

# THE CONTEXT AND CONTENT RELATED DETERMINANTS OF PROFESSIONAL SOCIAL NETWORKING SITE USAGE

A perceived value perspective

Master's Thesis Lauri Korhonen Aalto University School of Business Information and Service Management Spring 2019



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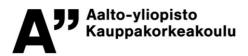
Previous studies of organisational or recreational use of social networking sites (SNSs) are unable to fully explain a setting where work and play aspects combine, as in the case of professional SNS. This thesis aims at complementing the current research on SNS usage determinants by including the parallel roles of individual and professional self in using a professional SNS, a topic still academically sparse.

This thesis applies the perceived value concept as a multidimensional determinant of SNS usage. Previous research has confirmed the relevance of perceived value in studying SNS continuance. In this study, perceived value is framed using context-content and individual-professional value scales for explaining the continuous usage of professional SNS. Theory on perceived consumption value (individual self) is complemented with social capital theory and the concept of resource pooling (professional self). Data from LinkedIn usage is then collected from users of different professional life stage. The research model and hypotheses are tested using PLS-SEM method.

The key findings of this study both complement and confirm previous SNS research. First, the results indicate that the bridging social capital is a major contextual determinant of professional SNS usage whereas bonding social capital bears no clear significance. This is opposing to what previous literature on recreational SNS has claimed. Second, the hedonic value seems to be a stronger determinant of professional SNS usage than utilitarian value – something not expected in the case of professional service, but parallel to what has been found on recreational SNS.

The perceived value approach brings a new perspective to SNS research and the robust empirical results verify the applicability of the individual-professional as well as the context-content scale of perceived value. The framework also shows substantial predictive capability which demonstrates its relevance for subsequent research.

**Keywords** social network site, continuous usage, perceived value, professional networking, social capital



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Sosiaalisen median tutkimus eri yhteisöpalvelujen (SNS, social networking site) viihteellisestä tai organisationaalisesta käytöstä on ollut puutteellista selittämään työ- ja viihdekäytön yhtälöä, joka korostuu erityisesti ammatilliseen käyttöön suunnattujen yhteisöpalvelujen kohdalla. Tämä pro gradu -työ pyrkii täydentämään nykyistä yhteisöpalvelujen tutkimusta tuomalla yhteen henkilökohtaisen ja ammatillisen näkökulman sekä tarkastelemalla erityisesti ammatilliseen käyttöön tarkoitettuja yhteisöpalveluita.

Tutkimuksessa hyödynnetään koetun arvon käsitettä (perceived value) sen eri ulottuvuuksissa. Koetun arvon on aiemmissa tutkimuksissa todettu vaikuttavan yhteisöpalvelujen käytön jatkumiseen. Tässä tutkimuksessa ammatillisten yhteisöpalvelujen kulutuksesta koettua arvoa kuvataan matriisimallilla, jossa akseleina toimivat kontekstin ja sisällön ulottuvuudet, sekä henkilökohtaisen ja ammatillisen minän ulottuvuudet. Tutkimus yhdistää mallissa kulutusarvojen teoriaa (henkilökohtainen minä) sekä resurssien kasautumisen ja sosiaalisen pääoman käsitteitä (ammatillinen minä). Tutkimusmallia ja -hypoteeseja arvioidaan LinkedIn-yhteisöpalvelun käyttäjistä kerätyllä aineistolla. Tutkimusmenetelmänä käytetään PLS-SEM-rakenneyhtälömallia.

Tutkimuksen päälöydökset sekä täydentävät että vahvistavat tähänastista yhteisöpalveluiden tutkimusta. Ensinnäkin, aiempi tutkimus on korostanut sitovan sosiaalisen pääoman merkitystä viihteellisten yhteisöpalvelujen käytön jatkumisessa. Tämän tutkimuksen mukaan yhdistävä sosiaalinen pääoma on sitovaa sosiaalista pääomaa merkityksellisempi ammatillisten yhteisöpalvelujen käytön jatkumisessa. Toiseksi, ns. hedonisen (nautintoon liittyvän) arvon todettiin olevan funktionaalista arvoa vahvempi selittäjä käytön jatkumiselle, mikä on yllättävää ottaen huomioon tutkimuskontekstin. Löydös on kuitenkin linjassa aiemman yhteisöpalvelututkimuksen kanssa.

Koetun arvon käsite tuo uuden näkökulman sosiaalisen median ja yhteisöpalvelujen tutkimukseen. Tutkimuksen löydökset vahvistavat konteksti-sisältö sekä henkilökohtainenammatillinen minä -skaalojen käyttökelpoisuuden ammatillisten yhteisöpalveluiden tutkimuksessa. Vahvan tilastollisen evidenssin perusteella tutkimusmalli onnistuu selittämän ja ennustamaan ammatillisten yhteisöpalvelujen käyttöä, mikä puoltaa mallin käyttökelpoisuutta myös jatkotutkimuksessa.

**Avainsanat** sosiaalinen media, yhteisöpalvelu, jatkuva käyttö, koettu arvo, verkostoituminen, sosiaalinen pääoma

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## **1** Introduction

"Only by externalization, by entering into social relationships, can we develop the interiority of our own person. Only by marching in step with the communicative entanglement in social networks does the subjectivity of the "self", i.e. of a subject that assumes relationships to itself, deepen".

- Jürgen Habermas<sup>1</sup>

This thesis contributes to the current research on social networking sites (SNSs) by introducing a comprehensive framework for explaining the usage of SNSs for professionals, such as LinkedIn. Previous studies have neither clearly covered the determinants of professional SNS usage nor have they fully considered the intersecting usage roles of individual and professional self that this thesis argues are key in understanding the fundaments behind recurrent professional SNS usage. A theoretical framework is formed where the determinants of professional SNS continuance are presented in a context-content and individual-professional perceived value scale matrix.

## 1.1 Background

It is hard not to be touched by social media nowadays. Services such as Facebook and LinkedIn have thoroughly insinuated themselves into our lives. Not only is social media affecting how we realise our personal social connections or use media, but it has also gained relevance in our professional lives too. This thesis aims at contributing to the latter topic.

## Social media retrospectively

In numbers, social media touches the lives of nearly 3.2 billion people globally, of which a majority access it via mobile. The penetration rates outstrip over 50% of the population in most of the regions in Americas, Western Europe and Eastern and Southeast Asia, and the annual worldwide average growth rate of users was 13 % in 2018 (Kepios Digital, 2018).

<sup>&</sup>lt;sup>1</sup> Foessel, M., Habermas, J. (2015) Critique and communication: philosophy's missions. A conversation with Jürgen Habermas, Available at: https://www.eurozine.com/critique-and-communication-philosophys-missions/ [14.04.2019]

We spend multiple hours in different social media during our weekly routines and are influenced by its connectivity and algorithm-run content, for starters. Therefore, no wonder why social media continues to be popular in academic research.

The social media emerged together with the deployment of various online technologies enabling social connectivity. Starting from personal website creation and continuing to the notable Web 2.0 era which introduced us to the first stage of user-generated content, such as blogging and online dictionaries of a different topic (aka 'wikis'). In addition, the recent mobilisation of our Internet usage has enabled us to connect and share information faster and easier than ever before in the history of humankind. In fact, today the mobile comprises over half of the worldwide connected devices market<sup>2</sup>.

The premises of social media thus appear herein: "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" (Kaplan and Haenlein, 2010). This definition is complemented by Kietzmann et al. (2011) who discuss social media as "highly interactive platforms" that enable not only regular users but communities to "share, co-create, discuss and modify" user-generated content. A simplified viewpoint is to see social media merely as a set of tools for social interaction (Bertot et al., 2012).

While the previously mentioned studies cover many of the dimensions of social media, they tend to lack a business aspect. In addition to individuals and communities, today organisations and industries are content consumers and creators too (Parks and Howard, 2012). Still, one must remember that behind every community, organisation or industry representation, the user experience is realised via an individual using a given social media. The roles are, naturally, different than when using these platforms solely of personal motivation. A cynical expression would describe this dynamic as "struggle between users, employers and platform owners to control online identities" (Van Dijck, 2013, p. 199).

The role of corporations and individuals, and the parallel roles of individuals who represent corporations, are nevertheless approaching similarity the broader one tries to encapsulate social media. To demonstrate this, Parks and Howard (2012) have divided the characteristics of social media into three areas: 1) the tools and infrastructure for communication (i.e. the platform), 2) the digitally produced and distributed content in various forms, and 3) the individuals, communities, organisations and industries who use social media. This thesis

<sup>&</sup>lt;sup>2</sup> Statcounter GlobalStats (2018). Online. Available at: http://gs.statcounter.com/platform-market-share/desk-top-mobile-tablet [2.10.2018].

mainly focuses on the third area, social media users.

## Social media business model

A fundamental feature in social media is how the growing user base appears attractive to new users. The value gained through this build-up adoption of a new product or service can be described as network effects, applicable to many areas from credit card providers to online services (e.g. Katz and Shapiro, 1986). As product or service users benefit from a large user base, so does the business side. Social networks act as platforms for both regular and business users, a phenomenon described as a virtual cycle by Eisenmann et al. (2006).

Therefore, the business value of social networks can be derived from this virtual cycle; online platforms tempt users by providing services, content and ways to interact, and simultaneously collect user data that they can ultimately sell to various purposes. Although the initial role of social media for businesses was small scale back in the days, as in the case of many B2B companies, it would be unwise to ignore its possibilities in e.g. lead and influence generation. In fact, today social media offers significant opportunities for companies, especially in the sales process (e.g. Andzulis et al., 2012) and customer relationship management (Trainor et al., 2014).

Thus, the nature of social media from a corporate viewpoint can be described as following: the information flow is rapid, highly scalable, effectively retains its content, and more importantly, it can spread positive and negative messages globally beyond firm's control (Qualman, 2012).

### Social network sites (SNSs)

Social media sites and social network sites (SNSs) are often used interchangeably. Both are used extensively in academics, but the latter term is often used to specify the popular platform services such as Facebook, Twitter and LinkedIn. Other social media include, but are not limited to, media sharing sites YouTube, Tumblr and SoundCloud, yet also blogging platforms (weblogs), news and discussion forums like Reddit or 4chan, or the multiple sites concentrated on more focused areas such as travelling or peer reviews (e.g. TripAdvisor and Yelp). This taxonomy is clarified by Kaplan and Haenlain (2010), who put SNSs as a subsection of social media (Figure 1). Besides the aforementioned, SNSs have also been explained from the perspectives of public-private relationship (Papacharissi, 2009) or their functionalities (Kietzmann et al., 2011), for instance.

		Social presence/ Media richness Low Medium High			
Self-	High	Blogs	Social networking sites (e.g., Facebook)	Virtual social worlds (e.g., Second Life)	
Self- disclosure	Low	Collaborative projects (e.g., Wikipedia)	Content communities (e.g., YouTube)	Virtual game worlds (e.g., World of Warcraft)	

Figure 1.	Classification	of Social Media	(Kaplan d	& Haenlein.	2010)
					/

Social network sites as such could be characterised as a description or mapping of the relationships between individuals. This has been a key idea behind social network analysis (SNA), a popular method applied in multiple disciplines but perhaps most used in sociological studies. Sociology connects the idea of the social network not only to online networks but to a much wider domain; face-to-face, political, business or transactional relationships and connections between both individuals and organisations (Scott, 2017). This thesis focuses on the digital (online) social networks, of which the social network site (SNS) term is used. Apart from a sociological point of view, this study does not aim at revealing any patterns of social relationships nor their properties or societal implications.

Terms "network sites" and "networking sites" should be separated. These descriptions may be used correspondently (Boyd and Ellison, 2007) but the latter term easily stresses creating social ties with strangers, thus narrowing down the initial definition. The network site, on the other hand, refers to the platform and its functionality per se. Nevertheless, both characteristics are important in the case of SNS with varying emphasis on either side depending on the service. LinkedIn is perhaps more inclined to networking and gets a major boost from its connectivity features. Such elements include the publicly visible connections of a user, a key element in defining an SNS (Boyd & Ellison, 2007). Indeed, Boyd & Ellison (2007, p. 211) define social network sites (SNSs) 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."

While one's motivation for SNS usage can be just access to information and opportunities (N. Lin, 2001), it can be also described as maintaining and developing one's social network (Valenzuela et al., 2009). Still, one needs to take into account that social media usage cannot be generalised even within a single platform due to major differences in shared content (Miller, 2016). Reactions to user-based content are relevant too. Such responses may include sharing as such, sharing modified or creating new content as a reply, manifested by what Jenkins et al. (2013, p. 4) describe as "spreadability".

All these characteristics together with the functionalities of SNSs tend to culminate around three things: 1) user profile, 2) user connections and 3) user content. The third one, content, is a characteristic lacking in Boyd and Ellison (2007) description, but acknowledged in later studies (e.g. Kietzmann et al. 2011, Howard and Perks, 2012), perhaps underlining the importance of clear definitions presented in this section.

Finally, although companies have been paying more attention to social media in the course of time, it appears the scholars have been focusing on certain SNS platforms. MySpace used to be the number one social media in the 00s, soon resulting in academics' interest. Facebook and Twitter followed after and eventually bypassed all other platforms, both in user number and academic papers<sup>3</sup>. To complement the list, LinkedIn is one of the most popular social media and the sole platform of the top 10 by users targeting professional audience, yet has been studied far less than its recreational counterparts.

## 1.2 Case company: LinkedIn

LinkedIn is the market leader for professional networking services with nearly 300 million active monthly users spanning 200 countries<sup>4</sup>. The economic value of LinkedIn is demonstrated in by the \$26 billion it was acquired for by Microsoft during Q3 2016. Currently, it is creating \$5.3 billion in revenue during the fiscal year of 2018 with a year-on-year growth rate of 37%<sup>5</sup>. Total registered user amount is estimated to be close to 500 million<sup>6</sup>.

<sup>&</sup>lt;sup>3</sup> Google Scholar search returns over 6,8 million results for "Twitter", and 6,2 million for "Facebook", respectively. In contrast, Twitter monthly active user count is around 330 million, whereas for Facebook it is over 2 billion ("Most popular social networks worldwide as of October 2018, ranked by number of active users (in millions)" (Global Digital Overview, Kepios Digital, 2018).

<sup>&</sup>lt;sup>4</sup> Albergotti, R. (2014) LinkedIn swings to loss on expenses: Professional social network's revenue continues growing as results beat expectations, May 23, 2014, <u>http://online.wsj.com/news/arti-</u>cles/SB10001424052702304178104579536043981760728 [12.11.2018]

<sup>&</sup>lt;sup>5</sup> Microsoft Q4 2018 Press Release (2018) Available at: <u>https://www.microsoft.com/en-us/Investor/earn-ings/FY-2018-Q4/</u> [15.12.208]

<sup>&</sup>lt;sup>6</sup>LinkedIn Q3 2016 Press Release, (2016) Available at: <u>https://investors.linkedin.com/events-and-news/cor-porate-press-releases/press-release-details/2016/LinkedIn-Announces-Third-Quarter-2016-Results/de-fault.aspx [15.12.2019]</u>

In academics, LinkedIn has been described as "a powerful business service" that "focuses on business people" (Boyd & Ellison 2007, p. 215-216). Kietzmann et al. (2011) see LinkedIn as "a professional network", and less targeted for general masses compared with Facebook. Engeström (2005) goes further in detail by interpreting social networks sites as "object-centered sociality", in where LinkedIn presents jobs or careers as objects. However, this description omits several other characteristics and functionalities that the platform provides to attract and maintain users although the job aspect is an important income source for LinkedIn.

The platform attracts revenue mainly from enterprises and professional organizations, with subscription-based services as its main offering. For instance, LinkedIn provides recruiting services under its Talent Solutions unit, as well as sponsored content delivery under its Marketing Solutions arm. A key feature is the user engagement level, which drives both of these offering areas together with quality content creation<sup>7</sup>. In addition, LinkedIn includes a paid account option, which allows for extra in terms of what information the user can view in her own and other users' profiles. Such features include being able to see profile statistics, including who has viewed the profile "home page" and several other networking tools not available for a basic account.

These premium subscriptions are, however, mainly curiosity in its revenue count. Based on pre-acquisition numbers, the share of revenue from subscriptions has been between 15-20 % (LinkedIn Q3 2016 Press Release). Assuming most of the users settle for lower tier products with an average yearly fee around \$300, the 15 % subscription revenue would mean around 2,7m premium users, or around 0.5 % of total users. Although an estimate, this calculation describes how the majority of users are still settling for "basic" functionality.

From users' point of view, LinkedIn exists to connect professionals in all industries, i.e. creating and maintaining networks among people. More specifically, there seem to be roughly two main purposes of leveraging the user networks in LinkedIn: recruiting and customer relationships (Safko, 2010, p. 459; Qualman, 2012, p. 180). When it comes to recruiting, Qualman (2012) claims at least 80 per cent of the companies use social media for it, of which LinkedIn's share is 95 %. Yet most importantly, LinkedIn is a social networking platform that enables users to create and share content.

An interesting feature of engaging users is that people can see their social circles in

<sup>&</sup>lt;sup>7</sup> Microsoft Annual report (2018) Available at: <u>https://www.microsoft.com/en-us/annualreports/ar2018/annu-alreport</u> [15.12.2019]

degrees starting from first-tier contacts. In searching contacts, users can see how they are connected to a particular contact, and if they share mutual connections, i.e. LinkedIn shows the degree of connections between two individuals. Other potential elements of user retention are a possibility to find jobs and business opportunities, give and receive mutual endorsements of different professional skills, ability to see who has viewed your profile, and how you "rank" among your reference groups.

