SNS (i.e., Jansen, et al., 2009; Kuhn & Burns, 2008; Zhang, et al., 2010).

Content analysis, which is frequently employed in exploratory studies in mass communication research, was adopted to address several research questions. The typology of OMC was employed to create a coding schedule. The four dimensions of OMC as proposed by Jensen and Jepsen (2006) are (1) online advertising, (2) online MPR, (3) online sales promotion, and (4) online relationship communications. Based on this typology, research questions were proposed to examine businesses' use of features available on profile pages as a tool for these four components of OMC as well as to examine differences in brand practices across brand types, countries, and industries. The association between brand value and businesses' use of profile pages was also evaluated.

The results indicated that, overall, brands did not employ features available on profile pages to their full potential. In line with the study of Kun and Burns (2008), it was found that brands typically employed basic features available and did not develop their own distinctive contents to any great extent. Basic features were found to be more suitable for online MPR and online relationship communications rather than online advertising and online sales promotions. Several tools such as polls and discussions which could be valuable for feedback gathering were found to be underutilised by brands. Product brands and service brands were not found to be much different in their use of profile pages except for the fact that product brands were more likely to have profile pages than their service counterparts. Similarly, brands from different countries and industries were found to be largely similar in their use of profile pages. Finally, it was found that more successful brands tended to use their profile pages more intensively.

This study is among the first that to investigate brand practices on Facebook. It suffers from several limitations as other exploratory studies also do. Nevertheless, the findings of this study and an extensive literature review shed light on several areas that are worthy of further investigation. This research also contributes to the development of research methodology for SNS content analysis. As SNS continue to grow, a body of research is needed to provide practitioners with guidance in order to compete in this intense arena.

## References

- Acar, A. S. (2008). Antecedents and consequences of online social networking behavior: The case of Facebook. *Journal of Website Promotion*, 3(1/2), 62-83.
- Acar, A. S., & Polonsky, M. (2007). Online social networks and insights into marketing communications. *Journal of Internet Commerce*, 6(4), 55-72.
- Agarwal, S., & Mital, M. (2009). An exploratory study of Indian university students' use of social networking Web sites: Implications for the workplace. *Business Communication Quarterly*, 72(1), 105-110.
- Ahn, H., Kwon, M. W., & Sung, Y. (2010). Online brand community across cultures: A comparison between the US and Korea. *International Journal of e-Business Management*, 4(1), 34-52.
- Alexa.com. (2010a). *Facebook.com site info*. Retrieved October, 20th, 2010, from <http://www.alexa.com/siteinfo/facebook.com>
- Alexa.com. (2010b). *MySpace.com site info*. Retrieved October, 20th, 2010, from <http://www.alexa.com/siteinfo/myspace.com>
- Ancu, M., & Cozma, R. (2009). MySpace politics: Uses and gratifications of befriending candidates. *Journal of Broadcasting & Electronic Media*, 53(4), 567-583.
- Ante, S. E. (2008). *Has Facebook's value taken a hit?* Retrieved October, 20th, 2010, from [http://www.businessweek.com/magazine/content/08\\_33/b4096000952343.htm](http://www.businessweek.com/magazine/content/08_33/b4096000952343.htm)
- Antin, J., & Earp, M. (2010). With a little help from my friends: Self-interested and prosocial behavior on MySpace music. *Journal of the American Society for Information Science and Technology*, 61(5), 952-963.
- Arnes, W. S., Weigold, M. F., & Arnes, C. (2008). *Contemporary advertising* (11th ed.). New York, NY: McGraw-Hill/Irwin.
- Arrington, M. (2008). *Facebook no longer the second largest social network*. Retrieved October, 20th, 2010, from <http://techcrunch.com/2008/06/12/facebook-no-longer-the-second-largest-social-network/>
- Baker, J. R., & Moore, S. M. (2008). Distress, coping, and blogging: Comparing new MySpace users by their intention to blog. *CyberPsychology & Behavior*, 11(1), 81-85.
- Barker, V. (2009). Older adolescents' motivations for social network site use: The influence of gender, group identity, and collective self-esteem. *CyberPsychology & Behavior*, 12(2), 209-213.
- Bates, M. J., & Lu, S. (1997). An exploratory profile of personal home pages: Content, design, metaphors. *Online and CDROM Review*, 21(6), 331-340.
- Baym, N. K., & Ledbetter, A. (2009). Tunes that bind? Predicting friendship strength in a music-based social network. *Information, Communication & Society*, 12(3), 408-427.
- BBC. (2005). *News Corp in \$580m internet buy*. Retrieved October, 20th, 2010, from <http://news.bbc.co.uk/2/hi/business/4695495.stm>
- BBC. (2006). *Google signs \$900m News Corp deal*. Retrieved October, 20th, 2010, from <http://news.bbc.co.uk/2/hi/business/5254642.stm>
- BBC. (2010). *Facebook hits 500m user milestone*. Retrieved October, 20th, 2010, from <http://www.bbc.co.uk/news/technology-10713199>
- Beer, D. (2008). Social network(ing) sites...revisiting the story so far: A response to danah boyd & Nicole Ellison. *Journal of Computer-Mediated Communication*, 13(2), 516-529.
- Belch, G. E., & Belch, M. A. (2004). *Advertising and promotion: An integrated marketing communications perspective* (6th ed.). New York, NY: McGraw-Hill/Irwin.

