Attitude towards online social network service quality and online social network brand personality
(Case study LinkedIn)

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Abstract: The Internet and, in particular, the web has enabled a communication revolution. Online social networks have emerged and become increasingly popular. To survive in their competitive environment, online social networks should pay enough attention to their e-services quality. High e-service quality is critical to have favor brand personality. E-service quality is a determining factor of attitude toward brand personality. This study presumes that there is a significant relationship between user's attitude towards social network services and brand personality of them. To test this main hypothesis and some others, this study applied LinkedIn as the large social network for businesses and individual professionals by sample size of 384, and applies the proposal model of measuring e-service quality of social network services and their brand personality as virtual web-based brands. The hypotheses analyses by SEM method and the results proved assumptions.

1. Introduction

In recent years, new aspects of communications have emerged. These communications create and develop within internet environment and through virtual networks which called online social networks (Neumann et. al, 2005). As a fact, most people are members of different social networks according to their characteristics, needs and desires. These led increasing numbers of emerging and developing online social networks which offering different features and different services, such as LinkedIn (Bonera, 2011). Online Social networks introduce a new quality of social participation in online environments through identification and motivation to contribute to the community, to share experience and discover expertise in the organization.

To survive in their competitive environment, online social networks should pay enough attention to their e-services quality. In the twenty-first century e-service has experienced a stage of steady growth, both in academic and empirical researches (Udo et al. 2010).

In the other hand, reuse, return, repurchase is critical factor of online transactions and communications and the challenge which attracts managers and marketers. What, then, keeps consumers or better to say users loyal to an online service? E-commerce research answered from different aspects, including explanations based on service quality, benefits of online shopping, trust, and satisfaction (Fang et al. 2011). E-services quality as focused in this study is investigated as one main factor that determines the success or failure of online companies such as online social networks. In the other word, one new challenge is the quality of the electronic service provided by company web site and other electronic media. The quality of company's e-services is the key indicators of how well a company can likely satisfy its customers, make them loyal and influence on their attitude (Udo et al. 2010).

What seems critical to have optimum brand personality, is high e-service quality. Creating favor brand personality helps company to capture and maintain its customers. Brand personality is the important dimensions of brand equity as an important factor of evaluating the company. Most companies aspire to build a global brand. Although Brands are not animate objects, yet users often consider brands as having human characteristics, in which called a brand personality (Aaker, 1996, Aaker, 1997, Batra et al.,

1993). Brand personality is thought as a relatively enduring predisposition about subject's image or trait characteristics just like human personality (Fetscherin et. al., 2010). Consumers eagerly assigned human personality traits to brands (Freling and Forbes, 2005). The idea that brand personality contributes in a significant way to the user brand relationship can be vital to develop a powerful brand strategy (Hayes et al., 2006). To deploy company brand, the perception of the user's mind should feed back to brand management, so it is important for company to pay enough attention to their brand personality (Wong and Merrilees, 2005) and to determine the main factors which influence on it, like users' attitudes, as indicators of the effectiveness of quality (Jun and Lee, 2007). Therefore, marketing practitioners concentrate on building "an obvious and distinctive brand personality" (Gouteron, 2008).

The main of this study is to investigate the relationship between user's attitude and brand personality of online social networks, as popular universal phenomena. To achieve this goal, by choosing LinkedIn as a world's largest professional network, the authors considered e-service quality as an antecedent of user's attitude. To fill the gap related to the lack of any scale to assessing social networks service quality, this study provides a proposal comprehensive scale which analyzing all aspects of online social networks such as: Technology features, Communication features, Special features, and User-based features. To analysis the social brand personality of social networks, the authors, suggest a model of assessing virtual brand personality such as LinkedIn. This model involves these factors: Sincerity, Excitement, Competence, manner, and flexibility. SEM method is applied to investigate the proposal model of this study and to prove the hypotheses.

2. Theoretical framework
2.1. Online Social media

The Internet and, in particular, the web has enabled a communication revolution: the ability to send and retrieve information everywhere has changed the way we work and live. Online social networks have emerged and become increasingly popular (Neumann et. al, 2005).