The other side of the platform, employers, can utilise LinkedIn in various tasks. They benefit from the job listing, headhunting, and skills searching, as well as profiling themselves for potential employees. LinkedIn is also applied for searching sales leads and regular professional networking. Especially the latter exemplifies the parallel role of individual and business benefits of using LinkedIn.

In contrast to users' professional value, one can study the usage and value of LinkedIn from purely firm perspective. The service offers corporate accounts for establishing a company page for e.g. sharing information and content marketing material, as well as building opinion leadership and corporate brand. For example, LinkedIn itself has a company page leveraging its own user features: it activates community by crowd-sourcing content and then shares it to larger audiences. Other company-specific value can be harvested from advertising & PR efforts, customer service and product recommendations to boost sales (Culnan et al., 2010). In addition, a conventional trigger for LinkedIn participation is the career feature being a popular recruitment service. These are supplemented by LinkedIn's online learning, CRM and business intelligence solutions<sup>8</sup>. All the listed offering eventually comes to engagement and audience retention, which is key to creating functional network effects.

To summarise, LinkedIn seems to possess the three characteristics of SNS; user profile, user connections and user content. These three might offer a too simplified account of this popular platform, but it is the user side features that it eventually comes to attract and maintain service members. Furthermore, the real drivers of customer recurrence should extend the previously introduced classifications of SNS, and possibly aid developing more attracting features and in enhancing the overall customer experience.

<sup>&</sup>lt;sup>8</sup> Lunden, I. (2018) LinkedIn rebuilds its Recruiter platform, launches tracking system and gender 'insights' in diversity push, Available at: <u>https://techcrunch.com/2018/10/10/linkedin-recruitment-overhaul</u> [20.1.2019]

## 1.3 Research Gap

Social media has been examined by a vast number of studies since its popularisation. Some platforms have become multi-million (or even billion) user networks which naturally have gotten more attention by the scholars. In general, the aspects of social media can be seen influencing in many areas from business (Kaplan and Haenlein, 2010) to politics (e.g. Howard et al., 2011), and it has perhaps indefinitely changed the way we are interacting with each other, communities, organisations and even media itself (van Dijck, 2013).

One thing mutual to numerous social media studies is the amount of information and its opportunities for research purposes. In addition to common Internet content, i.e. regular websites, social media adds user contribution to this formula and enables new possibilities in connecting online and 'real world'. For example, Asur and Huberman (2010) adapt social media information in predicting people's real-life intentions. Predictive modelling and data mining seem to greatly benefit from this treasure chest of personal information (e.g. Russell, 2013) although the large amount and diversity of data create significant challenges compared with former web community research where data was less copious (G. Xu et al., 2010, p. 9). Alas, turning this 'big data' into insight on human behaviour is not always straightforward.

Yet under Microsoft, LinkedIn is being integrated into the already ubiquitous systems provided by its owner. This means that companies already using Microsoft's offering are able to benefit from rich user data of the platform. Therefore, it is essential for companies to be aware of the deeper understanding behind LinkedIn usage.

Another thing often related to social media studies are information sharing and networks. By enabling people to connect, social media bolsters social interaction and information sharing (e.g. Chen et al., 2011). In contrast to regular media, user-generated content can be shared rather effortlessly, although it does not always guarantee reach. Nevertheless, a user's own networks can be covered in an unprecedented way. Within this area, studies of online communities are common (Malinen, 2015).

The term web community has traditionally referred to web pages used and visited by a certain group of people with something in common, such as web forums or message boards, and where information is shared between people. Due to the similarities in their characteristics, the analysis of web communities and social networks has evolved similarly (G. Xu et al., 2010). Large amounts of consumers in one place tend to attract corporations, as explained by the network effect theory, so interaction with consumers in SNS communities should be beneficial to companies in various ways (Culnan et al., 2010).

Social media research is naturally going beyond the area of information studies. For example, its political significance can be traced to true events. Again, acting as a connector of people, social media seems to support civil society, and might even contribute to the emergence of it (Shirky, 2011). One example of this aforementioned revolutionary side is the so-called 'Arab Spring', partly facilitated by the social communication forms (Howard et al., 2011).

More recently, the area of data protection and privacy has raised concerns. A discussion has evolved in both ends; service providers have partly failed to live up to users' expectations on privacy on events such as the Cambridge Analytica scandal, and authorities are catching up service providers protecting their citizens' rights to their own data by introducing acts like GDPR<sup>9</sup> in the European Union. On a more personal level, trust and perceived privacy have been of interest by the scholars in studying SNS usage (Hu and Kettinger, 2008; X. Lin et al., 2017). According to these studies, a lack of trust or perceived privacy tends to have a negative effect on SNS continuance.

Having noted that social media has impacted our lives, there is an area of research focusing on why are we so attracted to using it. The motivation for social media usage, knowledge sharing, and acceptance as a technology are all popular viewpoints to approach the reasons for social media acceptance (Hsu and Lin, 2008). A different adopted approach explores the influence of SNS characteristics and features on usage. For example, (Brandtzæg and Heim, 2009) found out that the main motivation for SNS usage were the networking elements, such as an ability to contact new people and keeping in touch with friends, by using a stated importance approach. Another study discovered the importance of immediate access and coordination features, stressing the SNS functionalities (C. Xu et al., 2012).

From a theory perspective, the continuous usage of social information systems has been a popular topic, where the expectation-confirmation theory (ECT) by (Bhattacherjee, 2001) has been a primary framework in consumer IT/S<sup>10</sup> adoption and usage. Moreover, consumer satisfaction and perceived usefulness are often found as the intrinsic determinants of continuous usage of IT/S in studies using Technology Acceptance Model (TAM) (Wang

<sup>&</sup>lt;sup>9</sup> General Data Protection Regulation, in effect as of May 2018, <u>https://ec.europa.eu/commission/priori-ties/justice-and-fundamental-rights/data-protection/2018-reform-eu-data-protection-rules\_en</u>

<sup>&</sup>lt;sup>10</sup> Information technology and Information Systems (IT/S)

et al., 2008) and in a post-adoption adaptation of it, the ECM-ISC<sup>11</sup>. Other popular theoretical frameworks for usage continuance in SNS context include Uses and gratifications theory (U&G) from the media and communication field (C. Xu et al., 2012; C. S. Lee and Ma, 2012), as well as Theory of planned behaviour (TPB), an established social-psychological model predicting behavioural intentions that are within the sphere of self-control (Al-Debei et al., 2013). Both theories have a stable following in academics, yet have been often expanded with other concepts to better support dimensions of SNS continuance. Similarly, the research targets have often been Facebook dominated and therefore much concentrated on a recreational use viewpoint. For instance, Al-Debei et al., (2013, p. 44) have specifically chosen TPB as it tries to provide for "users' social needs rather than their professional or educational needs".

Our life has become increasingly mobile, online software and services fill our days, and the price of technology continues declining, increasing its availability and quality regardless of context (Laudon and Traver, 2016). Thus, Internet technology has become so embedded in our lives that it suggests a paradigm shift towards other academic fundamentals in online service research. People have already long since been dual of users of technology or IT/S oriented fields should then be replaced with other means studying digital services such as SNSs. Self-constructed models also seem to be prevailing in SNS studies (Shaikh and Karjaluoto, 2015), meaning no single framework is dominating this area of research. There-fore, a new approach should not break conventions and could possibly reveal new perspectives, particularly if applied in professional SNS context.

One of the more consumer and service-oriented approaches is the perceived value concept. It has been successfully integrated or derived into some previous technology-oriented models, resulting in significant interrelationships with SNS continuance, and/or increasing the model variance explained (Cheung and Lee, 2009; Zhao and Lu, 2012; Al-Debei et al., 2013). Still, the concept deserves a more focal role in SNS enquiry. Scholars have already utilised perceived value on various occasions, and more holistically than the value solely associated with the price. For instance, Seth et al. (1991) show five value aspects explaining why consumers choose to use a service over another: functional, emotional, social, epistemic and conditional value. The frameworks often work in both descriptive and predictive purposes and should provide enough explanatory power for continuous usage studies.

<sup>&</sup>lt;sup>11</sup> The Expectation–Confirmation Model of IS Continuance (Bhattacherjee, 2001)

Even though SNS has generated immense coverage in academia, and moderate attention in the usage continuance subset, scholars tend to generalise their findings to apply in different types of SNS. LinkedIn is an example of service types not covered in their own context – name service for professionals. As mentioned earlier, of the different SNSs, Facebook has been studied extensively in the context of continuous IT/S usage, particularly the human behaviour in using Facebook (Shaikh and Karjaluoto, 2015). In addition, The peerreviewed article database Scopus lists over 20 000 documents for "Facebook" since 2005, while "LinkedIn" prints only 1400 results. The mixture of personal and professional usage creates an interesting research setting that should be examined in more detail. By far, LinkedIn has been expounded on its features in different classification studies (Kietzmann et al., 2011) or on its interface (van Dijck, 2013), yet not on the determinants of usage.

It has been noted that there is a lack of understanding about LinkedIn and the professional SNS in general. More specifically, the actual drivers for using a pSNS would be valuable to both the platform and organisations utilising it. This is an area much more covered in recreational SNS context. The perceived value perspective would also open up discussion for deploying different theoretical approaches in studying SNSs.

Thus, given that no previous study has covered the drivers of continuous use of pSNS, the first research question of this thesis is:

## RQ1: What value determinants drive the continued use of pSNSs?

In addition, the blending roles of individual and professional self result in contouring a setting where the principles of recreational usage and professional usage collide. Here, LinkedIn separates from its recreational counterparts like Facebook. Both SNS platform types share similar features, such as connectivity, content tools and profile creation. However, professional SNS usage requires a different form of self-expression (van Dijck, 2013). This manifests that pSNS usage is not necessarily voluntary per se, but is rather driven by extrinsic factors, such as fear of missing out (Przybylski et al., 2013). Even a more conservative service user might consider joining a platform in case the fear of missing out becomes fear of missing a job. On the other hand, mere opportunistic behaviour is a possible determinant. Networking can be seen as a powerful resource of knowledge and contacts, already proven by Granovetter (1977). The parallel roles of individual and professional should, therefore, be considered. Accordingly, the second research question of this thesis is: *RQ2:* What are the roles of individual and professional value determinants and their relative strengths in driving the continued use of pSNSs?

## **1.4 Thesis Structure**

The next section elaborates on the foundations of this study. First, key literature on previous SNS determinant approaches, theoretical characteristics of professional SNS, the perceived value concept and social network theory are presented. Second, the research questions are defined by introducing thirteen research hypotheses based on previous studies. The hypotheses are founded on the perceived value concept applied in different context and content related dimensions, where both individual and professional SNS usage roles are incorporated. Third, the theoretical framework of this thesis is formed.

Section three introduces a methodology for testing the formed research framework. Discussion about survey creation, means for data collection, characteristics of the collected data, and finally, the evaluation of a quantitative method are presented in this section.

The fourth section is about applying the methodology for hypothesis testing. A PLS-SEM model is used for assessing the linkage between different value determinants and the outcome, continuous professional SNS usage. The section goes through different criteria for model validation, modelling steps and results analysis.

The last and fifth section evaluates the implications of this thesis, and the possibilities for its utilisation in business and theory. In addition, the section elaborates on research validity. Final subsections discuss the research limitations and suggestions for future studies, ending with conclusive remarks.

## 2 Literature Review

In this thesis, an SNS defines as a service based on its characteristics described in the first thesis section. SNS is also consumed each time it is used, and applied by technology. Considering the mundane role of these online services, and their high availability regardless of time and place due to an explosion in smart gadgets, the technology and all devices enabling their application should be considered more of a hygiene factor in studying SNS usage. Technology usage has become so intuitive it no longer moderates online service adoption or usage. In fact, the effect seems to be reverse (Salehan and Negahban, 2013). Moreover, the motivation for technology adapted service usage has gained vast literature during recent years. Other types of approaches are needed to fully understand why people use online services and SNS.

Previous studies have suggested there is an interrelation between motivation to use and perceived value gained from using SNS. Therefore, the perceived value part is certainly key to understand social media usage and usage continuance in particular. In a professional context, this relationship is twofold: both the individual and professional perceived value together contribute to usage and vice versa when usage is recurrent. While individual value determinants are a no-brainer having been covered in several studies of social media usage, the professional aspect brings in a fresh viewpoint. The individual's professional groundings of SNS usage seem to be less covered than the sole individual aspect that is often focused on recreational usage.

This section describes the key literature of this thesis. The literature is chosen considering their influence in academic writing and their relevance regarding the research questions. Research context and theoretical constructs are derived from the following areas: previous SNS usage determinant studies, the fundamentals of a professional social network, the concept of perceived value in service consumption context, and the value dimensions of professional networking. By combining the previously mentioned topics, this thesis aims at complementing the previous studies on SNS usage determinants. Several determinant hypotheses on the perceived value dimensions are formed for explanatory purposes. Lastly, a framework for studying professional SNS usage continuance is introduced.

## 2.1 Previous Research

This subsection introduces the literary background of this thesis. First, argumentation for a

need to complement previous SNS usage continuance literature is proposed around two key areas: the perceived value concept and professional social network services (pSNSs). Second, these two topics are elaborated by introducing relevant studies in their field.

### 2.1.1 Determinants of SNS Usage

The impetus for SNS usage has often been studied by using concepts and theory popular in information technology and systems (IT/S). This literature typically has two premises; either technology acceptance or adoption, and continuous usage, i.e. post-adoption (e.g. Bhattacherjee, 2001). IT/S research covers web and mobile-based services, as well as e-commerce, and consequently, is adapted in SNS context too (e.g. Jin et al., 2010).

IS acceptance and usage continuance have been popular topics among scholars during the recent decade. There are several theoretical models used for studying both technology acceptance and continuous usage, such as the Technology Acceptance Model (TAM) and Unified Theory of Acceptance and Use of Technology (UTAUT). Both models have seen several evolution stages and adaptations to different contexts and have been utilised in studying SNS adoption (Curtis et al., 2010; Shin, 2010), yet less on researching the SNS usage continuum. These two technology models have also been criticized for lacking a "pleasure" aspect, which is considered important in SNS user continuance (K. Lin and Lu, 2011). TAM stems from organisational or workplace context and has therefore been predominantly focusing on 'functionality' or utilitarian aspects in terms of perceived usefulness and so the hedonic viewpoints are often neglected (Bruner II and Kumar, 2005). Thus, enjoyment should be a key element in theory.

To put more emphasis on the usage continuance, Bhattacherjee (2001) introduced Expectation-Confirmation Theory (ECT) of IS that approached the topic via satisfaction and perceived usefulness, of which the former was included to describe the post-consumption reaction. However, many authors refer to the limitations of the ECT model in studying SNS continuance, as it lacks several moderating factors influencing SNS usage (e.g. Chang and Zhu, 2012). For example, social and emotional impacts aren't fully determined through ECT usage due to its inherent variable setting. This is perhaps due to ECT originating from TAM. Nevertheless, both social and emotional aspects are found to influence SNS continuance (Yin et al., 2011; K. Lin and Lu, 2011; X. Lin et al., 2017)

Enjoyment factors are taken into account in motivation theory, also a popular framework for studying individual's IS acceptance. Motivation theory suggests an individual's behaviour is guided by extrinsic (instrumental value) and intrinsic (enjoyment) motivation. Applying motivation theory to IS acceptance and usage, the usefulness and enjoyment are found to be its major influencers (Davis et al., 1992). For instance, using motivation theory, Lin and Lu (2011) found intrinsic factors (i.e enjoyment) play a bigger role compared with extrinsic in the user stickiness of Facebook, but also highlight the social effects of networking that affect directly and by supporting both extrinsic and intrinsic value. Studies also complement the benefit-to-satisfaction setting by introducing complementary elements such as network externalities (K. Lin and Lu, 2011), flow experience (Hu and Kettinger, 2008; Chang and Zhu, 2012) and different moderators such as habit (Limayem et al., 2007), trust (H. Yang and Lin, 2014) or gender (X. Lin et al., 2017).

However, the areas covered in earlier literature have neglected some valuable aspects of SNS usage continuance research. First, the examination of professional SNS has seen small coverage in academics in spite of being such an important service for today's professionals. Second, the concept of perceived value has been used in rare cases despite being an important tool determining service consumption drivers (Sweeney & Soutar, 2001). When integrated as part of the research models, it has been recognised as a major effect on SNS usage continuance. Still, these studies have often used rather narrow approaches to perceived value, in contrary to what many service-related studies have successfully used to demonstrate customer maintenance or drivers of purchase (e.g. Pura, 2005; Lariviere, 2013). Maintaining customer relationships parallels with maintaining an SNS user base, after all (Cheung and Lee, 2009).

#### 2.1.2 Characteristics of Professional SNS

To put LinkedIn in context, it should be comparable to other social media and media in general. Although there are several frameworks depicting the social media sphere, Kietzmann et al. (2011) provide perhaps one of the most comprehensive ones including characterisations of professional SNSs.