- Benson, V., Filippaios, F., & Morgan, S. (2010). Online social networks: Changing the face of business education and career planning. *International Journal of e-Business Management*, 4(1), 20-33.
- Berelson, B. (1952). *Content analysis in communication research*. New York, NY: Free Press.
- boyd, d. m., & Ellison, N. B. (2008). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13(1), 210-230.
- Bryman, A., & Bell, E. (2007). *Business research methods* (2nd ed.). New York, NY: Oxford University Press.
- Byrne, D. N. (2008). Public discourse, community concerns, and civic engagement: Exploring black social networking traditions on BlackPlanet.com. *Journal of Computer-Mediated Communication*, 13(1), 319-340.
- Calin, V., & Carmen, P. (2009). Social network: Reasons to join and things done by the Romanian consumers - An exploratory assessment. *Annals of Faculty of Economics, University of Oradea, Faculty of Economics*, 4(1), 869-873.
- Cardon, P. W., Marshall, B., Norris, D. T., Cho, J., Choi, J., Cui, L., et al. (2009). Online and offline social ties of social network website users: An exploratory study in eleven societies. *Journal of Computer Information System*, 50(1), 54-63.
- Cassidy, J. (2006). *Me media: How hanging out in the Internet became big business*. Retrieved October, 20th, 2010, from [http://www.newyorker.com/archive/2006/05/15/060515fa\\_fact\\_cassidy](http://www.newyorker.com/archive/2006/05/15/060515fa_fact_cassidy)
- Cha, J. (2009). Shopping on social networking Web sites: Attitudes toward real versus virtual items. *Journal of Advertising*, 10(1), 77-93.
- Cho, C. H., & Khang, H. K. (2006). The state of Internet-related research in communications, marketing, and advertising: 1994-2003. *Journal of Advertising*, 35(3), 143-163.
- Christ, R. E., Berges, J. S., & Trevino, S. C. (2007). Social networking sites: To monitor or not to monitor users and their content. *Intellectual Property & Technology Law Journal*, 19(7), 13-17.
- Christofides, E., Muise, A., & Desmarais, S. (2009). Information disclosure and control on Facebook: Are they two sides of the same coin or two different processes? *CyberPsychology & Behavior*, 12(3), 341-345.
- Cole, M. (2007). The networked consumer: A critical review and assessment. *Journal of Consumer Behaviour*, 6(1), 5-18.
- Compete.com. (2010a). *Facebook.com's (rank#3) site profile*. Retrieved October, 20th, 2010, from <http://siteanalytics.compete.com/facebook.com/>
- Compete.com. (2010b). *MySpace.com's (rank#14) site profile*. Retrieved October, 20th, 2010, from <http://siteanalytics.compete.com/myspace.com/>
- Cooke, M., & Buckley, N. (2008). Web2.0, social networks and the future of market research. *International Journal of Market Research*, 50(2), 267-292.
- Debattin, B., Lovejoy, J. P., Horn, A., & Hughes, B. N. (2009). Facebook and online privacy: Attitudes, behaviors, and unintended consequences. *Journal of Computer-Mediated Communication*, 15(1), 83-108.
- DeKay, S. (2009). Are business-oriented social networking Web sites useful resources for locating passive jobseekers? Results of a recent study. *Business Communication Quarterly*, 72(1), 101-105.
- Dong, Q., Urista, M. A., & Gundrum, D. (2008). The impact of emotional intelligence, self-esteem, and self-image on romantic communication over MySpace. *CyberPsychology & Behavior*, 11(5), 577-578.
- Dou, W., & Krishnamurthy, S. (2007). Using brand Websites to build brands online: A product versus service brand comparison. *Journal of Advertising Research*, 47(2), 193-206.
- Duncan, T., & Caywood, C. (1996). The concept, process, and evolution of integrated marketing communications. In E. Thorson & J. Moore (Eds.), *Integrated marketing*

- communications: Synergy of persuasive voices* (pp. 13-34). Mahwah, NJ: Lawrence Erlbaum.
- Dunlap, J. C., & Lowenthal, P. R. (2009). Tweeting the night away: Using Twitter to enhance social presence. *Journal of Information Systems Education*, 20(2), 129-135.
- Ellison, N. B., Steinfield, C., & 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.
- Elzweig, B., & Peebles, D. K. (2009). Using social networking Web sites in hiring and retention decisions. *SAM Advanced Management Journal*, 74(4), 27-35.
- Facebook. (2010). *Statistics*. Retrieved October, 20th, 2010, from <http://www.facebook.com/press/info.php?statistics>
- Foster, M. K., Francescucci, A., & West, B. C. (2010). Why users participate in online social networks. *International Journal of e-Business Management*, 4(1), 3-19.
- Foulger, T. S., Ewbank, A. D., Kay, A., Popp, S. O., & Carter, H. L. (2009). Moral in MySpace: Preservice teachers' perspectives about ethical issues in social networking. *Journal of Research on Technology in Education*, 42(1), 1-28.
- Fullwood, C., Sheeha, N., & Nicholls, W. (2009). Blog function revisited: A content analysis of MySpace blogs. *CyberPsychology & Behavior*, 12(6), 685-689.
- Gangadharbatla, H. (2008). Facebook me: Collective self-esteem, need to belong, and internet self-efficacy as predictors of the i-generation's attitudes toward social networking sites. *Journal of Interactive Advertising*, 18(2), 5-15.
- Genova, G. L. (2009). No place to play: Current employee privacy rights in social networking sites. *Business Communication Quarterly*, 72(1), 97-101.
- Gomez-Arias, J. T., & Genin, L. (2009). Beyond monetization: Creating value through online social networks. *International Journal of Electronic Business Management*, 7(2), 79-85.
- Grasmuck, S., Martin, J., & Zhao, S. (2009). Ethno-racial identity displays on Facebook. *Journal of Computer-Mediated Communication*, 15(1), 158-188.
- Greenhow, C., & Robelia, B. (2009). Old communication, new literacies: Social network sites as social learning resources. *Journal of Computer-Mediated Communication*, 14(4), 1130.
- Haefner, R. (2009). *More employers screening candidates via social networking sites*. Retrieved October 22nd, 2010, from <http://www.careerbuilder.com/Article/CB-1337-Getting-Hired-More-Employers-Screening-Candidates-via-Social-Networking-Sites/>
- Hargittai, E. (2008). Whose space? Differences among users and non-users of social network sites. *Journal of Computer-Mediated Communication*, 13(1), 276-297.
- Hargittai, E., & Hsieh, Y. P. (2010). Predictors and consequences of differentiated practices on social network sites. *Information, Communication & Society*, 13(4), 515-536.
- Haridakis, P., & Hanson, G. (2009). Social interaction and co-viewing with YouTube: Blending mass communication reception and social connection. *Journal of Broadcasting & Electronic Media*, 53(2), 317-335.
- Hayes, T. J., Ruschman, D., & Walker, M. M. (2009). Social networking as an admission tool: A case study in success. *Journal of Marketing for Higher Education*, 19(2), 109-124.
- Hempel, J. (2006). *Friendster's patent possibilities: Social-networking upstarts have stolen its lead, but the site now may have a potent legal weapon at its command*. Retrieved October, 19th, 2010, from [http://www.businessweek.com/technology/content/jul2006/tc20060713\\_163728.htm](http://www.businessweek.com/technology/content/jul2006/tc20060713_163728.htm)
- Holsti, O. R. (1969). *Content analysis for the social science and humanities*. Reading, MA: Addison-Wesley.
- Honeycutt, C., & Cunliffe, D. (2010). The use of the Welsh language on Facebook: An initial investigation. *Information, Communication & Society*, 13(2), 226-248.
- Hoy, M. G., & Milne, G. (2010). Gender differences in privacy-related measures for young adult Facebook users. *Journal of Interactive Advertising*, 10(2), 28-45.