Online Social networks introduce a new quality of social participation in online environments through identification and motivation to contribute to the community, to share experience and discover expertise in the organization.

They are a recent trend in the development of content rich web portals. Social networks connect and present people in online communities based on data about them, stored in user profiles. User profiles determine the way individuals are able to access content or view other users on the network (Neumann et. al, 2005).

Users achieve personal goals as well as goals shared with other members in the social sites (Boulaire et. al, 2008). Social network sites allow individuals to construct a public or semi-public profile within a bounded system; to articulate a list of other users with whom they share a connection, and to "view and traverse their list of connections and those made by others within the system" (Boyd and Ellison, 2007, p. 211). On larger social network sites, individuals are typically not looking to meet new people but are more interested in managing relationships by maintaining contacts with old friends who are already part of their extended social network (Boyd and Ellison, 2007; Hart et al., 2008).

The social network sites can be seen as alternative communication tools which support existing relationships and activities in a fun and colorful way that can enrich the users' experiences (Ofcom, 2008).

Social networks as a Social media may be defined as media designed to be disseminated through social interaction between individuals and entities such as organizations. Typically they are created using highly accessible (easy to get to) and scalable (can be used to reach large numbers) publishing techniques (Brogan, 2010; Zarella, 2010). Social media use internet and web-based technologies to transform broadcast media monologues (one to many) into social media dialogues (many to many). They support the democratization of knowledge and information, transforming individuals from mere content consumers into content producers. Kaplan and Haenlein (2010) describe social media as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of user-generated content" (Reyneke, 2011).

But, why did they emerge? For sociologists, the resulting online community is thus a postmodern aggregate of daily life, feelings and imagination that represents a desire to be together and share emotions (Maffesoli, 1988; Merle, 2003; Boulaire et. al, 2008).

As a fact the aim of the Social networks as online applications, platforms and media is to facilitate interactions, collaborations and the sharing of content (Universal Maccann International, 2008, p. 10).

The important advantages of interactions through social network media is facilitation of "asynchronous, immediate, interactive, low-cost communications" (Miller et al., 2009, p. 306).

2.2. Online Social media service quality

A social network service focuses on building online communities of people who share interests and/or activities, or who are interested in exploring the interests and activities of others. Social network services, as advanced Web 2.0 applications, have become a major interest for the Information Systems research community (Shin, 2010). Most social network services are online based and provide a variety of ways for users to interact. They are being used regularly by millions of people, and it now seems that social networking will be an enduring part of everyday life (Dwyer, 2007).

As online services become increasingly global, it is important for international marketers to understand those factors that influence consumer use of international social network service sites. Understanding what motivates global consumers to use social network services can help international marketers to design more effective international social network service sites that target foreign customers.

The nature of Social network services can set as electronic services.

"E-service" has recently become a popular research topic, with the growth of the e-commerce, and a number of published studies have offered a variety of conceptual definitions.

For example, Rowley (2006) has conceptualized e-service to embrace all kinds of interactions: "service delivery and customer support as well as information provision" (Rolland et al., 2010).

E-service quality emerges as a strategic issue, determinant of competitive advantage and factor in the long-term success of firms (Parasuraman et al., 2005). Importantly, effective management of e-service leads to deliver and maintain high quality is crucial for social networks sites which can increase customer satisfaction and customer loyalty (Carlson et al., 2011).

However, despite the importance of E-service quality, the conceptualization and measurement of it are still at a nearly phase of development and studies in this field are still somewhat limited and disparate (Ladhari, 2010).

There are just A few attempts which done to understand and measure e-service quality (Ladhari, 2009). Most of these efforts have concentrated on online shopping with limited attention to other service contexts. Some studies researched in dimensions of e-service quality and concluded that most measures of e-service quality are different in dimensions and attributes (Katono, 2011). But no research has studied social network services quality.

Most of Studies which have referred modeling e-service quality focused on its dimensions (e.g. ease-of-use, information quality, responsiveness) as e-service quality construct rather than as antecedents to the consumer's overall evaluation of service quality (Carlson et al., 2011). But in this study, these dimensions are used as antecedents of customer attitude.