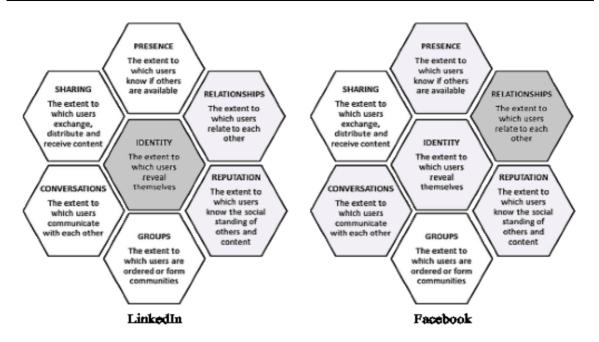


Figure 2. The contrasting functionalities of different SNS (Kietzmann et al., 2011)

Kietzmann et al. (2011) argue that first, social media constitutes of seven functional building blocks that are not necessarily mutually inclusive, leading to their second claim that different SNS tend to concentrate on three or four functional blocks. Their framework (Figure 2) shows the characteristics of each functional block and how two of two popular SNS differ in their focus areas which are introduced here.

## Identity in pSNS

According to Kietzmann et al. (2011) framework, LinkedIn scores the highest in identity, representing "the extent to which users reveal their identities in a social setting", and again highlighting the tools for self-promotion (p. 243). More specifically, the identity covers basic information but also all the actions a user commits within the SNS platform by using its functionalities, thus creating an image of herself. This can be both conscious or unconscious and may include public status updates, content sharing, likes or other reactions to other users' actions (Kaplan & Haenlein, 2010).

The common SNS, including LinkedIn, promote a practice where revealing an identity starts from not using a pseudonym, which should enhance the role of offline social networks (Hogan, 2012). On the other hand, pseudonyms would not be practical within a professional platform, where sociality is meant to be linked to users' offline world, name her professional life. As the identity is related to professional self, the users of LinkedIn tend to promote trust and credibility in their identity creation by sharing their background information more than

is often socially required in other SNS. In addition, privacy concerns, i.e. what happens to my personal data, are closely connected to identity, and something that especially Facebook has been struggling with during recent years. Yet, despite all the negative media, the security issues have had a little impact on its user base, shown in the growing number of users of the most popular SNS.

A social circle is a term particularly useful in analysing pSNSs. (Simmel, 1955, p. 155) describes overlapping social circles as: "an infinite range of individualizing combinations" due to various, and often converging, social groups of the modern post-industrial life. (Goffman, 1959) theory elaborates this via its dramaturgical stages. Social media can be seen as "virtual stages" of social circles where different "selves", such as the professional role, take their places. This is the frame where an online identity forms (Boyd & Ellison, 2007; Hogan, 2010; Kietzmann et al, 2012).

According to Goffman, there must also always be a "backstage" where "impression management" does not play a part as in the stages; and although this personal chamber might reveal something real on the individual self, the backstage and stages are ultimately interrelated. The professional and individual selves should therefore be part of the identity in a professional SNS. In LinkedIn, however, one could assume the professional self plays a much bigger role compared with the personal self in the backstage. Yet, both roles matter.

In the case of LinkedIn, Kietzmann et al (2011) discuss "self-branding" while Facebook receives the term "self-promotion", describing how people tend to act differently identity-wise depending on SNS platform. Van Dijck (2013) again describes LinkedIn as "professional self-promotion" focused, whereas Facebook "facilitates personal self-presentation". Regardless of wording, in LinkedIn's case, recreational content is rarely shared unless it can be connected with professional identity creation. And although this can happen because of user privacy concerns (Kietzmann et al. 2011), a more intuitive reason would be merely the conscious self-promotion or "self-branding" for boosting a professional identity. This usher in the concept of reputation.

## Reputation in pSNS

LinkedIn provides multiple features that are directly or indirectly related to reputation management and self-branding: skills, personal CV, analysis and publishing tools, profile views count, thought leader program called Influencers, profile descriptions, news on profile updates and public endorsements, to name a few.

Kietzmann et al. (2012) describe reputation as "a socially shaped opinion based on

aggregate experiences" that are shared in various ways via SNS. On the other hand, reputation is related to trust. (Habermas, 1985) explains reputation via context-based arguments among debaters, assuming that all members base their arguments on a similar background in terms of values, social sphere and experience base. He calls the premises of debate as the three worlds of subjective, objective and social (or normative). Among the users of a pSNS, this would materialise in a way where the subjective truthfulness would represent self-branding image a user is targeting at, i.e. highlighting the qualities and experience she thinks would benefit her reputation by e.g. using certain wording or order of presented things; objective would be a "neutral" form of these qualities; and the social norms of pSNS define whether the reputation claims are generally accepted by peers. In the end, it is about the means of communication.

Habermas' three worlds are further turned into a three-dimensional reputation construct by (Eisenegger, 2009): functional (technical), social (norm-following) and expressive (distinctiveness) reputation. The functional, social and expressive dimensions are more like communicational determinants permitting reputation and self-branding image. First, a user's reputation is determined in the number of contacts or followers that enable indirect benefits such as business opportunities (functional); second, a user needs to adhere to social norms such as reciprocity in endorsing manners (social); and third, the form and appearance of content by the profile, or how it separates from other users (expressive). As demonstrated, reputation and identity cannot be structured in isolation of other users. User contacts and contacts' contacts generate a network.

## Relationships in pSNS

The elements in LinkedIn related to (or enabled by) networks and relationships include e.g. endorsements, the number of connections, connection updates, "social selling"<sup>12</sup> and groups of particular subjects, such as a group for key account managers.

The personal network is called "connections" in LinkedIn. It applies a "gated-access approach" to boost trust among users (Papacharissi, 2009, pp. 208) realised as three-level networking logic: 1st being the direct connections through invitations to connect; 2nd-degree are those contacts in contact with your direct contacts; 3rd-degree are the contacts of your

<sup>&</sup>lt;sup>12</sup> Social selling can be defined as "the identification, targeting, and reaching out to prospective and existing customers through social media channels and social communities in an effort to engage them in conversations that result in a potentially mutually beneficial relationship." (Belew, 2014).

2nd-degree contacts. One can try to connect with 2nd-degree contacts directly, yet contacting 3rd-degree contacts may be restricted although a paid account enables private messaging them.

More specifically, LinkedIn categorises non-contact private messaging options in three: InMail, targeted on individual users; Sponsored InMail, a direct-advertising type targeted on corporate accounts; and Open Profile, a 'passive-mode' enabling any LinkedIn member to contact that profile in private. All these features require a paid service. Networks are also supported by hosting various interest groups, varying from job boards to different expertise or industry areas. There are over a million groups with the biggest ones having over a million members (Garzone, 2018).

Conclusively, LinkedIn facilitates contacting conversation and enables the sharing of content like another SNS platforms, thus forming a part of the objects of sociality; name objects that mediate ties between people and objects that people value, i.e. benefit from. More specifically, Kietzmann et al. (2011) refer to network structure as the number of connections and the relative "position" (i.e. the strength of self-branding) that the user has, which leads to an "influencer" position if these two dimensions are strong enough. The authors also refer to another property of network relationships that is related to the resources embedded in users' connections. These resources can be discerned using Granovetter's (1973) theory on strong and weak social ties. This should be a highly important viewpoint considering LinkedIn's connections are "highly formal, regulated and structured" and "built around the notion of tie strength" (Kietzmann et al. 2012). Naturally, the extent of one's networks is related to the reach of communication.

## Conversations in pSNS

LinkedIn enables users to communicate with each other in many ways familiar in other SNS (e.g. private messages, public posts and link sharing) but also offers business-specific communication features such as recruiting advertising. Another aspect related to conversations is the business-to-business discussion between corporate representatives or corporate accounts. For instance, firms can share white papers or recruiting ads, and individual users can further share their company content, create posts related to their expertise area or contact other users in private or professional matters. In addition, the messages can be targeted to specific audiences and the professional setting often shows in the type of messages firms or individual users deliver. Sharing content is also enabled by Slideshare, a professional content sharing service, owned and integrated into LinkedIn since 2012. There are also publishing

and audience analysis tools for content producers.

Still, what is the role of communication and content sharing? Some authors go as far as defining the whole social media via its content, and that it is the place where people not only communicate but do the whole 'socialising' nowadays (Miller et al, 2016). The role of content has certainly risen<sup>13</sup> and LinkedIn has steadily increased its capabilities in supporting user-based content production via acquisitions<sup>14</sup> while at the same time stressing the roles of content feeds and learning solutions by "increasing the relevancy of the LinkedIn Feed to a better mobile experience" and "[focusing] on our services that transform the way customers hire, market, sell, and learn."<sup>15</sup>. Content creation and sharing are also related to identity development (Toubia and Stephen, 2013). In practice, users are producing and sharing content of their own for both intrinsic and extrinsic motives. Alternatively, the content can also be made by someone else.

In LinkedIn, content might have a smaller role, as the role of connections often overwhelms the discussion about its attraction. It is true the connections are highlighted in the features, and that the networks enable contacting and referrals, for instance. Still, one must remember the important role of self-branding, that is, besides the number of connections, also built by creating and sharing relevant and attractive content – a building block of pSNS' resources.

To conclude, different social media platforms do require different approaches and analysis due to the difference in the ways they are used (Ngai et al., 2015). Given the scrutiny of this subsection, pSNS use seems to be embedded with different expectations compared with Twitter, and especially Facebook, meaning new perspectives are required for explaining why people keep using professional social network sites.

## 2.1.3 Perceived Value

In everyday dialogue, the term value is often associated with property or markets - meant to facilitate comparing things on a certain scale. Another case for defining value is ethics and moral; values determine the baseline for evaluating the world. Or as Holbrook (1996) notes:

https://www.crunchbase.com/search/acquisitions/field/organizations/num\_acquisitions/linkedin <sup>15</sup> Microsoft Annual report (2018) Available at: <u>https://www.microsoft.com/en-us/annualreports/ar2018/an-nualreport</u> [15.12.2019]

<sup>&</sup>lt;sup>13</sup> Jhonsa, E (2018) Microsoft's Earnings Provide Fresh Proof That the LinkedIn Deal Is Paying Off, Available at: <u>https://www.thestreet.com/opinion/microsoft-earnings-show-linkedin-deal-is-paying-off-14657542</u> [30.11.2018]

<sup>&</sup>lt;sup>14</sup> Crunchbase Inc., List of LinkedIn acquisitions (2018) Available at:

"[Speaking of] value (singular) as opposed to values (plural), where the latter term represents the standards or criteria on which the former depends".

In marketing, the term value proposition refers to a promise made for a customer, that is often communicated publicly. More specifically, "customer value" describes the cost-benefit ratio of a product or service (Kotler et al., 2009, p. 381). In other words, customer value is essentially answering the customer's question: "what is in it for me?". However, who are these customers? Due to the fact, the terms customers and consumers often overlap in academic writing (e.g. Parasuraman and Grewal, 2000), this thesis targets consumer customers, and particularly their consumption of social media and the value driving its continuous usage.

Consumers make choices in their consumption. The key question in evaluating their decision-making behaviour is why they make these decisions and what factors are influencing them. For instance, Sheth et al. (1991) introduce three general consumer choice behaviour (why) contexts to consider: the buy-or-not decision, the choice regarding the product or service type, and the brand preference. These contexts can be interpreted hierarchically, where decision flows through different contexts.

Studies have also discussed the role of consumption "target" when explaining consumption behaviour. Several classifications exist. Products can be already owned (in contrast to new), considered "sentimental" where monetary value is not necessarily the same as usage value, they can be FMCG (fast-moving-consumer-goods) or durable goods, or alternatively, they can be services of a different kind (Sweeney and Soutar, 2001). Regardless of the consumption target, consumer choice behaviour has often been interpreted via the concept of perceived value.

Scholars have long since accepted the importance of perceived value, yet there are several definitions to it. Simple versions apply utility assessment viewpoints with two components; e.g. get-and-give relation or quality-price ratio (Sweeney and Soutar, 2001). These utility descriptions are basically identical to what Kotler (2000) meant by customer value as such. Many researchers have also included a so-called hedonic aspect to complement the aforementioned utilitarian components, described by Batra and Ahtola (1991, p. 159) as "(1) consummatory affective (hedonic) gratification (from sensory attributes) and (2) instrumental, utilitarian reasons" of "functional and nonsensory attributes". Following the same dichotomy, the split to extrinsic and intrinsic values has been used too (Holbrook, 1996).

Conclusively, what the perceived value generally consists of is the knowledge or experience basis for perceiving value, followed by an evaluation of outcome (see Pihlström, 2008, p. 149). To utilise perceived value in the context of this thesis' research questions, one needs a more holistic version considering all the possible dimensions of pSNS usage, or consumption in this setting. There are several examples of multicategory applications of the perceived value construct that go beyond the dual hedonic-utilitarian setting (Sheth et al., 1991; Sweeney and Soutar, 2001). The construct has also gained popularity in online and mobile services (e.g. Pura, 2005), as well as online purchase literature (Al-Debei and Al-Lozi, 2014). In fact, perceived value has been recognised as the strongest determinant of continued SNS usage compared with attitude, subjective norms and perceived behavioural control in a recent study (Al-Debei et al., 2013).

Finally, to further affirm the scope of this thesis, the distinction between quality, satisfaction and value on consumer behaviour needs to be clear. These three concepts seem to be interrelated but can also be distinct constructs explaining behavioural intentions (Hellier et al., 2003). However, there are points that support the use of perceived value as the main construct. First, the perceived value should act as the best predictor in service consumption context (Cronin Jr et al., 2000). In addition, due to the complex nature of explaining continuous online service consumption, the customer satisfaction concept, an alternative to the customer perceived value, does not provide enough depth due to its focus on post-consumption stages (Sweeney and Soutar, 2001). Some studies have also indicated perceived value to be a stronger predictor of loyalty compared with satisfaction (Z. Yang and Peterson, 2004).

Quality would again provide a narrow viewpoint concentrating on "qualities" in relation to a more comprehensive construct such as value. In fact, an integrated, multidimensional interpretation of value should be quality-inclusive (Sweeney and Soutar, 2001; Pura, 2005). More importantly, both satisfaction and quality have already been studied as an SNS determinant in IT/S based studies, and perceived value is assumed to precede behavioural outcomes, such as "satisfaction, usage intentions and loyalty" (Hsiao et al., 2016, p. 343). These three constructs are therefore not mutually exclusive due to the described "chain of value". Perceived value has only had less attention in this particular research context despite being a recognised determinant of recurring service usage. Thus, based on the previous go-through, this study assumes that perceived value positively affects the behavioural intention to continuously use professional SNSs.

#### 2.1.4 The Structure and Content of Networking

A number of studies suggest SNSs amplify knowledge sharing and learning by collaboration (Chow and Chan, 2008; Lytras and Ordóñez de Pablos, 2011). Belonging to a network is essential in enabling these positive outcomes. In fact, networking appears to be driving SNS usage as the users' perceived value is experienced in a sense of belonging and building connections (H. Yang and Lin, 2014). Professional SNS usage can be also seen expanding the traditional sense of networking such as meetings and seminars. However, networking is not bliss as such but the connections that mediate affiliations and the realisation of different value to individuals due to networking are key. SNS environments are also places where network externalities occur, meaning that usage value should increase in proportion to the number of users (Katz and Shapiro, 1986). The value of networking can be structured by elaborating the widely-accepted concept of social capital. All this essentially comes to a better understanding of how SNS can be harnessed for professional purposes and gain value from it in a professional context - a key part of thesis research questions.

Social capital is a concept enjoying multidisciplinary acceptance. (Adler and Kwon, 2002) list it has been used extensively in sociology, political science, economics and organisational studies. The concept is understood as "the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit" (Nahapiet and Ghoshal, 1998, p. 243). Or more simply put by Valenzuela (2009): "the resources available to people through their social interactions", meaning the bigger the network, the more social capital gains for a person or other social unit. Adler & Kwon (2002, p. 23) also add that "its source lies in the structure and content of the actor's social relations", ending in value creation in their model.

Despite different approaches, contexts and use cases, researchers seem to connect three elements to the social capital concept: 1) access to intangible resources or goodwill (Adler and Kwon, 2002; Hughes et al., 2007), 2) activity by an individual (e.g. Valenzuela et al., 2009) or other actor such as a firm (e.g. Hughes et al., 2007) or a group (Utz, 2016) and 3) that it evolves in time. Despite the aforementioned definitions draw a relatively vague image of social capital, the topics already touch on the key themes of SNS usage and its benefits in professional context.

Valenzuela (2009) argues that if some researchers have considered social capital "too broad" to be used as a scientific concept, it can be seen as a multidimensional construct comprising of social networks and their predicted effects. One approach of this multidimensionality splits social capital into structural, cognitive and relational dimensions that can be explained as social ties, shared goals and social trust, in the mentioned order (Nahapiet & Ghoshal, 1998; Hughes et al., 2007). Another perspective for the social capital concept was found by (Scheufele and Shah, 2000), who also define it through three dimensions: intrapersonal (as life satisfaction), interpersonal (social trust) and behavioural (social engagement). These interpretations seem to share mutual viewpoints such as trust and social interaction. One could also argue for an endogenous element representing a somewhat subjective aspect of social capital, such as life satisfaction and shared goals, which could be described as highly dependable on personal or contextual factors.

However, of the multiple angles of social capital, there is one particularly suitable for understanding professional SNS usage. The relationships and relations functionalities described in Kietzmann's (2011) model are best described by the structural and relational dimensions of social capital, which are supplemented by the cognitive dimension. This Adler and Kwon (2002) framework is also described by Hu and Kettinger (1998), who refer to the type of interpersonal relations that individuals have built and sustained "through a history of interactions" by the structural-relational dimension, and to "those resources providing shared interpretations and systems of meaning among parties" by the cognitive dimension (p. 244). Similar views are held in sociological studies, which name resources such as information as the essential form of value in networking (e.g. Chayko, 2014).