- Interbrand. (2009a). Best Australian brands 2009: Ranked by brand value. 1-34. Retrieved from [http://www.interbrand.com/images/studies/-1\\_BestAustralianBrands\\_2009.pdf](http://www.interbrand.com/images/studies/-1_BestAustralianBrands_2009.pdf)
- Interbrand. (2009b). Best global brands 2009: The definitive guide to the world's most valuable brands.1-65. Retrieved from [http://www.interbrand.com/Libraries/Branding\\_Studies/Best\\_Global\\_Brands\\_2009.sflb.ashx](http://www.interbrand.com/Libraries/Branding_Studies/Best_Global_Brands_2009.sflb.ashx)
- Interbrand. (2009c). Die besten: Das ranking der Schweizer marken. *Bilanz*, 3. Retrieved from [http://www.interbrand.com/images/studies/-1\\_BILANZ\\_BestSwissBrands.pdf](http://www.interbrand.com/images/studies/-1_BILANZ_BestSwissBrands.pdf)
- Interbrand. (2009d). Japan's best global brands 2009. Retrieved from [http://www.interbrand.com/images/studies/83\\_83\\_0218jbgb\\_report.pdf](http://www.interbrand.com/images/studies/83_83_0218jbgb_report.pdf)
- Interbrand. (2009e). Mejores marcas Espa  olas 2009: Ranking por valor de marca. Retrieved from [http://www.interbrand.com/images/studies/-1\\_BSB09.pdf](http://www.interbrand.com/images/studies/-1_BSB09.pdf)
- Interbrand. (2009f). Top Taiwan global brands 2009: Ranked by brand value. Retrieved from [http://www.interbrand.com/images/studies/-1\\_Top\\_Taiwan\\_Global\\_Brands\\_2009\\_%28Final\\_MB%29.pdf](http://www.interbrand.com/images/studies/-1_Top_Taiwan_Global_Brands_2009_%28Final_MB%29.pdf)
- Jansen, B. J., Zhang, M., Sobel, K., & Chowdury, A. (2009). Twitter power: Tweets as electronic word of mouth. *Journal of the American Society for Information Science and Technology*, 60(11), 2169-2188.
- Jensen, M. B., & Jepsen, A. L. (2006). Online marketing communications: Need for a new typology of IMC. *Journal of Website promotion*, 2(1/2), 19-35.
- Kassarjian, H. H. (1977). Content analysis in consumer research. *Journal of Consumer Research*, 4(1), 8-18.
- Kitchen, P. J., & De Pelsmacker, P. (2004). *Integrated marketing communications: A primer*. NewYork, NY: Routledge.
- Kliatchko, J. (2005). Towards a new definition of integrated marketing communications (IMC). *International Journal of Advertising*, 24(1), 7-34.
- Kliatchko, J. (2008). Revisiting the IMC construct: A revised definition and four pillars. *International Journal of Advertising*, 27(1), 133-160.
- Kolbe, R. H., & Burnett, M. S. (1991). Content-analysis research: An examination of applications with directives for improving research reliability and objectivity. *Journal of Consumer Research*, 18(2), 243-250.
- Krasnova, H., Spiekermann, S., Koroleva, K., & Hildebrand, T. (2010). Online social networks: Why we disclose. *Journal of Information Technology*, 25, 109-125.
- Krippendorff, K. (2004). *Content analysis: An introduction to its methodology* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Kuhn, A., & Burns, K. S. (2008). From MySpace to brandspace: Elements of brand-sponsored MySpace profiles Symposium conducted at the meeting of the American Acedamy of Advertising Conference
- Lewis, J., & West, A. (2009). 'Friending': London-based undergraduates' experience of Facebook. *New Media & Society*, 11(7), 1209-1229.
- Lewis, K., Kaufman, J., & Christakis, N. (2008). The taste for privacy: An analysis of college student privacy settings in an online social network. *Journal of Computer-Mediated Communication*, 14(1), 79-100.
- Liu, H. (2008). Social network profiles as taste performances. *Journal of Computer-Mediated Communication*, 13(1), 252-275.
- Livingstone, S. (2008). Taking risky opportunities in youthful content creation: Teenagers' use of social networking sites for intimacy, privacy and self-expression. *New Media & Society*, 10(3), 393-411.
- Mabry, E., & Porter, L. (2010). Movies and MySpace: The effectiveness of official Web sites versus online promotional contests *Journal of Interactive Advertising*, 10(2), 1-15.
- Madhavaram, S., Badrinarayanan, V., & McDonald, R. E. (2005). Integrated marketing communication (IMC) and brand identity as critical components of brand equity