Loiacono et al. (2000) developed a scale called WEBQUAL with 12 dimensions: informational fit to task; interaction; trust; response time; design; intuitiveness; visual appeal; innovativeness; flow; integrated communication; business processes, and substitutability (Zeithaml et al., 2002). This tool has become one of the popular online service quality measurements. Some dimensions gained from this tool.

For other service dimentions of this study such instruments which developed to assess the quality of an Internet portal, such as E-S-QUAL, SiteQUAL, UPWQ (user-perceived web quality), and QES were considered. E-S-QUAL and SiteQUAL are related to the online shopping context but In particular, UPWQ measures perceived quality of general purpose Internet-based service from the user perspective. This instrument is suitable enough for measuring the e-service quality of some Internet-based applications for web sites not involving online shopping (Liao et al., 2011).

The some other service dimensions used in this study gained from an extensive literature review as shown in table 1. By considering online social network services as an e-service and investigating preferences of consumers of these kinds of e-service, the researchers chose and applied important dimensions which were relevant enough to e-service quality of social networks. Considering all aspects of e-service quality of social networks such as which referred to website of company, online services of website, advantages of using online services and so on was the main aim of this study. These dimensions which corrected by professional marketers, socialists experts and professors, can be widely used for evaluating e-services quality by others studies. Table 1 shows these dimensions.

2.3. Attitude towards Online Social media by TPB
2.3.1. Attitude

Attitudes are conventionally considered as an indicator of the effectiveness of quality (Jun and Lee, 2007). Attitude means "a learned predisposition to respond to an object in a consistently favorable or unfavorable way" (Wilkie, 1994). It plays an important role in consumer behavior. Indeed, Attitudes cannot be observed directly because they are mental positions and marketers must try to determine them through research measures (Huang, 2004).

Table 1. Online social network services

Feature types	factors	references
Technology features	Ease of use	Bressolles (2010), Ladhari, (2010), Rolland (2010), Chiu (2009)
	Web design	Ladhari, (2010, 2009)
	Security	Aladwani (2006), Bressolles (2010), Chang (2011), Ho (2009), Lee (2011), Rolland (2010)
Communication features	Communications	Bressolles (2010), Chang (2011), Rolland (2010)
	Information	Aladwani (2006), Bressolles (2010), Carlson (2011), Chang (2011), Fang (2011), Ladhari (2010), Lee (2011), Rolland (2010) ,Udo (2010), Maditinos (2010)
Special features	Personalization	Marketing experts
	Entertainment	Chang (2011), Rolland (2010)
	Reliability	Bressolles (2010), Carlson (2011), Lee (2011)
	Attraction	Marketing experts
User-based features	Opportunity creating	Marketing experts
	Choosing and preferring	Marketing and social experts
	Emotion	Social experts

According to Ajzen (1985), "an individual is more likely to undertake a certain behavior if he/she has a positive attitude toward undertaking the behavior". Attitude role is used in making decisions, in understanding, and in interacting with environment. The extent to which attitudes predict behavior is different and depends on the strength of the attitude. As Tenbult (2008) supposed people's attitudes become stronger when people are frequently exposed or are highly involved with an attitude-object, or when they have frequently expressed their attitude. Strong attitudes are highly influenced by people's inter- and intra-attitudinal structures (Tenbult et. al., 2008). For investigating attitudes of social networks users, this study applied services quality as its antecedents and implemented TPB to relate attitude to brand personality.

2.3.2. Theory of planed behavior

Theory of planned behavior underlying the effort of TRA has been successfully proved in predicting and explaining human behavior across various information technologies (Ajzen, 2002, 1991). According to TPB, a person's actual behavior in performing certain actions can be directly influenced by his or her behavioral intention and, in turn, can be jointly determined by his or her attitude, subjective norms and perceived behavioral controls toward performing the behavior (Lee, 2008). Ajzen conceptualized that "Attitude (A) explains a person's favorable or unfavorable assessment regarding the behavior in question. Furthermore, a favorable or unfavorable attitude directly influences the strength of the behavior and beliefs regarding the likely outcome. Subjective norm (SN) expresses the perceived organizational or social pressure of a person who intends to perform the behavior in question. In other words, the subjective norm is relative to normative beliefs about the expectations of other people (reference group). It can be depicted as individual's normative belief (nbi) concerning a particular referent weighted by their motivation to comply with that reference. Perceived behavioral control (PBC) reflects a person's perception of the ease or difficulty of implementing the behavior in question. It concerns beliefs about the presence of control factors that may facilitate or hinder their performing for the behavior. Thus, control beliefs about resources and opportunities are the underlying determination of perceived behavioral control and can be depicted as the control beliefs (cbi) weighted by perceived power of the control factor (pi) in question " (Azjen, 1991).