The structure and content of networking thereby crystallise the key dimensions of social capital of professional SNS usage. More specifically, the structure describes the network itself, or the circumstances networking takes place, and the content represents all the resources realised in the networking setting. The value of networking is ultimately the content related resources, which are enabled by the network of connections and affiliations.

Thus, the social capital concept has been adapted in various research cases in management and social sciences and its application has been popular in researching social media and social network sites too (e.g. Ellison et al., 2007; Valenzuela et al., 2009; Utz 2016). Moreover, Scott (2017) turns this idea into that "social networks are a particular form of social capital" (p. 7), meaning that studying social networks is in effect studying social capital. Therefore, it should have particular emphasis also in this study due to its strong linkage to one of the main features of LinkedIn, connecting with other professionals. Thus, social capital is a solid construct for expounding the perceived value of professional networking.

## 2.2 Research Model and Hypothesis Development

The previous subsections described the relevant literature for a background around the themes of this thesis. After reflecting on earlier examinations of SNS usage continuance, the specifications of professional SNSs were gone through, after which the key theory of this study, the perceived value concept, was introduced. This subsection addresses the research questions of this thesis by forming a theoretical framework for studying the continuous usage of professional SNS. The subsection aims at clarifying 1) what are the value dimensions driving it and 2) what are the relative strengths of these dimensions.

More specifically, the characteristics of professional SNS result in that its usage parallels the two motivational roles of individual and professional. Therefore, both aspects need to be taken into account in framework formation. This bond of individual and professional usage is a key in this thesis and is approached via the different perceived value one derives from the usage of professional SNS. It is also assumed that this value further increases the behavioural intention to recurring professional SNS usage. In addition, the framework should explicate how are different types of perceived value influencing the usage of professional SNS in relation to each other.

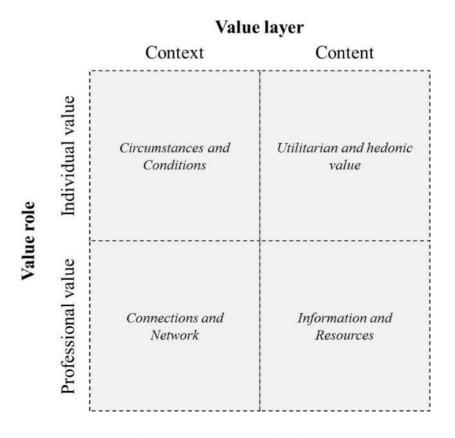


Figure 3. Perceived value layers and roles of professional SNS usage

The approach to determinant specifications is following. First, the individual perceived value is derived from service consumption theory and thematically based on former, recreational SNS usage continuance research which takes into account both intrinsic and extrinsic benefits based value as well as context and circumstances specific value. Second, the perceived value from the professional perspective is based on the characteristics of professional SNSs, including the connections and content users can benefit from being a member. Furthermore, both the individual and professional side follow the same logic of splitting value into contextual and content related. The conceptual reasoning of user roles and value layers is encapsulated in Figure 3. Elaboration of the mentioned logic follows in the next subsections, including detailed descriptions of the chosen value dimensions.

#### 2.2.1 Individual Value Dimensions

The previous subsections introduced several approaches to studying social media and SNS usage continuance. In addition to technological, media and mass communication theory have provided a suitable theoretical base for SNS research. According to (McQuail, 1983, p. 82-83), media consumers are active agents that receive gratification in four areas: information, personal identity, social integration and entertainment. Similarly, (Ruggiero, 2000) characterises media usage motivation along social utility (information gain), personal identity, surveillance (as to know one's network) and diversion (emotional release).

Perhaps mass communication-based studies would not easily apply to social media and SNS in particular due to these services focusing on personalised content. Still, the mass media-related themes are universal enough to suit studying professional SNSs and therefore should be taken into account in forming a robust frame for its usage determinants. Defined further, the gratification areas would turn into the instrumental value of information, the value of professional identity and network development, and the value of emotional fulfilment of service in a professional SNS context.

Another categorisation for consumption value is the utilitarian-hedonic division, which has been used for analysing services in their extrinsic and intrinsic scope (Holbrook, 1996; Sweeney and Soutar, 2001). In the context of this thesis, the terminology refers to the two types of perceived value a service brings about in their usership. Extrinsic indicates "a means-ends relationship" where consumption results in "functional, utilitarian, or banausic instrumentality in accomplishing some further purpose" (Holbrook, 1996) or alternatively,

"goal-oriented" consumption that includes the perceived usefulness concept popular in technology acceptance models (Pura, 2005). On the other end of the spectrum, intrinsic means "consumption experience [which is] appreciated as an end in itself" (Holbrook, 1996) or "self-oriented, hedonic consumption" (Pura, 2005).

Despite the versatile angles of the utilitarian-hedonic approach, some authors have criticised it for being too narrow in scope for determining simultaneous a presence of both hedonic and utilitarian aspects that is often the case in technological or mobile-based services (e.g. Pura, 2005). For example, SNSs tend to enhance a so-called "flow experience" referring to concentration and perceived enjoyment (Hu and Kettinger, 2008) regardless of the type of usage. This arises from one of the main targets of these services; aside from growing their user base (network effects), to increase the time spent using these systems (commitment and recurrence). Thus, utility often mixes with enjoyment just due to the SNSs' business logic per se. In addition, the network related sociality was detected as an important part of professional SNS usage in the previous subsections of this thesis regarding professional SNS characteristics in personal identity and individual network development. This is one of the dimensions lacking in traditional utilitarian-hedonic perspective.

Seth et al. (1991) theorize consumer value creation by explaining why consumers choose to use or not to use a service over another using five value aspects (see Figure 4). The outcome of their study was that a consumption decision is a multidimensional construct of the perceived utility of consumption, as long as the context of decision making is individual, systematic and voluntary. All three apply in the case of professional SNS usage. The five values framework complements the utilitarian-hedonic dimensions and touches on the themes introduced by the uses and gratifications theory of mass communication. Additionally, they bring out the contextual and epistemic dimensions that have been seen relevant in studying informational services (Pura, 2005).

The framework also suits this thesis' purposes as it should be applicable for both describing and predicting consumption behaviour (Sheth et al., 1991). This theoretical framework has also seen some recent applications in online service and SNS studies. For instance, (Larivière et al., 2013) used perceived value for determining the "value fusion" spanning from the network of consumers and firms in mobile and SNS context. Interestingly, even this study focusing on organisational benefits did no cover the area of professional SNS. This thesis argues a professional SNS differs from the more recreational types of SNSs, thus requiring additional research perspectives.

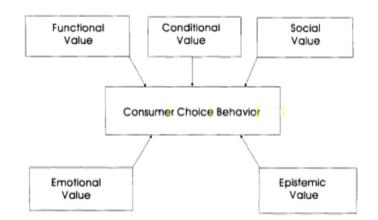


Figure 4. The five values influencing consumer choice (Sheth et al., 1991)

Of the different dimensions of perceived value of consumption, authors have used slightly different settings in studying the determinants of SNS usage. Most of the studies have derived from the work of Sweeney & Soutar (2001) who utilised three value dimensions: emotional, social and functional value, of which the last one was split to quality and price-related value (see Table 1). For instance, Hu & Kettinger (2008, p. 5) provide a conceptual example where they highlight social, or in their wording "relational value", as well as informational value manifested through social interdependency and "virtual networks in practice" that are "consolidated through the use of [SNS] services".

These aspects are also closely related to identity management and information sharing involved in professional SNS usage. Hsu and Laio (2010) utilised emotional, social and functional value split in performance/quality value and price/value for money in their perceived value construct, which was moderated with extro-/introversion type for finding differences between them.

Key dimension	Definition <sup>16</sup>	Sub-dimensions	Sources
Emotional value	Perceived value acquired through aroused feelings or affective states.	Entertainment value, Hedonic value	Sheth et al. (1991); Sweeney and Soutar (2001); Pura (2005); Hsu and Laio (2010), Kim et al. (2011); Larivière et al. (2013); Yang and Lin (2014)

Table 1: Summary Statistics for the Variable by Location

<sup>&</sup>lt;sup>16</sup> Derived from Seth et al. (1991), except for Social value fusing several definitions (Seth et al. 1991; Sweeney and Soutar, 2001; Kim et al. 2011), and Conditional value (Seth et al. 1991; Pura, 2005).

Functional value	Perceived value acquired through functional, utilitarian or performance enhancing premises.	Informational value, Convenience value, Monetary value, Quality/Perfor- mance value	Sheth et al. (1991); Sweeney and Soutar (2001); Pura (2005); Hu & Kettinger (2008); Hsu and Laio (2010); Kim et al. (2011); Larivière et al. (2013)
Social value	Perceived value acquired through association with one or more specific social groups; the enhancement of social self-concept and one's social well-being.	Identity value, Relational value	Sheth et al. (1991); Sweeney and Soutar (2001); Pura (2005); Hu & Kettinger (2008); Hsu and Laio (2010); Kim et al. (2011); Larivière et al. (2013); Yang and Lin (2014)
Conditional value	Perceived value acquired through a specific context or set of circumstances related to interaction between hu- mans, service content, user interface and the surrounding environment.		Sheth et al. (1991); Pura (2005); Pihlström and Brush (2008)
Epistemic value	Perceived value acquired through a specific context or set of circumstances related to aroused curiosity, provided novelty, and/or satisfaction of a desire for knowledge.		Sheth et al. (1991); Pura (2005); Pihlström and Brush (2008); Al-Debei and Al-Lozi (2014); Yang and Lin (2014)

Moreover, functional value has also been complemented or replaced with informational value (Hu and Kettinger, 2008; Larivière et al., 2013) and convenience value (Larivière et al., 2013), of which the latter relates either to efficiency, time and effort reducing or easing (Pihlström and Brush, 2008), and therefore closely related to the ease-of-use concept popular in IT/S models. The two other value dimensions have seen alternatives such as hedonic value (H. Yang and Lin, 2014) for emotional value and identity value as "a way to express personality, status and image" (Larivière et al., 2013, p. 8) for social value.

Altogether, the three value dimensions can be understood in a utilitarian-hedonic scale as in the functional value quality and performance related utility embodies utilitarian value, and the emotional and social value have been acknowledged to resonate with each other in several studies on consumer choice behaviour (Sheth et al., 1991; Sweeney and Soutar, 2001; Pihlström and Brush, 2008). The hedonic value embodiment of emotional and social value is compacted by Pihlström (2008, p. 78) into their similarity in their background in social psychology and that they both "explain needs of belonging, fun, comfort and esteem needs".

To draw a picture thorough enough, the characteristics of professional SNS also require what Pura (2005) describes context-based value dimensions. These dimensions were introduced by Sheth et al. (1991) and include conditional and epistemic value. Both have been notably less used in studying SNS usage determinants. Yang and Lin (2014) included epistemic value in their study on Facebook's usage determinants moderated by trust where they conclude that curiosity for new in terms of social connections and content, i.e. epistemic value, has a significant impact on user stickiness within low trust group. Mobile services research has also experimented with epistemic and conditional value by highlighting the novelty viewpoints of combining new technology and characteristics of on-the-go services (Pura, 2005; Al-Debei and Al-Lozi, 2014). Both essential features of the omnichannel properties of nowadays SNS usage.

#### Division to content and context related perceived value

The division to content and context-related value dimensions is pertinent in this thesis. Earlier studies have proposed that the structure and content of networking have been interpreted separately. Put simply, structure refers to the network as such whereas content is the end result from networking. Similar notions in services research have been made. Although both content and context related value support each other, they are different in nature in two ways: content related value is more directly and stably affecting continuous usage while context related is more transient in nature, and the effect is indirectly manifested through content related value (Pihlström, 2008).

Therefore, these findings parallel with the network characteristics found in professional SNS, where the structure of network represents a context, and resources available via a network the content. Similarly, the context is related to the circumstances where value is created. The particular circumstances further act as a boosting antecedent of content related perceived value (Pihlström and Brush, 2008). Following the above-mentioned reasoning, the chosen value dimensions (see Table 1) are divided into content and context-related with their relationships delineated accordingly.

#### Content-related perceived value

Emotion extends to various interpretations. Previous research has nevertheless settled for relatively similar conclusions on its definitions in different service consumption contexts. Kim et al. (2011) explain emotional value via playfulness and aesthetics in their study on digital items, matching the intrinsic self-oriented value description by Holbrook (1996), while Larivière (2013) see entertainment value parallel to emotional value in a mobile service and SNS context.

Entertainment certainly has its place even in the case of a service aimed at professionals. The previous subsections described how SNS providers usually tend to tempt their users for visiting the service more frequently. Here, an emotional response is an effective tool, especially in an enjoyable, entertaining matter. For instance, professional SNS can be used for killing time by just browsing the news feed for interesting (and possibly professionally relevant) content, or lurking other people's profiles. Yang and Lin (2014) used the term hedonic value for describing these aspects of determining SNS usage.

Emotional value can be also seen in a greater perspective. Other research describe this dimension as feelings or affective states arousing perception (Sheth et al., 1991; Sweeney and Soutar, 2001), while others refer to feeling good, relaxation or giving pleasure (Pihlström and Brush, 2008). This value dimension has also been confirmed to influence both intention to pay on SNS (which typically precedes usage in an SNS context) (Lu and Hsiao, 2010; Kim et al., 2011) and continuous usage itself (H. Yang and Lin, 2014). Hence, based on the previous evidence, the first hypothesis claims that:

# *H1. The continuous use of professional SNS is positively influenced by emotional value*

The most intuitive form of value perception from professional SNS usage would probably be related to utilitarian value. Sheth et al. (1991, p. 160) provide an extensive definition by referring to "functional, utilitarian or physical performance" as a resource of perceived value from product or service usage. Their views are supplemented by Sweeney and Soutar (2001) in that the aforementioned dimension of functional value can be understood as a function of quality and price. Similar conclusions were made by more recent studies, which also considered convenience value as a functional determinant (Pihlström and Brush, 2008; Larivière et al., 2013).

Descriptions vary from the ability to achieve a task easily or effectively to facilitating features or functions enabling relevant or timely information, for example. Information value was also used for describing utilitarian value for relevant content availability (Larivière et al., 2013). Shaikh and Karjaluoto (2015) list good interface design and convenient services as consumer trust building and driving continuous SNS usage. This study fuses the previous characterisations for one functional perceived value dimension with one exception. Monetary or price-value aspect is deliberately ignored in this study due to a relatively small amount of users paying for professional SNS usage, and vice versa, the regular usage basing on features free of a monetary cost. This was also shown in the empirical study sample introduced later in this thesis. The second hypothesis is therefore following:

# *H2. The continuous use of professional SNS is positively influenced by functional value*

Social value is hard to ignore in a study relating to social media in that they are built to facilitate social interactions (Larivière et al., 2013). The evidence for its inclusion to the framework is thus robust. The earlier subsections have described how identity, social relations and conversation characteristics structure professional SNS usage. Social approval and enhanced self-concept are terms used for social value by several literature pieces (e.g. Sweeney and Soutar, 2001). Some studies have also separated identity value from social value (Larivière et al., 2013). Identity is indeed an important theme in professional SNS context, as introduced earlier in this thesis, and due to its self-focusing or instrumental character in contrast to direct interaction sociality, it could be applied as a concept of its own. Still, identity build-up is never isolated but requires social interaction and recognition reflecting on others in a given network. In fact, social value pertains to choice imagery in relation to each social context, i.e. choosing what others think should be chosen (Sheth et al., 1991), and through this building one's "social self-image" (Kim et al., 2011).

One might also aim at a greater reputation among other professionals and thus increase employment possibilities and result in a higher job market position. Social respect, appreciation, recognition and displaying a social image have all been related to social value dimension (Pura, 2005; H. Yang and Lin, 2014). On the other hand, Holbrook (1996) puts esteemrelated reputation management into reactive and extrinsic corners. Thus, social value should provide thorough coverage of multiple social-related value from more emotional aspects (e.g. social approval, social encouragement) to more instrumental (reputation and network building). It is therefore included in the framework and hypothesised as:

## H3. The continuous use of professional SNS is positively influenced by social value

#### Context-related perceived value

On the contrary to content-related perceived value, context-related is assumed to have an indirect effect on continuous pSNS usage. According to Pihlström and Brush (2008), context-related perceived value is framed on the physical and psychological circumstances that have a transient basis. Here, it corresponds conceptually with conditional value which refers

to value happening due to "a specific situation or a set of circumstances", which similarly might arise from "temporary physical or social contingencies" (Sheth et al., 1991, p. 162). In addition, conditional value can be interpreted as a moderation parameter (Sweeney and Soutar, 2001).

In the case of professional SNSs, ones might utilise its features in various situations tied to time, unfamiliarity with a certain topic or conditions, a need to access particular information, or other uncertainty regarding professional life. For instance, there are times one requires a timely action for contacting leads or getting critical advice for decision making. The network of connections is the primary source of value then and delivered in a form of content. Another conditional situation is employment contingencies such as moving to another position inspired by a posting shown in professional SNS, or even a lay-off or career change. These circumstances are manifested through different content and thus, the content-related value. One will not probably use LinkedIn in a certain acute or critical situation just for fun if there is no utilitarian value expected. In practice, convenience, sociality and enjoyment are some of the value dimensions that enable utilising these services in different conditional and social perceived value.