- strategy: A conceptual framework and research propositions. *Journal of Advertising*, 34(4), 69-80.
- Magnuson, M. J., & Dundes, L. (2008). Gender differences in "social portraits" reflected in MySpace profiles. *CyberPsychology & Behavior*, 11(2), 239-241.
- Majchrzak, A., Cherbakov, L., & Ives, B. (2009). Harnessing the power of the crowds with corporate social networking tools: How IBM does it. *MIS Quarterly Executive*, 8(2), 103-108.
- Mary, O., Charlie, P., Jitendra, M., & Bharat, M. (2010). Employers use Face book too, for hiring. *Advances in Management*, 3(1), 13-17.
- Massey, R. (2009). Pravacy and social networks: A European opinion. *Journal of Internet Law*, 13(4), 13-17.
- Maynard, M., & Tian, Y. (2004). Between global and glocal: Content analysis of the Chinese Web sites of the 100 top global brands. *Public Relations Review*, 30(3), 285-391.
- McGrath, J. M. (2005). IMC at a crossroads: A theoretical review and a conceptual framework for testing. *Marketing Management Journal*, 15(2), 55-66.
- McMillan, S. J. (2000). The microscope and the moving target: The challenge of applying content analysis to the World Wide Web. *Journalism & Mass Communication Quarterly*, 77(1), 80-98.
- Mesch, G. (2009). Parental mediation, online activities, and cyberbullying. *CyberPsychology & Behavior*, 12(4), 387-393.
- Microsoft. (2007). *Facebook and Microsoft expand strategic alliance*. Retrieved October, 20th, 2010, from <http://www.microsoft.com/Presspass/press/2007/oct07/10-24FacebookPR.mspx>
- Milgram, S. (1967). The small world problem. *Psychology Today*, 1(1), 61-67.
- Miller, R., Parsons, K., & Lifer, D. (2010). Students and social networking sites: The posting paradox. *Behaviour & Information Technology*, 29(4), 377-382.
- Muisse, A., Christofides, E., & Desmarais, S. (2009). More information than you ever wanted: Does Facebook bring out the green-eyed monster of jealousy? *CyberPsychology & Behavior*, 12(4), 441-444.
- Murphy, J., Raffa, L., & Mizerski, R. (2003). The use of domain name in e-branding by world's top brands. *Electronic Markets*, 13(3), 222-232.
- Notley, T. (2009). Young people, online networks, and social inclusion. *Journal of Computer-Mediated Communication*, 14(4), 1208-1227.
- Nov, O., Naaman, M., & Ye, C. (2010). Analysis of participation in an online photo-sharing community: A multidimensional perspective. *Journal of the American Society for Information Science and Technology*, 61(3), 555-566.
- Noveli, W. D. (1989). One-stop shopping: Some thoughts on integrated marketing communications. *Public Relations Quarterly*, 34(4), 7-9.
- Orr, E. S., Sisic, M., Ross, C., Simmering, M. G., Arseneault, J. M., & Orr, R. R. (2009). The influence of shyness on the use of Facebook in an undergraduate sample. *CyberPsychology & Behavior*, 12(3), 337-340.
- Park, N., Kee, K. F., & Valenzuela, S. (2009). Being immersed in the social networking environment: Facebook groups, uses and gratifications, and social outcomes. *CyberPsychology & Behavior*, 12(6), 729-733.
- Patchin, J. W., & Hinduja, S. (2010). Trends in online social networking: Adolescent use of MySpace over time. *New Media & Society*, 12(2), 197-216.
- Pelling, E. L., & White, K. M. (2009). The theory of planned behavior applied to young people's use of social networking Web sites. *CyberPsychology & Behavior*, 12(6), 755-759.
- Peluchette, J., & Karl, K. (2008). Social networking profiles: An examination of student attitudes regarding use and appropriateness of content. *CyberPsychology & Behavior*, 11(1), 95-97.

- Perry, M., & Bodkin, C. (2000). Content analysis of Fortune 100 company Web sites. *Corporate Communications: An International Journal*, 5(2), 87-96.
- Philips, M., McFadden, D. T., & Sullins, M. (2010). How effective is social networking for direct marketers? *Journal of Food Distribution Research*, 41(1), 96-100.
- Raacke, J., & Bonds-Raacke, J. (2008). MySpace and Facebook: Applying the uses and gratifications theory to exploring friend-networking sites. *CyberPsychology & Behavior*, 11(2), 169-174.
- Ratnatunga, J., & Ewing, M. T. (2005). The brand capability value of integrated marketing communication (IMC). *Journal of Advertising*, 34(4), 25-40.
- Reuters. (2006). *MySpace gains top ranking of U.S. websites*. Retrieved October, 20th, 2010, from [http://www.usatoday.com/tech/news/2006-07-11-myspace-tops\\_x.htm](http://www.usatoday.com/tech/news/2006-07-11-myspace-tops_x.htm)
- Robbins, S. S., & Stylianou, A. C. (2003). Global corporate Web sites: an empirical investigation of content and design. *Information & Management*, 40(3), 205-212.
- Roberts, S. J., & Roach, T. (2009). Social networking Web sites and human resource personnel: Suggestions for job searches. *Business Communication Quarterly*, 72(1), 110-114.
- Rose, P. B., & Miller, D. A. (1994). Merging Advertising and PR: Integrated Marketing Communications. *Journalism Educator*, 49(2), 52-63.
- Rourke, L., Anderson, T., Garrison, D. R., & Archer, W. (2001). Methodological issues in content analysis of computer conference transcripts. *International Journal of Artificial Intelligence in Education*, 12, 8-22.
- Sargent, C. (2009). Local musicians building global audiences: Social capital and distribution of user-created content on- and off-line. *Information, Communication & Society*, 12(4), 469-487.
- Schultz, D. E. (1993). Integrated marketing communications: Maybe definition is in the point of view. *Marketing News*, 27(2), 17.
- Schultz, D. E., & Kitchen, P. J. (1997). Integrated marketing communications in U.S. advertising agencies: An exploratory study. *Journal of Advertising*, 37(5), 7-18.
- Schultz, D. E., & Schultz, H. (1998). Transitioning marketing communication into the twenty-first century. *Journal of Marketing Communications*, 4(1), 9-26.
- Shen, K. N., & Khalifa, M. (2010). Facebook usage among Arabic college students: Preliminary findings on gender differences. *International Journal of e-Business Management*, 4(1), 53-65.
- Shimp, T. A. (2000). *Advertising promotion: Supplemental aspects of integrated marketing communications* (5th ed.). Fort Worth, TX: The Dryden Press, Harcourt College Publishers.
- Shintaro, O., & Rivas, F. A. (2002). A content analysis of multinational's Web communication strategies: Cross-cultural research framework and pre-testing. *Internet Research: Electronic Networking Application and Policy*, 12(5), 380-390.
- Sledgianowski, D., & Kuvivat, S. (2009). Using social network sites: The effects of playfulness, critical mass and trust in a hedonic context. *Journal of Computer Information System*, 49(4), 74-83.
- Smith, T. (2009). The social media revolution. *International Journal of Market Research*, 51(4), 559-561.
- Smith, T. M., Gopalakrishna, S., & Chatterjee, R. (2006). A three-stage model of integrated marketing communications at the marketing-sales interface. *Journal of Marketing Research*, 43(4), 564-579.
- Spotts, H. E., Lambert, D. R., & Joyce, M. L. (1998). Marketing déjà vu: The discovery of integrated marketing communications. *Journal of Marketing Education*, 20(3), 210-218.
- Suhr, H. C. (2009). Underpinning the paradoxes in the artistic fields of MySpace: The problematization of values and popularity in convergence culture. *New Media & Society*, 11(1&2), 179-198.