In this study, family and friends were considered as reference group which can influence on users attitudes. For evaluating perceived control behaviors, the ability and knowledge of user, ability to stop or continue using social network and, environmental restrictions were considered.

2.4. Brand personality

Human beings need to personify objects in order to improve their interactions with the intangible world (Plummer, 1984). They have a tendency to attribute positive traits to products through anthropomorphism in order to improve their feeling of comfort and familiarity, and to reduce feelings of risk during using them. It is called "anthropomorphism" which Guthrie (2008) defined as "the transmission of human characteristics to non-human things and events".

On the other hand, According to theories of animism, brands can possess their own personality, too. Animism believes that all natural and inanimate or even intangible things have spirit and can influence human events (Cambridge advanced learner's dictionary).

Therefore, "The brands" like humans, may possess distinct personality characteristics (Plummer, 1985). Brand personality is one of the core dimensions of brand equity (Aaker, 1996), which is related to how people tend to contribute a "pseudo" human

personality to the brand itself, rather than to what the brand really does (Keller, 1993).

Brand personality concept has appealed marketing scholars in last decades (Okazaki, 2006). It contains many advantages for marketers including an increase in consumer preference and usage, an increase in consumer's trust and loyalty, and the ability to produce emotional responses in consumers (Guthrie et. al., 2008). Brand personality can provide characteristics used to market a brand. It is applied and improved by advertisers in hopes that consumers will associate with their brand regarding to some specific adjectives or imageries (Guthrie et. al., 2008).

Brand personality, defined as all personality traits applied to characterize a person and related to a brand, is a concept within the field of relational marketing which can help to understand the development and maintaining of relations between brands and consumers. In addition it mentions how those relationships can influence consumer behaviour (Gouteron, 2008).

Although there are many definitions of brand personality, none of them is generally adopted (Lombart, 2010). Several researchers have concentrated on the personification of a brand and to the use of human metaphor, as they supposed that it was the best way to conceptualize the complexity of a concept reflected in brand personality aspects (Davies et al., 2001; Keller and Richey, 2006; Okazaki, 2006).

In 1997, Aaker defined brand personality as "the set of human characteristics associated with a brand" (Aaker, 1997).

Ferrandi and Valette-Florence (2002) defined brand personality as "all personality traits used to characterize the individual and associated with a brand". This definition will be applied in this research because it provides the defining brand personality in the way that is matched to the aim of this study.

Brand personality can be applied to express one's ideal self or different versions of the self, as well as, one's perceptions and evaluations of the brand. For example, brand personality can be used to an individual's own personality (Guthrie et. al., 2008). Brand personality mention symbolic meaning or emotional value that can contribute to consumers' brand preferences and can be more stable than functional attributes (Rajagopal, 2006).

Previous research has suggested that consumers prefer specific brands when the brand personality parallels the consumer's own personality or the personality they tend to achieve (Yi Lin, 2010; Carlson et. al., 2009). Brand personality also indicates how consumers perceive and judge the brand itself and value certain characteristics over others, which can finally influence their brand choice.

In the most comprehensive study to date, Aaker supposed a theoretical framework by enhancing the "Big Five" composition from human psychology and by isolating the dimensions of sincerity, excitement, competence, sophistication and ruggedness with several sub-categories (Aaker, 1997). Each of these five dimensions includes several corresponding adjectives. Mainly, positive attributes are listed, because the scale was assumed to be used to determine "the extent to which brand personality affects the probability that consumers will approach (versus avoid) products" (Aaker, 1997, p. 350).