Additionally, as context-based perceived value tend to mirror the settings in which professional SNS services provide a benefit from an alternative (Pihlström, 2008), the conditional value should represent those moments accordingly. Previous research also shows that conditional value enhances all the three content-related perceived value dimensions (Pura, 2005; Pihlström and Brush, 2008). Resulting from the previously mentioned conditional moments or circumstances in professional SNS usage, and the indirect effect of conditional value dimension on the usage continuance, the following hypotheses are formed:

#### H4. Emotional value is positively influenced by conditional value

## H5. Functional value is positively influenced by conditional value

## H6. Social value is positively influenced by conditional value

Other perceived value type transient in nature is epistemic value. It is related to service's "capacity to arouse curiosity, offer novelty or satisfy a desire for knowledge" by Sweeney and Soutar (2001, p. 207). There are several features and elements in professional

SNSs that support epistemic value perception. For instance, the news feed algorithm enables access to news and influencer postings, wake-up pop-ups flash announcements of the career shifts of connections and sending contact requests simultaneously feeds curiosity and "gamifies" usage experience by increasing the connections count and provides access to new information. In the end, novelty, as a representation of value, is demonstrated via different emotional, functional and social value. Hence, this psychological determinant drives the content related value perceptions.

Previous research suggests epistemic value is particularly important in studying products and services that highlight elements such as novelty, rarity or surprise (Sweeney and Soutar, 2001), or for detecting value pertaining to fresh content or learning new things or ways of doing (Pihlström and Brush, 2008). The above-mentioned use cases match the characteristics and examples of professional SNS usage and should, therefore, be applied for explanatory purposes. Although some researchers have not found direct effect between epistemic value and service commitment (Pihlström and Brush, 2008), it was considered an important dimension in SNS context (H. Yang and Lin, 2014).

Therefore, epistemic value creates the terms of reference for professional SNS usage circumstances representing various novelty value, which has been considered an important element in determining recurrent professional SNS usage. Also, it is assumed that novelty positively affects content-related perceived value scale by engendering situations and drawing lines to value perception in the ways discussed above. Thus, it is hypothesised that:

## H7. Emotional value is positively influenced by epistemic value

H8. Functional value is positively influenced by epistemic value

H9. Social value is positively influenced by epistemic value

#### 2.2.2 Professional Value Dimensions

As demonstrated by the characteristics of professional SNS, the identity building block in Kietzmann et al. (2011) framework suggests paying attention to different user roles is required to fully catch the different angles of usage determinants. And despite the distinction between the individual and professional value of professional SNS might not be self-evident, there are already suitable theoretical concepts that have been used in SNS context. These

concepts support the topic of this study by complementing the previously introduced individual value dimensions derived from the perceived value of service consumption. The previous literature introduced the social capital theory that explains perceived value from networking's point of view. Furthermore, social capital was utilised for defining the term perceived professional value that 1) describes the way one gathers information in a given network (the structure of network), and 2) how the network boosts the value of information (the content of network).

#### The structure of professional networks

The role of offline and online has been under discussion among scholars. Boyd & Ellison (2007) claimed SNS users rarely expand their network beyond their offline connections. This is challenged by the fact that most professional SNSs, such as LinkedIn, is established around creating social ties among its users. Therefore, it would be unwise to base users' network expansion solely in offline terms.

According to Resnick (2002), conscious investments for social interactions often complement the daily gain of social capital through everyday contacts. These conscious investments are particularly interesting when it comes to LinkedIn, as the service use would most often focus on contacts that complement the user's closest social networks. Also, SNSs usually have built-in tools to encourage networking. In LinkedIn's case, the "connections" and the "degrees of connection" features are particularly developed for supporting this.

Although there has been a debate on whether time spent online has positive or negative effects on social capital, the more recent views have found evidence on a positive net outcome. Earlier Internet studies often found negative effects due to the imminent alternative costs of less face-to-face engagement (e.g. Resnick, 2002). However, the effects tend to be positive when online time pertains to interactivity; and moreover, produce various type of social capital depending on the way of interaction within a network (Williams, 2006). And as the previous subsections have shown, interactivity is in-built in social media and social network sites.

Due to these qualities of social capital, it is particularly interesting in determining LinkedIn's professional value. After all, the resources that one can draw from social networks allows benefits such as gaining new and non-redundant information and connections that facilitate employment opportunities (Granovetter, 1977; Ellison et al., 2007). These findings are based on Granovetter's (1977) theory on weak ties. Weak ties were previously noted as a key concept in SNS analysis; they define those acquaintance level connections

that aid in finding job opportunities, for instance. Strong ties, in contrast, describe those connections receiving more time and energy, and which often provide emotional support (Granovetter, 1977). Moreover, the network's variety, enabled by LinkedIn's global presence and vast user base, forms social capital that values employers and employees while hiring (Erickson, 2001). A popular approach to study these benefits has been (Putnam, 2000) concept of bridging and bonding subscales of social capital (Williams, 2006; Ellison et al., 2007; Valenzuela et al., 2009), which spans from Granovetter's theory.

These two subscales of social capital refer to weak- (bridging) and strong-tie (bonding) relationships. Ellison et al. (2007, p. 1146) describe the former as "loose connections between individuals who may provide useful information or new perspectives for one another". Bonding social capital refers to closer relationships, embodying emotion, such as family and close friends. A more aggregate level description would refer to social capital across diverse social groups bridging, and across homogeneous social groups bonding, respectively (Valenzuela et al. 2009). Bringing this framework into SNS context, Ellison et al (2007) found a strong relationship between Facebook usage and both bonding and bridging social capital.

Due to Facebook and LinkedIn resemblance, bridging and bonding subscales of social capital should fit well in studying an SNS focused on professional life. One major aspect of LinkedIn usage is networking tools, including connection requests and a connection degree based interface for networking. Additionally, users appear to be less severe on accepting connection requests as they can usually be justified in instrumental terms, i.e. new connections can be turned out to be useful in some time.

Here, LinkedIn's purpose and features would intuitively put particular emphasis on promoting weak-tie relationships, a view supported by many authors (e.g. Ellison et al., 2007; Steinfield et al., 2008). Though it is evident that the Internet and SNS use facilitate new connections, i.e. weak-tie relationships, by providing new ways and channels to create and maintain contacts, opinions have been crossing on strong-tie effects. In the case of LinkedIn, making new connections and strengthening one's network might happen with the cost of keeping in touch with the closest colleagues, for instance. Moreover, resource-specificity and what Engström (2005) describes "object-centered sociality" are both important concepts when it comes to understanding weak ties. As one of the key objects or resources, social capital turns into value through employed benefits or other favourable circumstances (Scott, 2017). In the online world, this often beneficial process sees no particular place or time, a phenomenon Hogan (2012) describes as "context collapse". However, this context described by Hogan must be separated from the context of network structure, as the mobility

of SNS usage does not remove the need for the actual network of contacts. Nevertheless, it demonstrates mobile-related literature is relevant in studying professional SNS usage.

On the other hand, the service can act as an extra channel for connecting closer contacts, eventually increasing bonding social capital. Additionally, both previous usage and affiliations are reflected in how the SNS algorithms display content to users (Bergström and Belfrage, 2018). This is why the SNS news feeds tend to promote updates from those users with deeper network connections since they create better engagement.

As the bonding and bridging subscales of social capital eventually describe the nature of network relationships, the information itself, available via one's network, should also be acknowledged.

## The content of professional networks

The knowledge sharing concept has been popular in organisational studies (e.g. He et al., 2009; Hau et al., 2013) linking social capital and the information value gained through networks. However, the previous work on knowledge sharing and social media use relationship has revealed mixing end-results. For instance, (Treem and Leonardi, 2013) summarise that users perceive social media features varyingly when it comes to knowledge sharing. Furthermore, as the willingness to share one's knowledge varies, the knowledge sharing concept also overlooks the bigger picture of a user's access to the intangible resources LinkedIn provides.

To take into account activities related to a more firm-like behaviour (i.e. professional usage), firm-based approaches to resource access should be considered. Examples of these professional-level resources are a pool of potential employees, different skills and professional advice. After all, recruitment and advisory facilitation comprise a major part of LinkedIn features. In this setting, the role of an individual and a corporate representative easily parallel, thus creating a need for blended research setting this thesis utilises.

Therefore, a resource-based view of an individual's value determination via networking is required. In the case of professional SNS, users' resources should be defined as either knowledge of a particular professional field or other novel intangibles (information resources) or job market opportunities (employment resources), following Granovetter's (1977) theory on social tie strengths. This study assumes employment resources similar to informational resources since information is the actual, intangible resource job market opportunities eventually originate from.

In addition, knowledge could generally act as a way to better deal with other resources,

creating further value not only for the individual but also for the organisation the person is involved. Networking can also enable actual business opportunities (Ebbers, 2014). Yet, the linkage to organisational value determination is out of the scope of this thesis, since the focus is on an individual's behavioural intentions to use a professional SNS. Organisational value gain is therefore not taken into account despite there is a high possibility for a win-win situation for both the individual and organisation, especially if the incentives are propitious enough.

The resources enabled by pSNSs can be surprisingly diverse for an active user. The professional level application can span from simple professional tips in a contact's posting to raising raw capital. For instance, (Ngai et al., 2015, p. 41) list various resources available via the platform: "..inventions, creative product concepts, or new business strategies, can be empowered by the crowd.. [via the platform] ..people can raise funds to start or run a business, obtain advice or expertise from members of the crowd, source materials and goods from a wide range of sources, and engage in many other activities."

Further, active participation in public discussion can have positive implications. Due to platform algorithms, the more engagement the content one provides in the network gathers, the more this particular user should gain in terms of awareness, especially in persuasive content cases (D. Lee et al., 2014). Awareness can again create positive outcomes such as new contacts, knowledge transfer or in some cases, business opportunities (Ebbers, 2014). Hence, informational opportunities are vast besides the abovementioned cased, of which job listings is particularly exemplary in the case of LinkedIn. The resource-based approach should, therefore, apply particularly well in determining the value of professional SNS from a professional usage point of view.

Deriving from Hughes et al. (2007), who studied the value of networking activity in a business incubation setting, the resource pooling construct provides a proven way to learn about the role of "professional" resources in a network. A business incubation would also provide a rather similar context for the accumulation of valuable information in a network – as in the case of professional SNS. Resource pooling is, in fact, expanding the idea of knowledge sharing to "pool and share resources with others" (Hughes et al., 2007, p. 9). Additionally, it has a clear relationship with the bonding and bridging social capital, which describe the network ties resources are being pooled of (Ebbers, 2014). In other words, this construct would represent the "acquisition of informational value through the enactment of virtual networks of practice", in line with Hu and Kettinger, (2008, p. 5).

Thus, based on the previous discussion the tenth, eleventh and twelfth hypothesis are:

*H10: The continuous use of professional SNS is positively influenced by resource pooling* 

## H11: Resource pooling is positively influenced by bridging social capital

#### H12: Resource pooling is positively influenced by bonding social capital

According to Adler & Kwon (2002), the informational benefits of social capital relate to the content and structure of one's network. To take into account both the content (information resources) and structure (network relationships) of networking, the resource pooling construct, as well as the bonding and bridging subscales of social capital have been introduced. Both constructs are backed by extensive literature and combined should diversely describe the particular value of a professional SNS from a professional user role viewpoint. The content and structure aspects of networking were also assumed to assimilate with the content and context-related perceived value. Therefore, both individual and professional value perception can be framed analogously.

Finally, the linkage between personal and professional perceived value is realised in the relationship between social capital and social value. In this study, social capital describes the context of networking by illustrating the value perceived via strong and weak social ties. These ties are intuitively related to social value perception, which is indeed reflected on previous service and SNS research. Hu & Kettinger (2008) link social capital theory with relational value derived from an individual's social networks in continuous SNS usage. In social capital theory, relational dimension refers to network properties, i.e. the networking context. Conclusively, resource pooling describes a professional information value (Hu and Kettinger, 2008; Larivière et al., 2013), and social capital draws conditions for those information value resources, that is acquiring informational content in its various forms.

As social value is in this thesis defined via the association with one or more specific social groups, it basically requires the networking conditions described by social capital dimensions. The linkage to social self-concept and social well-being in a professional SNS context is usually determined in a broad sense of social conditions. Also, Nahapiet and Ghoshal (2000, p. 244) describe how the aspects of social value are fulfilled via "sociability, approval and prestige". As the previous subsections have contemplated, the nature of LinkedIn's connections feature also suggests the majority of these sociability value aspects

would relate to weak ties due to their rather "shallow" nature.

Therefore, weak social ties should be the main focus of studying this relation. Strong ties probably realise better through other social communication forms and are generally not the primary focus on professional SNS usage. Hence, based on these previous notions, and for testing the model's relational capability, the following hypothesis is included:

H13: Social value is positively influenced by bridging social capital

## 2.3 Final Research Model

This thesis introduces a multifaceted framework for studying professional SNS usage determinants. The drivers for continuous usage are built around perceived value theory. The traditional dimensions of the perceived value of service consumption are complemented with social capital theory and the resource pooling concept, assimilating these two perspectives into context and content related value scale. This structure aims at fusing both individual and professional usage aspects.

This kind of approach enables taking into account the aspects of both usage and gratification theory and technology-based studies. The introduced set of perceived value dimensions conceptually cover the drivers of mass media consumption (U&G theory), as shown in this study earlier. In addition, the framework's multifaceted perceived value supplements the utility dimension of several technology or IT/S usage models, such as TAM, while acting as a preferable predictor of user recurrence compared with the concept of satisfaction (Pihlström, 2008). It is also particularly built around the assumption of continuous usage.

Both utilitarian and hedonic value are included as suggested by previous literature. The hedonic constructs social and emotional value are complemented by the utilitarian constructs functional and resource pooling value. This framework then continues the previous work in perceived value of SNS continuance studies (e.g. Lu and Hsiao, 2010; Al-Debei et al., 2013; H. Yang and Lin, 2014) by expanding the setting for professional SNS and by acknowledging the content and context related value elements.

The framework is structured as following (Figure 5). First, epistemic, conditional and bonding and bridging social capital constructs act as antecedents, and their effect is indirectly determined via mediator variables. Second, the mediator variables include those with direct effects on the continuous usage outcome construct; functional, social and emotional value constructs, as well as the resource pooling construct as a form of professional informational value. The social value construct is assumed to be influenced by three contextual constructs: epistemic, conditional and bridging social capital. The outcome variable is named as professional SNS (pSNS) usage reflecting the service continuance.

The next thesis section introduces a methodology for testing the framework: should the chosen theoretical constructs be included, are the interrelations as hypothesised and what is their relative effect on the studied outcome?

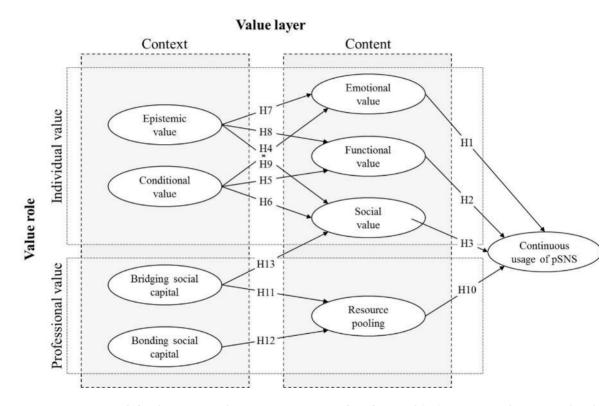


Figure 5. Framework for determining the continuous usage of professional SNS; context and content related value constructs and research hypothesis

# 3 Methodology

This section describes the methodology of this thesis. After formulating the research problem and hypothesis based on extensive primary and secondary research, the aim of the following subsections is to empirically verify the theoretical framework conducted in the previous section on literature. More specifically, the steps of research design, data collection and analysis methods are described.

## 3.1 Survey Creation

This thesis aims at testing a conceptual social networking model generated in the previous section. The model proposes five individual value factors and two business value factors, based on a thorough go-through of previous research and relevant literature. To support and complement earlier studies on value determination, this new context requires testing the research model.

The first part of the empirical section is about survey creation as a basis for data collection. The following principles were taken into account when creating the survey: 1) due to the scarce material for studying professional SNSs, the survey uses multiple proven constructs from relevant studies referring to the thesis' framework concepts; 2) the measurement units of each construct are based on previously verified terms and semantic forms for better validity; 3) the research design follows proven methodology in behavioural and managerial sciences, thus utilising a multi-item scale for each construct.

Content- and context-wise, the target group was the current users of LinkedIn, meaning a formulation of the questionnaire for studying the actual use of a professional SNS (pSNS). The survey content follows the previously formed framework based on approved literature on the concepts of service consumption, resource pooling and social capital. The described concepts were then formed into eight more specific pSNS consumption value constructs based on recent findings on the same topics. The eight constructs formed are emotional, functional, social, conditional, epistemic, resource pooling, and bonding and bridging social capital. The actual measurements for each construct were formed using a multi-item scale method for increasing measurement reliability (e.g. Sweeney and Soutar, 2001).

As the research question is to study the value drivers of professional SNS usage, a separate construct for continued use was created in addition to those of service consumption. The measured items for all nine constructs were used semantically unaltered from similar

studies to assure reliability, yet some modifications were required for better fit the study context. Table 2 lists the measurement items linked to each research construct.