- Takahashi, T. (2010). MySpace or Mixi? Japanese engagement with SNS (social networking sites) in the global age. *New Media & Society*, 12(3), 453-475.
- Thelwall, M. (2008). Social networks, gender, and friending: An analysis of MySpace member profiles. *Journal of the American Society for Information Science and Technology*, 59(8), 1321-1330.
- Thelwall, M. (2009). Homophily in MySpace. *Journal of the American Society for Information Science and Technology*, 60(2), 219-231.
- Thelwall, M., & Wilkinson, D. (2010). Public dialogs in social network sites: What is their purpose? *Journal of the American Society for Information Science and Technology*, 61(2), 392-404.
- Thelwall, M., Wilkinson, D., & Uppal, S. (2010). Data mining emotion in social network communication: Gender differences in MySpace. *Journal of the American Society for Information Science and Technology*, 61(1), 190-199.
- Tong, S. T., Heide, B. V. D., Langwell, L., & Walther, J. B. (2008). Too much of a good thing? The relationship between number of friends and interpersonal impressions on Facebook. *Journal of Computer-Mediated Communication*, 13(3), 531-549.
- Tow, W. N. H., & Dell, P. (2008). Understanding information disclosure behaviour in Australian Facebook users Symposium conducted at the meeting of the Australian Conference on Information Systems, Christchurch.
- Troiano, M. A. (2008). Striking a balance between online child exploitation and protecting users' privacy rights: A survival guide for social networking sites. *Journal of Internet Law*, 11(10), 3-11.
- Trusov, M., Bucklin, R. E., & Pauwels, K. (2009). Effects of word-of-mouth versus traditional marketing: Findings from an internet social networking site. *Journal of Marketing*, 73(5), 90-102.
- Tufekci, Z. (2008). Grooming, gossip, Facebook and MySpace. *Information, Communication & Society*, 11(4), 544-564.
- Utz, S. (2009). The (potential) benefits of campaigning via social network sites. *Journal of Computer-Mediated Communication*, 14(2), 221-243.
- Utz, S. (2010). Show me your friends and I will tell you what type of person you are: How one's profile, number of friends, and type of friends influence impression formation on social network sites. *Journal of Computer-Mediated Communication*, 15(2), 314-335.
- Valenzuela, S., Park, N., & Kee, K. F. (2009). Is there social capital in a social network site?: Facebook use and social students' life satisfaction, trust, and participation. *Journal of Computer-Mediated Communication*, 14(4), 875-901.
- Valkenburg, P. M., Peter, J., & Schouten, A. P. (2006). Friend networking sites and their relationship to adolescents' well-being and social self-esteem. *CyberPsychology & Behavior*, 9(5), 584-590.
- Wakiyama, P. T., & Kagan, O. (2009). Facebook vanity URLs may hurt more than just one's pride. *Intellectual Property & Technology Law Journal*, 21(9), 7-9.
- Walther, J. B., Heide, B. V. D., Hamel, L. M., & Shulman, H. C. (2009). Self-generated versus other-generated statements and impressions in computer-mediated communication. *Communication Research*, 36(2), 229-253.
- Weare, C., & Lin, W. (2000). Content analysis of the World Wide Web: Opportunities and challenges. *Social Science Computer Review*, 18(3), 272-292.
- Workforce.com. (2009). *Lawers warn Facebook a risky tool for background checks*. Retrieved October 22nd, 2010, from <http://www.workforce.com/section/06/feature/25/45/83/254585.html>
- Zhang, J., Sung, Y., & Lee, W. (2010). To play or not to play: An exploratory content analysis of branded entertainment in Facebook. *American Journal of Business*, 25(1), 53-64.
- Zywica, J., & Danowski, J. (2008). The faces of Facebookers: Investigating social enhancement and social compensation hypotheses; predicting Facebook<sup>TM</sup> and offline popularity

from sociability and self-esteem, and mapping the meanings of popularity with semantic networks. *Journal of Computer-Mediated Communication*, 14(1), 1-34.

## **Appendices**

# Appendix 1: Coding Schedule

<b>Coding Schedule</b>									
Brand:			Date:			Coder:			
No.	Item	Code	No.	Item	Code	No.	Item	Code	
<b>Basic Information</b>			<b>Online MPR</b>			38	Comments		
1	Presence		20	Newsletters		39	Polls		
2	Logo		21	Career		40	PollsNumber		
3	Overview		22	Photos		41	Participants		
4	Founded		23	PhotosNumber		42	Discussions		
5	Headquarters		24	BPhotos		43	Topics		
6	Mission		25	FPhotos		44	BTops		
7	Admin		26	Videos		45	FTops		
8	Fans		27	VideoNumbers		46	Replies		
<b>Links and integration</b>			28	BVideos		47	BReplies		
9	Website		29	FVideos		48	FReplies		
10	Page		30	Events		49	Applications		
11	Blog		31	EventsNumber		50	ApplicationsNo		
12	RSS		32	Sponsorship		51	Wallpapers		
13	Twitter		<b>Online sales promotions</b>			52	Screensavers		
14	MySpace		33	Coupons		53	Softwares		
15	YouTube		34	Contests		54	OtherDL		
16	Flickr		35	OtherPromos		55	OnlineStore		
17	OtherLinks		<b>Online relationship communications</b>			56	DealerInfo		
<b>Online advertising</b>						57	PricingInfo		
18	PrintAds		36	Posts		58	Catalogue		
19	TVC		37	Likes					