The Brand Personality Scale (BPS) (Aaker, 1997) is used in this study because it enables researchers to recognize the symbolic meanings of brands as if they were people. A large collection of brand personality studies based on this particular scale suggests that both marketing academia and professionals are eager to utilize this framework widely (Aaker, 1997; Aaker, Benet-Martinez and Garolera, 2001). Some researchers constructed a country-specific brand personality scale, paying attention to their countries conditions and requirements (Geuens et al., 2009).

Table 2: Brand personality dimensions for virtual brand

Sincerity	down-to-earth: down-to-earth, fast, easy use
	Honest: honest, confident
	Creative: energized, creative
	Cheerful: cheerful, sentimental, friendly
Excitement	Up to date: up to date, exciting
	pleasant: new environment, pleasant environment
	Imaginative: imaginative, unique
	independent: independent, contemporary
Competence	Reliable: reliable, secure
	technical: technical, corporate
	Successful: successful, leader
manner	upper class: upper class, appealing, good looking
	Lovely: lovely, feminine
flexibility	flexible: flexible, changeable

In addition, The Aaker (1997) brand personality scale is used widely to traditional, tangible brands; meanwhile social network brand is a virtual brand which the multi-faceted dimensions of Aaker brand personality may not directly apply. Consequently, this article applied Aaker BPS and developed it for virtual web-based brands such as social networks. Therefore,

the most acceptable facets of Aaker BPS in a social network brand context were chosen to change and improve in the pilot studies. Correcting the scale and determining the variables were done by professional marketers, socialist's experts and professors do to eliminate some variables or add in some others within Aaker model. Then, by Collecting 50 questionnaires from sample group, analyzing and refining the measurement of the models was done. Finally the BPS dimensions achieved as shown it in table 2 for social network brand. The research purpose was to conduct a scale which can be widely used for virtual brand personality. To gain this goal, comprehension, unambiguity, and simplification of the final model considered.

3. Research hypotheses and conceptual model of research

The main aim of this study is to relate user attitude to brand personality of social networks. To gain this purpose, social network services as perceptions of user, applied to assess user's attitude. For measuring e-service quality of social networks the proposal scale of this research was used. For measuring brand personality brand personality model of Aaker was modify to construct a brand personality model which can be prepare for social network brand personalities. Another aim of this study is to fill the gap in the area of attitude towards social networks and their brand personalities and in the area of assessing their wide services. Previous researches showed that brands with favorable brand attitude have favorable competent ratings (kim, 2000) and the smaller the difference between expectation and perception of service quality is, the more the consumers will show their loyalty in post-purchase behavior (Lin, 2009). Also, Brand personality will have a positive influence on product evaluations (Freling et. al., 2005). wang (2008) revealed that brand personality exerts significant positive main affects on purchase intention (wang et. al., 2008). Klabi (2011) proved that brand personality influences and is influenced by emotional attitudes within consumers (Klabi et. al, 2011).

In conclusion, as it discussed above, it is presumed that there is a significant relationship between attitude towards social networks and brand personality of them. This study is conducted to examine this hypothesis on LinkedIn brand as a virtual web-service brand. Other purposes of this study are to indicate the affects of subjective norms and perceived control behaviors on attitudes towards social networks. This all are done through measuring different dimensions of social network services. Figure 1 shows the conceptual model of this research. Following Hypotheses have been conducted to investigate the relationship between attitude towards social networks and brand personality of social networks:

H1: social network services influence on attitude towards social networks.

H2: subjective norms influence on attitude towards social networks.

H3: perceived control behaviors influence on attitude towards social networks.

H4: There is a strong relationship between attitude towards social networks and brand personality of social networks.

4. Research methodology
4.1. Case study: LinkedIn

LinkedIn Corporation (LinkedIn) is a professional social network on the Internet with more than 150 million members in over 200 countries and territories. LinkedIn is a large social network for businesses and individual professionals. The website caters to professionals and companies in all industries all over the world. Through the Company's platform, members are able to create, manage and share their professional identity online, build and engage with their professional network, access shared knowledge and insights, and find business opportunities. Its platform provides members with solutions, including applications and tools, to search, connect and communicate with business contacts, learn about career opportunities, join industry groups, research organizations and share information (www.google.com/finanace). Enterprises and professional organizations that use its solutions include large corporations, small- and medium-sized businesses, educational institutions, government agencies, non-profit organizations and other similar entities. As of December 31, 2011 (the end of the fourth quarter), professionals are signing up to join LinkedIn at a rate that is faster than two new members per second. The company is publicly held and has a diversified business model with revenues coming from hiring solutions, marketing solutions and premium subscriptions (www.press.linkedin.com/about).