Construct	Item	Mean	Standard Error	Median	Mode	Standard Deviation	Sample Variance
Conditional value	Con01	3,9	0,2	4,0	5,0	1,5	2,1
	Con02	3,2	0,2	3,0	2,0	1,6	2,7
	Con03	2,9	0,2	3,0	2,0	1,3	1,8
	Con04	3,5	0,2	3,5	4,0	1,4	2,0
	Con05	3,0	0,2	3,0	2,0	1,4	2,0
	Con06	4,0	0,2	4,0	4,0	1,5	2,4
	Con07	3,3	0,2	3,0	2,0	1,4	2,0
Emotional value	Emo01	3,6	0,2	4,0	4,0	1,5	2,2
	Emo02	4,1	0,2	4,0	4,0	1,4	2,1
	Emo03	4,7	0,2	5,0	6,0	1,6	2,7
	Emo04	4,0	0,2	4,0	5,0	1,5	2,3
	Emo05	3,9	0,2	4,0	5,0	1,4	2,0
Epistemic value	Epi01	2,7	0,2	2,5	2,0	1,2	1,5
±	Epi02	4,7	0,2	5,0	5,0	1,5	2,2
	Epi03	2,8	0,2	3,0	2,0	1,3	1,8
	Epi04	3,5	0,2	3,0	2,0	1,6	2,6
	Epi05	4,4	0,2	5,0	5,0	1,5	2,2
Functional value	Fun01	4,4	0,1	5,0	5,0	1,1	1,1
	Fun02	4,2	0,2	4,0	5,0	1,2	1,5
	Fun02	5,3	0,2	6,0	6,0	1,4	2,0
	Fun04	4,5	0,2	5,0	5,0	1,1	1,9
Resource pooling	Res01	3,8	0,2	4,0	5,0	1,3	1,8
Resource pooling	Res02	3,4	0,2	3,0	2,0	1,5	2,2
	Res03	3,5	0,2	3,0 4,0	4,0	1,5	2,2
	Res04	3,3	0,2	3,0	2,0	1,3	1,7
	Res05	2,8	0,2	3,0	2,0	1,5	1,7
	Res06	2,8	0,1	3,0	2,0	1,2	1,4
Social Capital - Bonding	ScBo01	3,7	0,2	4,0	4,0	1,2	2,0
Subscale	ScBo01 ScBo02	4,2	0,2	4,0	4,0 5,0	1,4	2,0 2,8
Subscule	ScBo02 ScBo03	4,2 2,9	0,2	4,0 2,5	2,0	1,7	2,8
	ScBo03 ScBo04		0,2		2,0 5,0	1,0	2,3 1,7
$G \rightarrow 1 G \rightarrow 1 D \rightarrow 1 + 1$		4,6		5,0			· · · ·
Social Capital - Bridging	ScBr01	3,4	0,2	3,0	3,0	1,6	2,6
Subscale	ScBr02	2,6	0,2	2,0	2,0	1,2	1,4
	ScBr03	4,3	0,2	5,0	5,0	1,6	2,4
	ScBr04	4,1	0,2	4,0	4,0	1,5	2,2
~	ScBr05	3,1	0,2	3,0	2,0	1,3	1,7
Social value	Soc01	3,5	0,2	3,5	4,0	1,4	2,1
	Soc02	4,2	0,2	4,0	5,0	1,4	1,9
	Soc03	3,3	0,2	3,0	4,0	1,3	1,6
	Soc04	3,8	0,2	4,0	5,0	1,5	2,3
	Soc05	3,2	0,2	3,0	4,0	1,3	1,8
	Soc06	2,9	0,2	3,0	3,0	1,5	2,3
	Soc07	3,7	0,2	4,0	5,0	1,4	2,0
Continued Use	Use01	4,2	0,2	4,0	5,0	1,3	1,8
	Use02	4,2	0,2	4,5	5,0	1,5	2,3
	Use03	3,0	0,2	3,0	2,0	1,6	2,6
	Use04	3,3	0,2	3,0	2,0	1,8	3,2
	Use05	5,4	0,2	6,0	6,0	1,4	2,0
	Use06	3,0	0,2	3,0	1,0	1,7	2,9

Table 2: Descriptive statistics of the survey items

Methodology							44
	Use07	3,4	0,2	3,0	4,0	1,5	2,3
Total		3,8	0,2	4,0	3,0	1,2	1,5

See Appendix A1 for a complete list of questionnaire items, questions and sources

All measurement items were scaled in a 7-point Likert scale in the questionnaire. Three items were reverse scaled for improved validity, i.e. to spot anomalies and consistency in observations. In addition, the data was enriched with several questions regarding respondent backgrounds. The basic demographics were complemented with questions on working life and LinkedIn usage, of which the latter was used for filtering out non-target group respondents. Finally, the questionnaire was pre-tested with four target group members for ensuring readability and context-relevancy. Three measurement items were adjusted in wording after this<sup>17</sup>

## 3.2 Data Collection and Data Set

The data collection was implemented via an online questionnaire during the year 2015. The questionnaire link was shared on Facebook to channels mostly consisting of university students, and to an email list of 174 executives. Two sources created a total of 70 responses of which 27 were from Facebook and 35 from the email list. Two respondents followed a link shared in their corporate intranet; these observations are included in the email list respondent group since the respondents were similarly targeted. The sample should be adequate from the target point of view. First, corporate respondents are those with the most experience on LinkedIn and its usage for professional purposes. Second, over half of the student respondents had more than 2 years of full-time professional experience, and over 80 % had used LinkedIn over a year. In addition, students' habitual online behaviour should support usage continuance research (Limayem et al., 2007).

Question	Answer option	Frequency	Percentage
	No	6	8,6
Do you own a LinkedIn account?	Yes*	64	91,4
	Email list	37	57,8
Recruitment source	Facebook	27	42,2
Gender	Do not want to disclose	2	3,1

<sup>17</sup> ScBo02, Res03 and Con36

	Female	25	39,1
	Male	37	57,8
	Under 36	29	45,3
Age group	36 or over	33	51,6
	Do not want to disclose	2	3,1
	0-5 years	26	41,9
Full-time work experience	+5 years	36	58,1
	Do not want to disclose	2	3,1
	Less than a year	6	9,4
LinkedIn experience	1-3 years	19	29,7
	More than 3 years	39	60,9
	Several times a week	33	51,6
LinkedIn frequency	Once a week	17	26,6
	More seldom	14	21,9
Total		64	100,0

\*Respondent data set

When it comes to LinkedIn usage, 78 % of respondents said to visit there at least on a weekly basis, and 13 % every second week. Again, 91 % had been using LinkedIn for over a year. Over half of the respondents have more than three years of experience from the service. The weekly dosage of LinkedIn was on average an hour or less. The gender split was 40:60 female-male, and respondent age group was rather evenly distributed (Table 3). Thus, the respondent set should well represent the target group of active LinkedIn users.

Finally, six observations were left out as they did not own a LinkedIn account. In consequence, due to the moderate number of respondents, none of the background questions was used in the empirical section for testing respondent group differences. The descriptive statistics did not reveal any anomalies resulting in a final data set of 64 observations. This final data was then used for further hypothesis testing.

Given that the research model expects strong interrelation between factors affecting the value gained from LinkedIn usage, it leaves out traditional analytical methods such as factor or regression analysis. Similar problems were indicated in the previous studies on value determination. This factor multicollinearity and the method for overcoming it is discussed next.

## 3.3 Hypothesis Testing

The goal of hypothesis testing is to predict Y from X to describe commonality, where Y is the predicted, i.e. professional SNS (pSNS) continuous usage, and X are observations. The observations are those theoretical constructs suggested by the research model. Since the framework of this thesis consists of several constructs that include various sets of variables, regular regression is not sufficient but requires a path model approach. PLS structural equation models (PLS-SEM) have been popular in hypothesis testing in similar multi-construct studies (e.g. Hair Jr et al., 2017). Here, specialised software is handy and the hypothesis tests were made using the SmartPLS software (version 2.0). SmartPLS should also be a better fit for small data samples and high predictor multicollinearity due to its component-based methodology in contrast to covariance-based (CB-SEM) applied in similar software, such as AMOS (Garson, 2016, pp. 8).

Moreover, of the two SEM methods, PLS-SEM is said to better suit both exploratory and confirmatory research purposes, of which the latter is more relevant in this thesis. In addition, PLS-SEM allows for both testing existing theories as well as predictive interpretations for managerial purposes. (Henseler et al., 2016; Hair Jr et al., 2017)

PLS-SEM also suits the data set method-wise, as the multi-point Likert scale used in the questionnaire is equidistant, i.e. a semantically symmetric scale of Likert items (Henseler et al. 2016). The actual scale for a question "How much do you agree with the following statements about LinkedIn usage?" was from "I strongly disagree" [1] to "I strongly agree" [7]. In addition, the data meets modelling requirements for being standardised as all measured variables are in the same 1-7 scale. SmartPLS also prepares the data set for modelling by standardising it between -1 and 1.

Formally, PLS-SEM approach consists of a two-step path modelling of two linear equation sets (Figure 6). First, the measurement model explains how the nine constructs of the study framework are modelled by several indicators. These indicators are measures of the individual claims in the data set. The theoretical constructs of the framework are called latent variables in PLS-SEM. Second, the structural model measures latent variable relationships which are key in verifying the research hypothesis. The evaluation of the PLS-SEM results proceeds by examining both models separately so that a valid measurement model precedes structural model analysis. (Henseler et al., 2016; Hair Jr et al., 2016; Sarstedt et al., 2017)

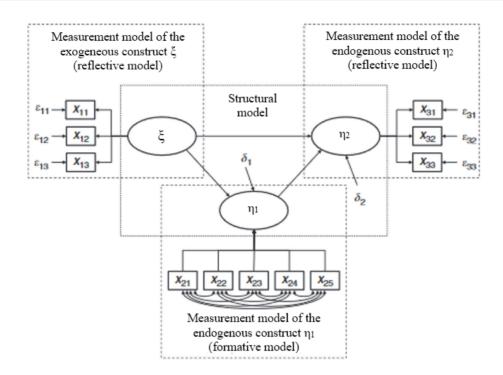


Figure 6. PLS-SEM model example, adapted from Henseler et al. (2016)

To also conclude the terminology, a construct refers to the theoretical conceptual construct such as Conditional value, while the term latent variable refers to its technical form used in the modelling. Similarly, an indicator is a term for a questionnaire item connected to each conceptual construct. The next section describes how the PLS-SEM approach and research data set were used for testing the research hypothesis.

# 4 Empirical Study

After weighing on the methodology, this section describes the steps for gaining empirical findings to support the research hypothesis. First, a discussion on statistical validity is introduced before evaluating the measurement and structural models of the PLS-SEM. Second, the final research model is presented and the results analysed.

## 4.1 Model Validation Criteria

The initial model goodness is determined by introducing criteria for (1) the sample size, (2)  $R^2$  and effect sizes and (3) t-tests. First, in terms of sample size, there are a few criteria to be fulfilled; first, the rule-of-thumb of 1:10 in dependent-independent ratio following the guidelines of "largest multiple regression" (Chin, 1998, p. 311) and second, the recommended N per minimum  $R^2$  (statistical fit measure) per endogenous construct and statistical significance level. The first rule suggests the dependent construct with the highest number of independent constructs should not exceed 1:10 ratio (Chin and Newsted, 1999, p. 327). The framework in question has four independent constructs (i.e. latent variables) at most. Thus, the current sample size should meet the first requirement (64 > ~40) and allows for result generalisations.

As mentioned in the previous section, the dual level nature of PLS-SEM creates such conditions so that normal multiple regression guidelines apply (Chin, 1998). As for the second criteria, given that the maximum number of indicators per latent variable is five, Hair et al. (2016) suggest a minimum sample of 70 for detecting  $R^2$  of 0,25 at 5 % significance level. For  $R^2$  of 0,5 at the same 5 % level, the suggestion is 45, respectively. Following a similar pattern, Figure 7 shows a sample size of 64 would suggest  $R^2$  very close to 0,3 at 5 % significance level<sup>18</sup>.

<sup>&</sup>lt;sup>18</sup> Exponentially plotted using the recommendation points of sample sizes by Cohen (1992), adapted by Hair et al. (2016), with the statistical power of 80 %, and significance of 5 %, respectively.

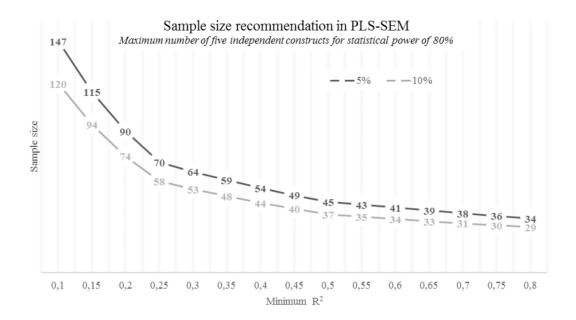


Figure 7. PLS-SEM samples size recommendation, adapted (Cohen, 1988; Hair Jr et al., 2016)

Yet, one should always interpret results with care as the sample size is low. Even though the PLS-SEM should be a better fit than CB-SEM for examining lower sample sizes (Wong, 2013), the common rule of increasing sample size creates better consistency in results applies in PLS-SEM context too (e.g. Sarstedt et al. 2017). However, as indicated earlier, the data set of this thesis should provide enough robustness as long as R<sup>2</sup> figures exceed 0,3.

Second, Cohen (1988) suggests the following guidelines for effect sizes for social and behavioural sciences:  $R^2 = 2\%$  as a small effect,  $R^2 = 13\%$  as a medium effect, and  $R^2 = 26\%$  as a large effect. Moreover, the background theory section of this thesis should indicate noticeable effects due to covering the expected major drivers of pSNS usage. This would suggest expecting "large" effects, and consequently, point in the direction of small sample applicability.

Third, the framework and theory-based hypothesis of this thesis suggest using onetailed significance tests as all constructs included in the framework assume positive interrelationships (e.g. Kock, 2015). In other words, although two-tailed tests are normally recommended, the hypotheses imply whether we should accept or reject a positive relationship between independent and dependent latent variables. Thus, should a positive effect exist (at acceptable levels), it would mean the null hypothesis is rejected.

## 4.2 The Initial Measurement Model

The initial data set was formed so that an individual indicator (questionnaire claim) was to represent a given theoretical construct (see Table 2, sectionsubsection 3.1.). For example, indicator Con01 is a single reflection of the Continuous use construct. By using several indicators per construct, the increased sample size should increase construct validity as long as the indicators are highly correlated, and thus represent "all indicators" of each theoretical construct (Sarstedt et al., 2017). This is also the modus operandi in similar behavioural research where a "reflective" measurement model should be used (Henseler et al., 2016).

As suggested by the PLS-SEM guidelines, the structural model should be evaluated not before the measurement model meets acceptable levels of validity. Following Hair et al (2017), there are several evaluation criteria for the measurement model which are demonstrated next. However, as the PLS-SEM adaptation is still evolving, only the most established evaluation criteria are used and skipping the most recent, debatable tests such as Goodness-of-Fit measures.

Construct	Cronbach's Alpha	rho_A	Composite Reliability	Average Vari- ance Extracted (AVE)
Conditional	0,86	0,86	0,89	0,54
Emotional	0,88	0,90	0,92	0,74
Epistemic	0,72	0,72	0,82	0,47
Functional	0,80	0,83	0,87	0,62
ResourcePooling	0,90	0,91	0,93	0,68
SC-Bonding	0,59	0,68	0,78	0,55
SC-Bridging	0,79	0,80	0,86	0,55
Social	0,85	0,86	0,89	0,53
pSNS usage	0,87	0,87	0,90	0,60

Table 4: Construct reliability and validity of the initial measurement model

Table 5: Discriminant validity; Fornell-Larcker Criterion

Construct	Condi- tional	Emo- tional	Epis- temic	Func- tional	Resource Pooling	SC- Bonding	SC- Bridging	Social	pSNS usage
Conditional	0,74								
Emotional	0,70	0,86							
Epistemic	0,70	0,76	0,69						
Functional	0,59	0,74	0,51	0,79					
ResourcePooling	0,76	0,65	0,68	0,46	0,82				
SC-Bonding	0,63	0,53	0,52	0,45	0,67	0,74			
SC-Bridging	0,76	0,65	0,74	0,46	0,85	0,67	0,74		

Empirical Study									51
Social	0,65	0,58	0,68	0,47	0,71	0,41	0,72	0,73	
pSNS usage	0,78	0,85	0,75	0,64	0,72	0,55	0,75	0,72	0,78

See Appendices for a comprehensive Cross loadings table

The assessment criteria that evaluate reflective constructs are internal consistency reliability, and convergent and discriminant validities (Hair Jr et al., 2017). Internal consistency and construct convergent validity are shown in Table 4. Construct reliability levels are indicated by three measures: Cronbach's Alpha, Rho-alpha and composite reliability which should all meet the accepted levels. According to Hair et al. (2016), Cronbach's alpha should be above 0,6, and the composite reliability above 0,7, respectively. Rho-alpha levels, "the most important reliability measure for PLS" (Henseler et al., 2016, p. 10), should be above 0,7 following (Dijkstra and Henseler, 2015) guidelines. Finally, (Fornell and Larcker, 1981) suggest average variance extracted (AVE) levels above 0,5 for accepting convergent validity.