## Appendix 2: Coding Manual

<b>Coding Manual</b>			
No.	Item	Code	Note
<b>Basic information</b>			
1	Presence	1 = presence, 0 = absence	Whether the particular brand has a profile page on Facebook or not. If not, code presence as 0 and move to another brand
2	Logo	1 = presence, 0 = absence	Whether the brand includes its logo in one of its profile pictures
3	Overview	1 = presence, 0 = absence	Whether there is company overview information in its “info” section of the profile page
4	Founded	1 = presence, 0 = absence	Whether there is founding year information in its “info” section of the profile page
5	Headquarters	1 = presence, 0 = absence	Whether there is company headquarters location information in its “info” section of the profile page
6	Mission	1 = presence, 0 = absence	Whether there is company mission information in its “info” section of the profile page
7	Admin	1 = presence, 0 = absence	Whether there is an administrator of the profile page
8	Fans	Number of fans as shown on profile page	
<b>Links and integration</b>			

9	Website	1 = presence, 0 = absence	Whether there is a link to a company's official Web site
10	Page	1 = presence, 0 = absence	Whether there is a link to other profile pages on Facebook which are owned by the company
11	Blog	1 = presence, 0 = absence	Whether there is a link to a brand's blog or there is a blog section on the profile page
12	RSS	1 = presence, 0 = absence	Whether there is an option for users to subscribe to a brand's RSS feed
13	Twitter	1 = presence, 0 = absence	Whether there is a link to a brand's Twitter account or there is a Twitter section on the profile page
14	MySpace	1 = presence, 0 = absence	Whether there is a link to a brand's MySpace account
15	YouTube	1 = presence, 0 = absence	Whether there is a link to a brand's YouTube account or there is a YouTube section on the profile page
16	Flickr	1 = presence, 0 = absence	Whether there is a link to a brand's Flickr account or there is a Flickr section on the profile page
17	OtherLinks	1 = presence, 0 = absence	Whether there is any other link or form of integration
<b>Online advertising</b>			
18	PrintAds	1 = presence, 0 = absence	Whether a brand publishes its print advertisements on its profile page
19	TVC	1 = presence, 0 = absence	Whether a brand published its TV commercials on its profile page
<b>Online MPR</b>			
20	Newsletters	1 = presence, 0 = absence	Whether a brand publishes a newsletters on its profile page
21	Career	1 = presence,	Whether a brand provides a section

		0 = absence	for or a link to a career application
22	Photos	1 = presence, 0 = absence	Whether a brand page has a photos section or not
23	PhotosNumber	Number of photos posted in the photos section	
24	BPhotos	Number of photos posted by a brand	
25	FPhotos	Number of photos posted by fans	
26	Videos	1 = presence, 0 = absence	
27	VideosNumber		Whether a brand page has a videos section or not
28	BVideos	Number of videos posted by brands	
29	FVideos	Number of videos posted by fans	
30	Events	1 = presence, 0 = absence	Whether a brand page has an events section or not
31	EventsNumber	Number of events	
32	Sponsorships	1 = presence, 0 = absence	Whether a brand publishes information about its sponsorships activity on its profile page

### Online sales promotions

33	Coupons	1 = presence, 0 = absence	Whether a brand offers any kind of coupons on its profile page
34	Contests	1 = presence, 0 = absence	Whether a brand has any kind of contests or sweepstakes on its profile page
35	OtherPromos	1 = presence, 0 = absence	Whether there is any other kind of sales promotion on the profile page

<b>Online relationship communications</b>			
36	Posts	Number of wall posts created only by a brand	Only include wall posts from August 15 <sup>th</sup> , 2009 to August 15 <sup>th</sup> , 2010
37	Likes	Total number of likes on all brand posts	
38	Comments	Total number of comments on all brand posts	
39	Polls	1 = presence, 0 = absence	Whether there is any poll on the profile page
40	PollsNumber	Total number of polls	
41	Participants	Total number of participants of all polls	
42	Discussions	1 = presence, 0 = absence	Whether a profile page has a discussions section
43	Topics	Total number of topics created in the discussions section	Only include topics created from August 15 <sup>th</sup> , 2009 to August 15 <sup>th</sup> , 2010
44	BTops	Number of topics created by a brand	
45	FTops	Number of topics created by fans	
46	Replies	Total number of replies to all topics	
47	BReplies	Number of replies created by a brand	
48	FReplies	Number of replies created by fans	
49	Applications	1 = presence, 0 = absence	Whether there is any application on the profile page.
50	ApplicationsNo	Number of	

		applications	
51	Wallpapers	1 = presence, 0 = absence	Whether the profile page provides any wallpaper for fans to download
52	Screensavers	1 = presence, 0 = absence	Whether the profile page provides any screensaver for fans to download
53	Softwares	1 = presence, 0 = absence	Whether the profile page provides any software for fans to download
54	OtherDL	1 = presence, 0 = absence	Whether the profile page provides any other downloadable contents for fans
55	OnlineStore	1 = presence, 0 = absence	Whether the profile page has an online store section
56	DealerInfo	1 = presence, 0 = absence	Whether the profile page provides any information about the dealer
57	PricingInfo	1 = presence, 0 = absence	Whether the profile page provides any information about product prices
58	Catalogue	1 = presence, 0 = absence	Whether there is any catalogue on the profile page