4.2. Research procedure and sampling

This study adopted structural equation model (SEM) in the data analysis. SEM includes two stages: measurement model analysis and structural model analysis, which both was applied in this study. For the intended structural equation modeling (SEM), the power of the test is dependent upon the number of specified parameters and the sample sizes. One of the most important advantages of using SEM is ability to test good fitness of model by using not large sample size.
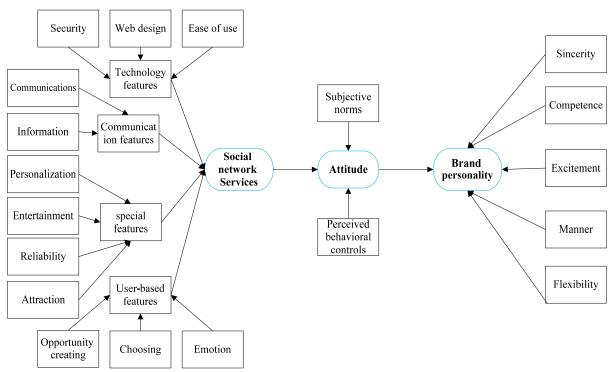
Figure1. Conceptual model

Table 3. Demographic statistics data

gender	Female			Male	
	39%			61%	
education	Lower than B.A.	B.A.	M.A.	PhD.	Higher than PhD.
	15%	31%	40%	9%	5%
Age	Less than 25	25-35	35-45	45-55	More than55
	12%	35%	27%	18%	8%
Years of using LinkedIn	1 year	2 years	3 years	4 years	More than 4 years
	23%	36%	18%	13%	10%
The Most Applications of Google	connections	Find or post job	email	news	others
	47%	25%	22%	3%	3%

As of February 9, 2012, LinkedIn operates the world's largest professional network on the Internet with more than 150 million members in over 200 countries and territories (www.press.linkedin.com/about). To determine the sample size, Morgan table was used which proposes that the proper sample size for more than 100,000,000 is 384 in 95% (Krejcie & Morgan, 1970). As the results of pilot study showed, HOELTER, the essential size of sample, was 196 but the authors preferred to consider bigger sample size (Byrne, 2010). The electronic questionnaires sent randomly to

the 450 LinkedIn members, by emails. Table 3 shows demographic information of the participants.

4.3. Scale and measurement

This survey utilized a questionnaire designed to collect data regarding attitude towards social networks and brand personality of social networks. The questionnaire had three major parts. The first part, adapted from different studies, measured the social network services quality. For the second part the authors used virtual brand personality dimensions (which provided in brand personality part of this research) as questions. In the third part the participants' demographic data were collected, such as gender, age, education, duration of using LinkedIn and LinkedIn the most applications. All items in the questionnaire were measured on a five– point Likert types of scale anchored from "strongly disagree" (1) to "strongly agree" (5). To analysis the validity and reliability of the questionnaire, after experts and professors confirms, the pilot test was hold by 50 participants. The questions of each dimension were analyses by factor analysis and Cronbach's alphas. Finally the proved validity and reliability questionnaire sent to 450 LinkedIn members, randomly.