The initial measurement model returns inconsistent values for two constructs. Epistemic does not meet the accepted AVE level (0,47 < 0,5), thus failing the convergent validity test, while SC-Bonding internal consistency is below the threshold. Discriminant validity tests (Table 5) also revealed several consistency issues regarding the construct indicators in Conditional, Epistemic, Resource Pooling, SC-Bridging and pSNS Usage. In addition, the variance inflation factors (VIF) implied for some multicollinearity due to values higher than 4,0 in the case of Emotional, Resource Pooling and pSNS Usage (Garson, 2016, p. 71). Therefore, the measurement model evaluation suggests revamping latent variables for better validity. This procedure is described next.

## 4.3 Revised Measurement Model

To meet measurement model evaluation criteria, the indicator sets for problematic latent variables noted earlier had to be revised. The questionnaire was conducted under an assumption that some of the individual items may not necessarily represent its conceptual construct after data was examined. Therefore, by removing some of the non-functioning indicators, the latent variable should still represent the responding construct as there are several questionnaire items per construct.

Construct	Items in the initial model	Items in the final model	Items removed	Issues, in the given order	
Conditional	7	4	Con01, Con04, Con06	IL, FL, IL	
Emotional	4	2	Emo02, Emo04	VIF, FL	
Epistemic	5	2	Epi01, Epi03, Epi04	IL, AVE, AVE	
Functional	4	4			
Resource Pooling	6	5	Res05	VIF	
Social Capital: Bonding	3	1	ScBo01, ScBo03	AVE, IL	
Social Capital: Bridging	5	3	ScBr01, ScBr03	IL, FL	
Social	7	5	Soc01, Soc06	IL, IL	
pSNS usage	6	4	Use03, Use05	IL, VIF	
Total items	47	30			

*Table 6: Measurement model changes* 

*IL* = *Item loading* <0,7; *FL* = *Fornell-Larcker Criterion*; *VIF* = *Multicollinearity*, *VIF*>4; *AVE* = *Low AVE*<0,5

The procedure preceding the final measurement model included several modelling iterations. After each iteration, the model was examined for construct internal consistency reliability, discriminant validity and collinearity after which indicators were dropped in case some of the measurement model criteria was not met. Indicator qualification was done by screening for anomalies in outer loadings<sup>19</sup> and indicator-construct cross-loadings (similar to Fornell-Larcker criteria<sup>20</sup> except for indicators), as suggested by Henseler et al. (2016). The VIF values were also taken into account to remove highly intercorrelated indicators, which generally enhances regression models (Garson, 2016).

Construct	Cronbach's Alpha	rho_A	Composite Reliability	Average Vari- ance Extracted (AVE)
Conditional	0,85	0,86	0,90	0,69
Emotional	0,70	0,71	0,87	0,77
Epistemic	0,82	0,86	0,92	0,85
Functional	0,80	0,82	0,87	0,62
ResourcePooling	0,88	0,89	0,91	0,68
SC-Bonding	1,00	1,00	1,00	1,00
SC-Bridging	0,77	0,78	0,87	0,69
Social	0,82	0,83	0,87	0,58

Table 7: Construct reliability and validity of the revised measurement model

<sup>19</sup> Outer loadings mark the construct-indicator relationship which should be above 0,7 for sufficient reliability (Sarstedt et al., 2017)

 $^{20}$  Fornell-Larcker criterion (1981) (Table 5) compares the shared variance within (AVE<sup>2</sup>) a construct to the squared correlation between other constructs (shared variance between), where variance within should exceed variance between (Hair et al., 2017)

Empirical Study				53
pSNS usage	0,81	0,81	0,87	0,63

As a result, SC-Bonding was subtracted to a single-item construct (i.e. single indicator latent variable). The inclusion of a single-item construct raises few notions; construct validity wise it is robust as scores are identical to the item's, yet the predictive validity of a singleitem construct might be lower than a multi-item (Sarstedt et al., 2017). The multi-item scale is useful to prevent measurement error in demonstrating the robustness of a construct. However, the measurement error is not implicitly overly high in a single-item case and the identification and convergence problems are not an issue when PLS-SEM is utilised (Garson, 2016, p. 31).

In addition, all constructs but Functional value were reduced in the number of indicators in able to meet the composite reliability, Fornell-Larcker criteria and acceptable multicollinearity. Table 6 summarises changes in the measurement model. It should be noted that for Emotional construct, the internal consistency reliability measures show adequate numbers except for Cronbach's alpha, which is below 0,7 (0,699). However, as several scholars prefer composite reliability over Cronbach's alpha due to its tendency to underestimate reliability (e.g. Garson, 2016; Henseler et al., 2016), the construct was not removed from the structural model estimation. Revised model construct reliability measures are listed in Table 7. To conclude, after a thorough overview of multicollinearity, and construct reliability and consistency, a valid measurement model was found without compromising on the initial research framework.

## 4.4 Structural Model

As suggested earlier, the structural model follows the thesis framework which is key in resolving the research questions and hypothesis. The conceptual constructs are represented by the latent variables in the model. The main purpose of the structural model phase is to analyse latent variable interrelations, represented by path arrows between latent variables in a PLS-SEM model (Figure 8). According to Henseler et al. (2016), these linear approximations that show directional relationship between latent variables should be regarded as intermediaries only for the actual theoretical assumptions. Still, the effects and variance explained by the latent structures show evidence for rejecting the null hypothesis, as demonstrated next.

Before analysing the actual predictive capability of the model, one must ensure the

validity of the constructs. These procedures include testing for excess multicollinearity among constructs, as well as examining the coefficients of determination ( $R^2$ ) per endogenous latent variable. The former is detected in construct-specific VIF values and none of them exceeds the limit of 4,0, suggesting collinearity is not an issue (Sarstedt et al., 2017).  $R^2$  indicates the amount of variance explained per construct by the structural model. All the endogenous constructs shown in Figure 8 are classified "strong" by Cohen (1988). The  $R^2$  levels would also well pass the Hair et al. (2016) guidelines ( $R^2 > -0.3$ , N=64) for small sample sizes.

For the actual hypothesis testing, the path coefficients (regression weights) shown in the arrows in Figure 8 should be at a sufficient level. According to Cohen (1988), strong causal relations require effect sizes above 0,35, and medium level causality an effect size above 0,15, respectively. Of the given path coefficients, Resource Pooling -> pSNS usage and Functional -> pSNS Usage show medium effect, and the rest of the paths indicate strong effect. Finally, since correlations and linear regressions are involved, the last part of checking the structural model validity is testing for its statistical significance.

Significance tests on PLS-SEM require a technique called bootstrapping, which enables deriving standard error estimates from a generated set of subsamples. 5000 subsamples were generated in SmartPLS without sign changes and with 64 (original sample size) cases, as recommended by Wong (2013).

As seen in Table 8 below, all paths but one are significant at 95 % confidence level (p<0,05). This means a null hypothesis is rejected for the listed causal effects given that all the outer loadings are significant at 1% level (Figure 8). Together with strong R<sup>2</sup> values and medium to large effect sizes, it can be concluded that the model has predictive power and allows for generalisations.

Hypothesis	Path	Path co- efficient	T Sta- tistics	P Values	5.0%	95.0%	Hypothesis supported
H1	Emotional -> pSNS usage	0,32	3,69	0,000**	0,18	0,46	Y
H2	Functional -> pSNS usage	0,19	2,09	0,018*	0,02	0,32	Y
H3	Social -> pSNS usage	0,37	4,14	0,000**	0,21	0,51	Y
H10	ResourcePooling -> pSNS usage	0,19	1,86	0,031*	0,03	0,36	Y
H4	Epistemic -> Emotional	0,38	3,72	0,000**	0,20	0,53	Y
H5	Epistemic -> Functional	0,34	2,93	0,002*	0,14	0,51	Y
Н6	Epistemic -> Social	0,24	2,24	0,013**	0,06	0,40	Y
<i>H</i> 7	Conditional -> Emotional	0,44	4,81	0,000*	0,28	0,59	Y
H8	Conditional -> Functional	0,41	4,41	0,000*	0,23	0,54	Y

Table 8: Hypothesis test results

H9	Conditional -> Social	0,20	1,65	0,050	0,00	0,40	Ν
H11	SC-Bridging -> ResourcePooling	0,64	7,25	0,000**	0,46	0,76	Y
H12	SC-Bonding -> ResourcePooling	0,25	2,47	0,007**	0,08	0,41	Y
H13	SC-Bridging -> Social	0,47	3,85	0,000**	0,24	0,65	Y

## Table 9: Indirect paths

Path	Path co- efficient	T Sta- tistics	P Values	5.0%	95.0%
Epistemic -> pSNS usage	0,27	3,84	0,000**	0,15	0,38
Conditional -> pSNS usage	0,29	3,83	0,000**	0,18	0,42
SC-Bridging -> pSNS usage	0,30	4,21	0,000**	0,18	0,41
SC-Bonding -> pSNS usage	0,05	1,43	0,076	0,01	0,13
Conditional -> Emotional -> pSNS usage	0,14	2,68	0,004**	0,07	0,24
Epistemic -> Emotional -> pSNS usage	0,12	2,72	0,003**	0,05	0,20
Conditional -> Functional -> pSNS usage	0,08	1,85	0,032*	0,01	0,14
Epistemic -> Functional -> pSNS usage	0,06	1,54	0,062	0,01	0,15
SC-Bonding -> ResourcePooling -> pSNS usage	0,05	1,43	0,076	0,01	0,13
SC-Bridging -> ResourcePooling -> pSNS usage	0,12	1,75	0,040*	0,02	0,25
Conditional -> Social -> pSNS usage	0,07	1,43	0,077	0,01	0,18
Epistemic -> Social -> pSNS usage	0,09	2,00	0,023*	0,03	0,17
SC-Bridging -> Social -> pSNS usage	0,17	2,86	0,002**	0,08	0,28

Significance levels: \*\* p < 0.01, \* p < 0.05

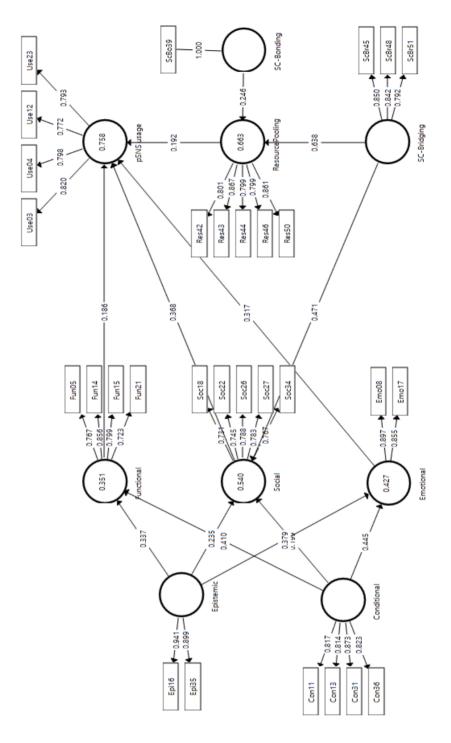


Figure 8. Final research model; measurement model outer loadings and structural model with path coefficients and  $R^2$ 

# 4.5 Analysis

Overall, the results indicate a functional model was found. Despite relatively small sample size, the found effect sizes  $(R^2)$  suggest enough robustness, indicating claim for the first

research question of which value determinants drive continuous professional SNS usage. The measurement model issues were controlled by addressing the item multicollinearity. As a result, some of the items included in the original model were dropped to increase measurement model validity. This was initially prepared for by choosing extra items for the questionnaire. Twelve out of thirteen hypotheses were confirmed suggesting the second research question for the relative strengths of professional SNS continuance determinants can be analysed.

As suggested by Cohen's (1988) effect size estimations, the research topic of this thesis covers an area often inflected by uncertainty. Similar studies using perceived value concept have indicated R2 values between 0,3 and 0,5 (Pihlström, 2008; Al-Debei and Al-Lozi, 2014; H. Yang and Lin, 2014), yet higher remarks have been made using a more general research target (Z. Yang and Peterson, 2004). Therefore,  $R^2$  (0,76) of pSNS Usage construct indicates the chosen determinants should explain a major part of its variance in the given context. The strong variance explained figures also demonstrate the model's predictive power. This is supported by running a blindfolding procedure using an omission distance of 7, as suggested by Sarstedt et al. (2017) (see Appendix B2). Thus, the relationships between different constructs can be analysed for further deductions.

The path coefficients tell us what happens in an endogenous latent variable when one of the antecedent latent variable increases by 1. In practice, they describe the causal relations between constructs. For example, one unit increase in Resource Pooling means 0,19 increase in pSNS Usage shown by the arrow in Figure 8. One can also see that Bridging Social capital seems to have a stronger effect on Resource Pooling, and indirectly to pSNS Usage (0,64\*0,19), than bonding social capital (0,25\*0,19). Bridging social capital also gains indirect power from its path via Social value, resulting in that both Bridging social capital (0,3) and Social value (0,37) constructs have a clear relationship with pSNS Usage. Still, only the Social value seems to have a strong causality on pSNS Usage, according to Cohen's (1988) scale. Table 9 summarises the findings on indirect paths.

Given that there was clear causality found between most of the predicting constructs and pSNS Usage, it tells the story of a complex topic caught by the research framework. A topic which is not necessary fully covered by previous theory. The fact that the model explains pSNS Usage variance well ( $R^2$  of 0,76), indicating substantial predictive accuracy (Sarstedt et al., 2017), yet the path coefficients remain on relatively equal levels, pinpoints this complexity. This means no single theoretical concept seems to explain pSNS usage on its own but requires reasoning in a more holistic way. Therefore, the framework itself seems to work as a system revealing a great deal of reasoning for pSNS Usage as a compound, which is perhaps the most important finding. The model supports this finding well, as only the Bonding social capital does not have a significant (indirect) effect on pSNS Usage at 5 % level though its p-value 0,08 suggests a moderate effect is possible. Its acceptability in the model is still questionable, as single item constructs might indicate lower predictability (Sarstedt et al. 2017). Nevertheless, it can be said that social capital is a major influencer of professional SNS continuance, particularly in its bridging form building on weak social ties.

Finally, the empirical tests show that individual perceived value seems to have a stronger impact on the continuous pSNS usage than professional perceived value. In terms of direct effects, the Social (0,37) and Emotional (0,32) value are the strongest, while both Functional and Resource Pooling remain below them, with direct effects of around 0,19. This also pinpoints the importance of hedonic value in driving professional SNS usage. Another interesting finding is that the context-related perceived value compare relatively high in effect to content related. Context-related constructs Conditional, Epistemic and Bridging social capital value all have positive relationship figures close to the Emotional value, with coefficients of 0,29, 0,27 and 0,30, respectively. While social and emotional constructs seem to drive continuous pSNS usage the most, it is rather surprising to see such low numbers for Functional value and Resource pooling considering the research context. The rationale behind these results is discussed next.

## **5** Discussion and Conclusions

This thesis arises from the need to better understand the reasons for recurrent usage of professional social network services (pSNSs). The main contribution of this paper is encapsulated in the theoretical framework built to describe how both the individual and professional perceived value affects the usage of professional SNS. Eight value dimensions are introduced and their effect on determining usage continuance is tested using PLS-SEM method. Results indicate a robust model which complements the previous research on SNS determinants.

This final and concluding section first critically discusses the research findings by reflecting them on previous literature and assessing the novelty value of this thesis. It then continues with the managerial and theoretical implications. The section will conclude with research limitations and suggestions for future research topics.

## 5.1 Discussion

The lack of research in the professionally focused SNS arm of the vast SNS and social media research is surprising, as several scholars have noted on differences between different SNS (e.g. Kietzmann et al. 2011). Therefore, it was assumed the determinants of using these professionally focused SNS might depart from those more focused on recreational usage. Popular examples of these SNSs are LinkedIn and Facebook. The key idea in structuring these SNSs is how the role of user identity differs. According to van Dijck (2013), the role of identity pertains to "professional self-promotion" in LinkedIn's case, whereas Facebook focuses more on "personal self-presentation". This professional identity was taken into account in conducting a proper theory behind the professional SNS usage determination.

Scholars tended to favour technology adoption models (TAMs) during the early years of SNS determinant research. Since then, several other frameworks have been adapted to explain why people are so tempted to continue to use SNSs. As technology related models were determined to lack many viewpoints important to SNS adoption and usage continuance, such as sociality and trust aspects, scholars have been adapting theories popular in social sciences and media and communications research. These models have often been built from multiple pieces of theory (Shaikh and Karjaluoto, 2015). Many of these studies have been focusing on usage as such, explained by concepts like "perceived ease of use" and "perceived usefulness" (H. Yang and Lin, 2014). Previous literature on SNS determinants has therefore resulted in various models without a clear thread to tie different dimensions of SNS drivers. A theoretical concept which could bundle different dimensions of determinants is required.

#### Novelty of the theoretical framework

It has been discussed how variegated the SNS usage determinant research is. However, less focus has been given to the concept of perceived value. The benefits of perceived value include that its roots are in consumption research (Sheth et al., 1991; Sweeney and Soutar, 2001) and that it is applicable in many contexts from mobile services (Pihlström, 2008) to willingness to pay for social media (Lu and Hsiao, 2010). There are also a few applications on using perceived value for explaining SNS continuance (Al-Debei et al., 2013; H. Yang and Lin, 2014), which have focused on Facebook and used only a limited set of perceived value dimensions. Hence, the previous literature has shown that the perceived value is suitable for different research contexts and can be utilised for wrapping multiple dimensions under one theoretical concept. This lays a solid foundation for building a parsimonious approach to expound continuous professional SNS usage.