## Appendix 3: Facebook vanity URL

No.	Brand	Facebook vanity URL
1	Telstra	<a href="http://www.facebook.com/Telstra">http://www.facebook.com/Telstra</a>
2	Billabong	<a href="http://www.facebook.com/Billabong">http://www.facebook.com/Billabong</a>
3	Harvey Norman	<a href="http://www.facebook.com/HarveyNormanAU">http://www.facebook.com/HarveyNormanAU</a>
4	Australia Post	<a href="http://www.facebook.com/australiapost">http://www.facebook.com/australiapost</a>
5	Coca-Cola	<a href="http://www.facebook.com/cocacola">http://www.facebook.com/cocacola</a>
6	Microsoft	<a href="http://www.facebook.com/Microsoft">http://www.facebook.com/Microsoft</a>
7	Nokia	<a href="http://www.facebook.com/nokia">http://www.facebook.com/nokia</a>
8	McDonald's	<a href="http://www.facebook.com/McDonalds">http://www.facebook.com/McDonalds</a>
9	Google	<a href="http://www.facebook.com/Google">http://www.facebook.com/Google</a>
10	Toyota	<a href="http://www.facebook.com/toyota">http://www.facebook.com/toyota</a>
11	Disney	<a href="http://www.facebook.com/Disney">http://www.facebook.com/Disney</a>
12	Hewlett-Packard	<a href="http://www.facebook.com/HP">http://www.facebook.com/HP</a>
13	Mercedes-Benz	<a href="http://www.facebook.com/MercedesBenz">http://www.facebook.com/MercedesBenz</a>
14	Gillette	<a href="http://www.facebook.com/gillette">http://www.facebook.com/gillette</a>
15	Toyota	<a href="http://www.facebook.com/toyota">http://www.facebook.com/toyota</a>
16	Honda	<a href="http://www.facebook.com/Honda">http://www.facebook.com/Honda</a>
17	Sony	<a href="http://www.facebook.com/Sony">http://www.facebook.com/Sony</a>
18	Panasonic	<a href="http://www.facebook.com/Panasonic">http://www.facebook.com/Panasonic</a>
19	Lexus	<a href="http://www.facebook.com/lexus">http://www.facebook.com/lexus</a>
20	Nissan	<a href="http://www.facebook.com/Nissan">http://www.facebook.com/Nissan</a>
21	Movistar	<a href="http://www.facebook.com/movistar.es">http://www.facebook.com/movistar.es</a>
22	El Corte Ingles	<a href="http://www.facebook.com/elcorteingles">http://www.facebook.com/elcorteingles</a>
23	Mango	<a href="http://www.facebook.com/mango.com">http://www.facebook.com/mango.com</a>
24	Nescafé	<a href="http://www.facebook.com/Nescafe">http://www.facebook.com/Nescafe</a>
25	Nestlé	<a href="http://www.facebook.com/Nestle">http://www.facebook.com/Nestle</a>
26	Credit Suisse	<a href="http://www.facebook.com/creditsuisse">http://www.facebook.com/creditsuisse</a>
27	Swisscom	<a href="http://www.facebook.com/Swisscom">http://www.facebook.com/Swisscom</a>
28	Omega	<a href="http://www.facebook.com/omegawatches">http://www.facebook.com/omegawatches</a>

29	Lindt	<a href="http://www.facebook.com/lindtswitzerland">http://www.facebook.com/lindtswitzerland</a>
30	Acer	<a href="http://www.facebook.com/Acer">http://www.facebook.com/Acer</a>
31	Trend Micro	<a href="http://www.facebook.com/Trendmicro">http://www.facebook.com/Trendmicro</a>
32	Asus	<a href="http://www.facebook.com/ASUS">http://www.facebook.com/ASUS</a>
33	HTC	<a href="http://www.facebook.com/HTC">http://www.facebook.com/HTC</a>
34	Giant	<a href="http://www.facebook.com/giantbicycles">http://www.facebook.com/giantbicycles</a>
35	ZyXEL	<a href="http://www.facebook.com/pages/ZyXEL/273830560092">http://www.facebook.com/pages/ZyXEL/273830560092</a>
36	Transcend	<a href="http://www.facebook.com/TranscendTW">http://www.facebook.com/TranscendTW</a>

## Appendix 4: Brand wise Number of fans

<b>Brand</b>	<b>Number of fans</b>
Telstra	4,617
Billabong	269,940
Harvey Norman	1,614
Australia Post	373
Coca-Cola	10,828,403
Microsoft	143,735
Nokia	1,172,710
McDonald's	2,809,769
Google	1,685,789
Toyota	162,617
Disney	5,937,689
Hewlett-Packard	89,920
Mercedes-Benz	483,330
Gillette	304,903
Toyota	162,617
Honda	452,612
Sony	213,518
Panasonic	20,920
Lexus	105,309
Nissan	62,187
Movistar	28,701
El Corte Ingles	21,531
Mango	696,041
Nescafé	650,217
Nestlé	111,083
Credit Suisse	2,024
Swisscom	21,794
Omega	8,119
Lindt	577
Acer	31,521

Trend Micro	3,880
Asus	33,947
HTC	203,689
Giant	20,701
ZyXEL	625
Transcend	10,115
Minimum	373
Maximum	10,828,403
Mean	743,237.42
S.D.	2,045,542.049

## Appendix 5: Statistics of Photos, Videos, and Events

<b>Brand</b>	<b>Number of photos</b>	<b>Brand published photos</b>	<b>Fans published photos</b>	<b>Number of videos</b>	<b>Brand published videos</b>	<b>Fans published videos</b>	<b>Number of events</b>
Telstra	43	43	0	1	1	0	0
Billabong	1,488	1,313	175	22	16	6	3
Harvey Norman	58	58	0	8	8	0	14
Australia Post	4	4	0	0	0	0	0
Coca-Cola	7,944	534	7,410	155	9	146	269
Microsoft	404	404	0	50	33	17	8
Nokia	3,225	131	3,094	50	12	38	2
McDonald's	4	4	0	5	5	0	0
Google	150	150	0	2	2	0	0
Toyota	3,806	94	3,712	46	13	33	1
Disney	3,367	116	3,251	5	5	0	2
Hewlett- Packard	137	61	76	11	1	10	11
Mercedes- Benz	6,997	372	6,625	86	21	65	0
Gillette	436	54	382	55	32	23	1
Toyota	3,806	94	3,712	46	13	33	1
Honda	8,875	48	8,827	98	16	82	1
Sony	520	516	4	61	61	0	4
Panasonic	368	188	180	13	8	5	0
Lexus	818	154	664	37	29	8	4
Nissan	1,141	176	965	27	15	12	2
Movistar	256	254	2	29	27	2	4