4.4. Measurement model estimation

To assess the measurement model, exploratory factor analysis (EFA) is performed separately on each construct to confirm scale

dimensionality. Then, Items with factor scores of less than 0.3 are eliminated and the items retained for each construct are tested for Cronbach's α. The result of the exploratory factor analysis of this study showed that all of the factor loadings of conformity and satisfaction's scale are higher than 0.3, so no items was deleted (the inappropriate factors were eliminated in pilot study). Measurement model assessed with Cmin/df, goodness of fit index (GFI) root mean square error of approximation (RMSERA) and comparative fit index (CFI). Amos graphics.18 used to estimate all of measurement model. All fit indices fall within acceptable ranges as shown in table 4(Byrne, 2010):

Table 4. Goodness Indicates of measurement model

Main dimensions	MIN	GFI	GFI	TFI	MSEA
Virtual brand personality	19	/95	/88	/95	0/044
Online social network services	17	/96	/89	/93	0/05

Examining construct validity, all factor loadings in the Construct Factor Analysis for the total measurement model were statistically significant (with all t values at $p < 0.05$), demonstrating convergent validity. Construct indicators show high Reliability (Cronbach's alphas range from 0.69 to 0.92), and indicates strong internal consistency (Byrne, 2010) as the table 5 indicates. A total Cronbach's alpha was 0.82.

Table 5. Factor loadings and Cronbach's alpha

Factors	Factor loadings	Cronbach's alpha
Technologies	0/81	0/78
Communications	0/84	0/69
Special features	0/82	0/81
User-based	0/77	0/74
Sincerity	0/81	0/79
Competence	0/85	0/81
Excitement	0/72	0/77
Manner	0/64	0/83
flexibility	0/84	0/92

5. Data analysis and Test of structural model

This study adopted structural equation model (SEM) in the data analysis. After the measurement model was analyzed, the conceptualized model of research ran as a structural model to test the hypothesis regarding to relationship between attitude towards LinkedIn and brand personality of LinkedIn. The method of maximum likelihood estimation in Amos Graphics.18 software used to analyze data and hypotheses testing.

To assess the proposed model's fit, the overall model Cmin or chi-square, the Tucker – Lewis index (TLI), the comparative fit index (CFI), and the root

mean square error of approximation (RMSEA), goodness of fit index (GFI) was used (Byrne, 2010).

After refining the initial structure model, all of the goodness of fit indexes were within acceptable range and indicate that the model of the research has a good fitness (Byrne, 2010). In order to test the hypotheses and casual path, the maximum likelihood methods have been used (See table 6).

Table 6. Goodness Indicates of structural Model

Indicators	CFI	GFI	RMSEA	TLI	P
values	0.953	0.97	0.03	0.93	0.3

6. Results and Discussions

To test the hypotheses, the conceptualized fit model of research ran as a structural model regarding to relationships between attitude towards LinkedIn and brand personality of LinkedIn. The method of maximum likelihood estimation in Amos Graphics.18 software was used to analyze data and hypotheses testing.

As H1 predicted online social network services quality influence on attitude towards social networks, strongly by the standard regression weights of 0.81. It shows that High quality services can improve the attitude. The authors considered e-services quality in such dimensions: Technology features, Communication features, Special features, and User-based features. This model can be used by marketers and managers to make a positive attitude towards online social networks. Some Previous study proved the relationship between e-services quality and customer attitude, too. For example, Aladwani (2006) found that Specific content quality and appearance quality have relatively stronger association with consumers' attitudes towards the web site.

As H2 assumed subjective norms influence on attitude towards social networks. 0.721standard regression weight shows that subjective norms can be one of the important factors which can determine positive or negative user's attitude. This is based on the experiences that friends, family members, colleagues or other acquaintances like reference group in the customer's social network have had using experiences with using online social networks, which they pass on to the customer in form of recommendations and narratives (Jayawardhena et. al., 2009). Previous studies supported the relationship between attitude and subjective norms in the online field although not in the online social networks area (Sztompka, 1999; Bauer et al., 2005).

H3 mentioned that perceived control behaviors influence on attitude towards social networks. Standard regression weight of 0.69 indicates that the more perceived control behaviors, the more positive

attitude it provides. This factor includes having the ability, knowledge and resources to use social networks (Tsang, 2004). Therefore, H3 was supported.