El Corte Ingles	255	255	0	20	20	0	1
Mango	1,081	688	393	7	7	0	27
Nescafé	227	11	216	26	6	20	1
Nestlé	28	28	0	0	0	0	1
Credit Suisse	33	33	0	0	0	0	1
Swisscom	782	777	5	31	31	0	82
Omega	415	241	174	29	26	3	49
Lindt	3	2	1	0	0	0	0
Acer	56	56	0	2	2	0	0
Trend Micro	5	5	0	0	0	0	2
Asus	1,834	1,636	198	18	18	0	3
HTC	1,096	746	350	16	6	10	5
Giant	1,768	616	1,152	15	7	8	4
ZyXEL	66	64	2	7	7	0	0
Transcend	309	303	6	2	2	0	20
Minimum	3	2	0	0	0	0	0
Maximum	8,875	1,636	8,827	155	61	146	269
Mean	1,439.03	284.14	1,154.89	27.22	12.75	14.47	14.53
S.D.	2,279.794	374.244	2,265.933	32.927	13.164	29.331	46.454

## Appendix 6: Statistics of Polls

<b>Brand</b>	<b>Number of polls</b>	<b>Participants</b>	<b>Participants per poll</b>
Telstra	0	0	0
Billabong	0	0	0
Harvey Norman	0	0	0
Australia Post	0	0	0
Coca-Cola	21	142818	6801
Microsoft	5	850	170
Nokia	0	0	0
McDonald's	4	171094	42773.5
Google	0	0	0
Toyota	0	0	0
Disney	0	0	0
Hewlett-Packard	0	0	0
Mercedes-Benz	0	0	0
Gillette	1	97	97
Toyota	0	0	0
Honda	2	156760	78380
Sony	4	91349	22837.25
Panasonic	0	0	0
Lexus	0	0	0
Nissan	1	151	151
Movistar	4	70643	17661
El Corte Ingles	0	0	0
Mango	0	0	0
Nescafé	0	0	0
Nestlé	0	0	0
Credit Suisse	0	0	0
Swisscom	0	0	0
Omega	0	0	0

Lindt	0	0	0
Acer	0	0	0
Trend Micro	0	0	0
Asus	1	156	156
HTC	3	18640	6213
Giant	0	0	0
ZyXEL	0	0	0
Transcend	0	0	0
Minimum	0	0	0
Maximum	21	171,094	78,380
Mean	1.28	18,126.61	4,867.771
S.D.	3.669	46,628.769	15,154.783

## Appendix 7: Statistics of Discussions

<b>Brand</b>	<b>Topics</b>	<b>Brand-created topics</b>	<b>Fan-created topics</b>	<b>Replies</b>	<b>Brand replies</b>	<b>Fan replies</b>	<b>Replies per topic</b>
Telstra	23	3	20	81	18	63	3.52
Billabong	2	0	2	3	0	3	1.5
Harvey Norman	1	1	0	12	1	11	12
Australia Post	0	0	0	0	0	0	0
Coca-Cola	443	2	441	3003	67	2936	6.78
Microsoft	82	0	82	962	7	955	11.73
Nokia	297	1	296	1506	38	1468	5.07
McDonald's	0	0	0	0	0	0	0
Google	0	0	0	0	0	0	0
Toyota	0	0	0	0	0	0	0
Disney	0	0	0	0	0	0	0
Hewlett-Packard	51	1	50	375	1	374	7.35
Mercedes-Benz	0	0	0	0	0	0	0
Gillette	20	5	15	67	5	62	3.35
Toyota	0	0	0	0	0	0	0
Honda	31	0	31	88	0	88	2.84
Sony	21	3	18	52	3	49	2.48
Panasonic	25	0	25	93	5	88	3.72
Lexus	0	0	0	0	0	0	0
Nissan	15	0	15	111	3	108	7.4
Movistar	0	0	0	0	0	0	0
El Corte Ingles	13	4	9	24	4	20	1.85
Mango	3	0	3	5	0	5	1.67
Nescafé	8	2	6	22	4	18	2.75
Nestlé	13	0	13	98	0	98	7.54
Credit Suisse	0	0	0	0	0	0	0
Swisscom	0	0	0	0	0	0	0

Omega	0	0	0	0	0	0	0
Lindt	2	2	0	3	2	1	1.5
Acer	0	0	0	0	0	0	0
Trend Micro	0	0	0	0	0	0	0
Asus	106	8	98	698	28	670	6.71
HTC	480	1	479	2442	1	2441	5.09
Giant	38	3	35	139	6	133	3.66
ZyXEL	1	1	0	4	1	3	4
Transcend	0	0	0	0	0	0	0
Minimum	0	0	0	0	0	0	0
Maximum	480	8	479	3003	67	2,936	12
Mean	46.53	1.03	45.5	271.89	5.39	266.5	2.848
S.D.	114.957	1.781	114.657	680.632	13.297	670.674	3.369

## Appendix 8: Brand Wise Posts on Wall

Brand	Posts on wall
Telstra	163
Billabong	510
Harvey Norman	198
Australia Post	10
Coca-Cola	160
Microsoft	511
Nokia	90
McDonald's	20
Google	493
Toyota	115
Disney	175
Hewlett-Packard	192
Mercedes-Benz	148
Gillette	113
Toyota	115
Honda	98
Sony	509
Panasonic	296
Lexus	105
Nissan	417
Movistar	169
El Corte Ingles	133
Mango	492
Nescafé	107
Nestlé	97
Credit Suisse	17
Swisscom	118
Omega	104

Lindt	2
Acer	49
Trend Micro	371
Asus	659
HTC	184
Giant	537
ZyXEL	47
Transcend	299
Minimum	2
Maximum	659
Mean	217.31
S.D.	181.773