As H4 predicted there is a strong relationship between attitude towards social networks and brand personality of social networks (standard regression weights 0. 89). The authors considered brand personality dimensions as following: Sincerity, Excitement, Competence, manner, and flexibility. Previous researches showed that attitude is a good predictor of behavior and intention (kraft, 2005; Tsang et al, 2004; Soroa-Koury, 2010; Armitage, 2001; Wong, 2008). In this study by investigating the relationship between attitude and social networks brand personality (replacing the intention in TPB), the influence of attitude on brand personality was indicated (Wu, 2003; Hwang, 2011). Social networks Brands create and maintain a desired social identity. In that regard, brands are often viewed as an important means to communicate facets of one's identity and to interact with other people (Belk, 1988; Fournier, 1998; Muniz and O'Guinn, 2001). This desired social identity is Brand personality, defined as all personality traits applied to characterize a person and related to a brand which can help to understand the development and maintaining of relations between brands and consumers (Gouteron, 2008). In Conclude, positive attitude can lead suitable brand personality.

By assessing brand personality of LinkedIn, it revealed that users believe that LinkedIn is creative, unique and reliable. The regression weights for these factors are 0.92, 0.89, and 0.88.

Most users use LinkedIn for their connections, to create new or develop existence relationships. Most users are male and 25-35 years old with M.A graduation.

7. Conclusion

In recent years, new aspects of communications have emerged. These communications create and develop within internet environment and through virtual networks which called online social networks (McDonald, 2003).

Online Social networks introduce a new quality of social participation in online environments through identification and motivation to contribute to the community, to share experience and discover expertise in the organization. To survive in their competitive environment, online social networks should pay enough attention to their e-services quality. E-services quality as focused in this study is investigated as one main factor that determines the success or failure of online companies such as online social networks. What seems critical to have the optimum brand personality, is high e-service quality.

Brand personality is thought as a relatively enduring predisposition about subject's image or trait characteristics just like human personality (Fetscherin et. al., 2010). To deploy company brand, the perception of the user's mind should feed back to brand management, so it is important for company to pay enough attention to their brand personality (Wong and Merrilees, 2005) and to determine the main factors which influence on it, like users' attitudes, as indicators of the effectiveness of quality (Jun and Lee, 2007). Therefore, marketing practitioners concentrate on building "an obvious and distinctive brand personality" (Gouteron, 2008).

In this electronic world, the capability to identify brand personality is an important matter. Marketers believe that brand personality can be the important source of competitive advantages. By studying the papers in brand personality area, the authors concluded that there was a gap in investigating brand personality of virtual brands like social networks. In the other hand, no research investigated social network services as effective factor of attitude. Even though there are some studies, which has examined the relationship between attitude and brand personality, but none of them include a virtual- web based brand such as LinkedIn and none of them list social network services. To fill these gaps, this study was conducted by providing new model for assessing users' attitudes towards social network services and measuring brand personality of social networks in the frame of TPB.

Therefore, as the main purpose of this study, the authors investigated the relationship between attitude towards LinkedIn and brand personality of LinkedIn. To gain this goal the suggested two-part scale was applied for. The first part, by applying Aaker's brand personality model and correct and improve it by the experts' suggestions and through SEM method, provides the optimum model for analyzing virtual brand personality, such as LinkedIn. The authors considered brand personality dimensions as following: Sincerity, Excitement, Competence, manner, and flexibility. The second part, by studying previous researches, interviews with social networks users and experts, and improving validity and reliability of the scale through SEM method, provides a list of social network services which can be used for analyzing their qualities. These are: Technology features, Communication features, Special features, and User-based features.

Services quality as the antecedent of users' attitude, play a significant role in marketing.

By proposal model of assessing social networks service quality and social networks brand personality, the main hypothesis of this research was tested. The

results indicate that the relationship between attitude and brand personality of social network is significant. In the other hand, subjective norms such as references group play an important role as investigated. Perceived control behaviors are other influencers of attitude.

Therefore, marketers and managers of online social networks such as LinkedIn by increasing positive attitude towards their companies can achieve or create the demanded brand personality. As mentioned above, brand personality in competitive environment of online social networks, can be competitive advantage.

Managers and marketers can use the results of this study for improve the user's attitude. They can assess their e-service quality by the model of this study to determine which dimensions need to be paid more attention. In the other hand, developing the brand personality in the way that marketers prefer can obtain by improving positive attitude. Although we still can called Social networks emerged, they are popular enough to be the part of our lives, like LinkedIn with 150 million users all over the world. To satisfy and make these users loyal, social networks should implement marketing and branding tips.

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