Thus, the perceived value concept was chosen as the theoretical approach to determine why people continue to use professional SNS. This research was built around the questions of what kind of value drives the continuous usage of professional SNS, and what are these value drivers' relative effects on the outcome.

The framework was conducted by adopting several perceived value dimensions covering the multifaceted nature of professional SNS usage. Previous literature had introduced the hedonic-utilitarian value scale that has been adopted in various research settings, such as studying consumption. Seth et al. (1991) introduced a multidimensional approach that has since gained wide acceptance in studying different digital services. This five-dimensional model was utilised in explaining how the individual value determinants are dictated.

Moreover, the dimensions were arranged to context and content related, as suggested by Pihlström (2008). This split was done in able to describe a setting where the perceived value gained through different informational objects or content is reflected indirectly from different contextual circumstances, social ties and novelty value. For instance, a desire to change one's employer would represent the context, whereas the information on job openings would be the content. Simultaneously, this setting would be influenced by the social capital of that particular professional SNS user.

Consequently, the professional perceived value was similarly framed into context and

content related. Here the context spans from networking and the connections that a professional SNS facilitates. These networks enable certain content, such as particular information or professional advice. Here, the content is treated more instrumentally, as a resource rather than something intrinsically born, such as enjoyment. The context of networking was explained by applying Putnam's (2000) approach to interpreting social capital two-dimensionally as bonding and bridging, where the bridging social capital builds on Granovetter's (1977) weak social ties. The bridging social capital represents those connections in acquaintance level, whereas the bonding social capital describes closer connections possibly providing emotional support. Content related dimension was built around the perceived value of resource pooling (Hughes et al., 2007).

#### Results and reflections on previous research

The model was tested using PLS-SEM methodology. The research questions pertained which value determinants are affecting continuous professional SNS use and what are the relative strengths of those value determinants. All in all, the model framework was found fully functional and the roles of different perceived value dimensions could be evaluated despite a rather limited sample set. This indicates a robust research model. All but one of the thirteen hypotheses were supported by the model. Further, the indirect effects of all research constructs on the pSNS continuance were examined.

The results suggest professional SNS continuance (pSNS usage) can be explained by the following determinants. At the individual level, functional, emotional and social value are directly explaining the pSNS usage, and are enhanced by conditional and epistemic value. At the professional level, resource pooling was found to be a valid predictor and that it is similarly enhanced by social capital and its bridging form in particular. Statistical tests indicate the theoretical framework has predictive capability due to the high variance explained by the model for the outcome ( $R^2$ =0.76). In addition, the endogenous constructs of functional, emotional and social value, as well as resource pooling, show robust  $R^2$  levels in the social science scale. All variance explained figures are classified as strong, suggested by Cohen (1988). Therefore, it can be concluded that robust evidence for the first research question was found. The results thus indicate that a multidimensional perceived value model has a high predictive capability and can be used to explain professional SNS usage in a multifaceted way.

Previous literature of consumer choice behaviour has often highlighted the importance of utilitarian aspects such as usefulness or functional value in various consumption decision making contexts (Sheth et al., 1991; Sweeney and Soutar, 2001). In addition, hedonic aspects like enjoyment or entertainment have been key in determining the consumption drivers of both traditional and digital services (Sheth et al., 1991; Cheung and Lee, 2009; Jin et al., 2010).

This utilitarian-hedonic scale was found to be similarly relevant in this study of professional SNSs, as the emotional (H1) and functional (H2) perceived value was found to be influencing its usage. Similar findings have been found in equivalent studies of Facebook, where both emotional (K. Lin and Lu, 2011; H. Yang and Lin, 2014) and functional (Yin et al., 2011; K. Lin and Lu, 2011) dimensions have been determined to influence service commitment.

Emotional value seems to be a slightly stronger influencer of pSNS continuance compared with functional value. This makes sense since enjoyment might still drive the frequency and commitment while functional and informational dimensions could be more important to service adoption (Pihlström, 2008). On the other hand, despite the functional value and resource pooling (H10) had lower direct effects than the emotional value, the long-term commitment would probably be different without the existence of these determinants. This is highlighted by the fact that the usage of pSNS such as LinkedIn is mostly related to the professional life that often requires more instrumental than just pure convenience value.

For instance, LinkedIn users tend to ask for peer recommendations among their connections in different decision-making problems. Also, the previous research seems to support the moderate effect of informational value that the resource pooling construct represents (Cheung and Lee, 2009; Wei et al., 2015). In this study, the informational value is perhaps manifested differently due to different research concept used.

Resource pooling is essentially based on extrinsic motivations and referring to instrumental value aiming at "achieving a specific goal when performing an activity" (Wei et al., 2015, p. 154) rather than to a certain behaviour per se, as in the case of intrinsic value (Davis et al., 1992). Previous examinations suggested people are using LinkedIn for different motivations compared with for example Facebook; pSNS usage stresses identity and reputation as its structuring building blocks, and their form is practically more technical facts than notions gleaned from personal history. Facebook's reputation stems from different social groups or "likes" referring to personal factors whereas LinkedIn stresses skills and professional experience, which are more objectively understood and comparable.

One could, therefore, assume utilitarian dimensions to be more relevant to the continuous usage of pSNS than hedonic dimensions, on the contrary to what the findings of this study indicate. The professional content, such as information on business opportunities, should intuitively be a major determinant of user continuance of pSNSs. Nevertheless, earlier research in the case of Facebook have had contrasting findings on the relative roles of functional and emotional determinants if included in the same framework (K. Lin and Lu, 2011; Yin et al., 2011; X. Lin et al., 2017). Despite the hypotheses, this can also apply to professional SNS. The contradiction might emerge due to the varying effect of social value.

The perceived social value (H3) appeared to be the strongest of all eight value dimensions in driving the continuous use of pSNS. This parallels with previous findings of SNS and online community studies, which have included similar constructs including aspects like self-concept, community identification and reputation (Cheung and Lee, 2009; H. Yang and Lin, 2014; X. Lin et al., 2017). Social value as a key determinant is intuitive given the research target. Still, there might be differences in how various social value is weighted on different platforms.

Some scholars argue that Facebook's social value does not necessarily cause users to stick to the platform as users already have alternative ways to communicate with their SNS connections (H. Yang and Lin, 2014). Alternatively, the social value driving usage of an SNS might come from those connections the users have already established before joining the platform (K. Lin and Lu, 2011; H. Yang and Lin, 2014).

However, as the usage of professional SNS tends to differ from recreational SNS usage, the role of social value could be different too. For instance, Kietzmann et al. (2011) suggest the connections in LinkedIn tend to be more focused on acquaintances and less on strong social ties in contrast to Facebook. Scholars have ended up linking the social value aspects driving the recurrent usage of Facebook specifically to closer social ties (K. Lin and Lu, 2011; X. Lin et al., 2017). Therefore, recreational SNS use seems to be more determined by the bonding social capital. This study proposes the opposite in the case of professional SNS.

Previous literature has shown the positive relationship between social capital and SNS usage (Ellison et al., 2007; Yin et al., 2011). Further, social capital can be seen from different angles such as the one used in this study introduced by Putnam (2000), who distinguishes social capital between bridging and bonding. This study found no evidence on Bonding social capital as a determinant of continuous professional SNS usage, whereas the Bridging social capital indirectly affects it via other, content related, perceived value dimensions. Similar findings have been found in the Chinese SNS market (Chang and Zhu, 2012). This study demonstrates this verdict in a professional SNS context.

Both bonding (H12) and bridging (H11) social capital did have a significant effect on the resource pooling construct although the effect of the former was substantially lower. This finding could be explained by the fact that strong ties, that the bonding social capital is founded on, are generally formed of those connections established outside SNS environments, and therefore other means of connectivity exist. One of those platforms is Facebook, for instance.

The reasoning is thus similar to the perceived social value; professional SNS focus is on facilitating the connectivity of people who, by using the SNS, complement other business-related social contexts and therefore it is natural that these circumstances highlight the importance of Bridging social capital as a determinant. This does not rule out that LinkedIn wouldn't be used for contacting closer social ties for their available resources but rather the relative importance of what resources are available beyond strong social ties. The professional SNS continuance is thus effectively tied to platform connectivity features that boost both utilitarian and hedonic perceived value.

Furthermore, this research argues the context related perceived value dimensions significantly and positively affect the content related perceived value. More specifically, the epistemic perceived value positively drives all the content related perceived value dimensions (H4, H5, H6). The conditional perceived value positively affects emotional (H7) and functional (H8) perceived value, yet the effect on social value (H9) is rejected at the 5% significance level. This might be due to social value being a product of long-term phenomenon. The association with a social group or enhancement of social self-concept or wellbeing are not tied to time pressure or a sudden need for certain resources but generally tend to evolve in time. Similar findings have been made by Pihlström and Brush (2008) in a study of informational mobile services.

For emotional and functional value, the effect of conditional value resembles various cases where different resources such as new information are needed. Here, the information can bring emotional value in a form of interesting content, or lean toward functional value as a job announcement, respectively. These conditions can also appear as availability enabled by technology regardless of time and place (Al-Debei and Al-Lozi, 2014), further enhanced by the mobile user interface of an SNS. In addition, the effect of epistemic perceived value seems intuitive since novelty is a concept that easily applies to different forms of content related value. For instance, a connection changing positions might trigger both emotional (interest) and functional (opportunistic) receptors while affecting the user socially (empathy). However, this is a novel finding in SNS continuance research, since previous

findings have questioned the direct effect of epistemic value on Facebook stickiness (H. Yang and Lin, 2014). Epistemic value could also trigger negative value, such as jealousy, yet negative determinants are not in the theoretical scope of this thesis.

This aforementioned context-content logic holds also for the more instrumental perceived value apparent in the professional self's side; the weak ties in that the social capital is built on significantly affects how the content related value of resource pooling is determined. Especially the bridging social capital has major influence on how both resource pooling (H10) and social value (H13) affect the continuous use of professional SNS.

## Key findings

To conclude, all but one of the suggested value dimension effects on the continuous use of pSNS hypotheses were accepted in the empirical tests. First, the findings highlight the importance of hedonic perceived value, formed of social and emotional value, in driving pSNS continuance. Given the differences in SNS characteristics described earlier, the strength of social value can be explained by the professional identity building and sociality encouraging features that are both specifically boosted by the bridging social capital drawn from weak social ties. The significance of emotional value suggests enjoyment and a fun factor are not only essential for recreational SNS but remain of the essence in a professional usage context. In addition, the hedonic perceived value is further enhanced by the context related conditional and epistemic value dimensions meaning a moment, mobility and novelty are true indirect drives of the continuous professional SNS usage.

Second, social capital is a crucial determinant of pSNS usage in its bridging form. The resource pooling construct, representing the professionally relevant resources of the professional SNS, has a medium level effect on the service usage and is strongly enhanced by the bridging social capital. This, together with the importance of perceived social value, indicates that the professional SNS context results in a different outcome compared with recreational SNS research, which has stressed the importance of bonding social capital driving pSNS continuance. Third, the model did not support the effect of bonding social capital on continuous pSNS usage, despite accepting the twelfth hypothesis of a positive relationship between it and the resource pooling construct.

Thus, it can be argued that the determinants of professional SNS usage differ from recreational SNS usage in the relative effects of strong and weak social ties. Also, both the utilitarian and hedonic value seem to matter, yet the latter seems to have a stronger effect of the two which is parallel to the previous findings on SNS continuance.

# 5.2 Managerial and Theoretical Implications

#### Managerial implications

Former research has found SNSs provide opportunities in various ways for companies. The characteristics of SNSs dictate the areas firms have most to benefit from, such as sales, customer relationship management, advertising & PR and customer service (Culnan et al., 2010; Andzulis et al., 2012; Trainor et al., 2014). In the case of SNSs targeted at professional usage, these opportunities should apply but possibly with different relative emphasis. Professional SNS also includes an important aspect not often mentioned in the recreational SNS case, which is recruiting. For example, most of the companies are using LinkedIn as a key recruiting channel nowadays (Qualman, 2012). LinkedIn also has the potential for companies to improve their corporate image and to build stakeholder engagement by creating, sharing and publishing relevant content. In all of the abovementioned cases, it is important to understand what pushes audiences to continue with the service. Moreover, not only companies but managers and professionals can benefit from the deeper grasp of the usage determinants of these professional services.

One key learning of this study is that the hedonic perceived value is a major driver of continuous usage. Different pSNS actors should pay attention to the fact that users are not only using services like LinkedIn for fulfilling utilitarian needs, they use it also for entertainment purposes. For instance, users may use pSNSs for killing time but instead of browsing a recreational SNS option, might end up reading content which could have professional relevancy. The fact that over 90 % of survey respondents were using LinkedIn at least on a weekly basis tells a story of an engaging platform per se. These not only have practical implications in the way companies should be interacting with their stakeholders, what kind of content and which type of tone to use in their communication, but for the required speed of producing novel content. Firms should thus provide frequent content which would touch the key value dimensions of users indicated by this study. Additionally, one should realise the fact that a person's user roles parallel in using SNSs for professional purposes. Here, the professional and individual selves are cross-pressured, both requiring attention from the users interacting with them, as well as from the platform itself.

It was demonstrated that social and emotional value from using professional SNS are vital in the usage continuance. Both corporate and individual professional SNS users should make the most of providing various opportunities for other users for professional identity enhancement and self-branding in their content creation and overall community participation. In other words, by helping others shine should assist in carrying out greater awareness and engagement in the highly competed attention scope of the user base. This notion is especially important in marketing efforts and employer image building. Further, the strength of the context related perceived value shown in this study puts emphasis on tapping into what Google has called "micro-moments"<sup>21</sup>. Novelty combined with the right time and place is not only crucial in driving consumer advertising returns but create opportunities in the professional SNS context too. Companies continue investing in their social media operations and stuff to react changes in consumers' channel preferences. They should not forget the importance of professional digital channels in their decision making. This study demonstrates that users tend to have similar dynamics in the hedonic-utilitarian scale regardless of the SNS type.

Furthermore, as the perceived value can be seen as a mediator between loyalty, corporate image and service quality (Lai et al., 2009), SNS managers can deduct from what type of perceived value drives usage recurrence for what kind of features should be implemented for quality user experience, or alternatively, how to improve their corporate brand by resonating audiences with certain value elements. This similarly applies to different corporate users who participate in SNS activities. By leveraging the key value dimensions indicated by this study companies can thus focus on the fundamental levers of what makes users stick to the professional SNS platforms. This should further open up opportunities in building corporate image, reaching potential customers and employees, maintaining the current customer base and creating positive PR.

Practitioners should though be conservative when making managerial conclusions from this study. Although the theoretical base appears robust, the testing in practice was done in a limited geographical area, meaning the results do not necessarily apply in other markets. Another notion is that the pace of consumer behaviour in digital channel usage has been rapid during recent years, which challenges the topicality of the data set used.

#### Theoretical implications

This thesis makes several contributions to SNS and service consumption research. First, the study extends the current literature on SNS usage determinants to professional SNS context. Previous studies have almost exclusively focused on studying recreational SNS platforms,

<sup>&</sup>lt;sup>21</sup> Ramaswamy, S. (2015). How micro-moments are changing the rules. *Think with Google*. Available at: <u>http://think.storage.googleapis.com/docs/how-micromoments-are-changing-rules.pdf</u> [20.2.2019]

of which Facebook has been the most popular subject. The total number of people using professional SNS such as LinkedIn is extensive and outnumber popular recreational counterparts like Twitter and Snapchat<sup>22</sup>. The findings of this study further accentuate the importance to make a distinction between recreational and professional SNS in social media research. Scholars should acknowledge the key differences indicated by this thesis in the determinants of using an SNS, especially if they include aspects of personal social networks or social ties in their assumptions. Previous studies have not taken into account the key role of weak social ties in driving the usage continuance of an SNS in a professional context. Consequently, this study confirms the balance between social ties suggested by Granovetter's (1977) theory. Also, the marginal effect of the bonding social capital in driving professional SNS use seems to challenge what previous findings on Facebook has accounted (see Ellison et al., 2007). Moreover, the crucial role of hedonic value should be noticed if online professional networking services are on scholars' focus.

Second, this thesis brings new perspective to the application of the perceived value concept in studying behavioural intentions. One aspect is that it integrates different perceived value constructs into the social capital theory to form a framework of continuous SNS use with high predictive capability. Social capital seems to encapsulate how the professional networking decisively affects value creation in an SNS, similarly to what has been noted on knowledge sharing intentions in online communities (Hau and Kim, 2011; Hau et al., 2013). Social capital significantly explains the continuous usage of professional SNS both as such as via the value gained from the perceived social value and perceived value of resource pooling.

Another highlight is that the results show that using a context-content structuring for value dimensions successfully stretches to SNS context – a setting previously proved in studying mobile services (Pihlström, 2008). According to the findings, the role of contextual circumstances as an antecedent in SNS research is essential, since SNS usage has gone more and more mobile along with other Internet use. This "context-collapse" (Hogan, 2012) seems, in fact, more influential as a whole than the functional value per se. The part of the context is further verified by the effect of weak social ties explaining social and utilitarian value in terms of available resources. The study suggests that the network structure as the context and resources as content have an influencing role in value creation (Adler and Kwon,

<sup>&</sup>lt;sup>22</sup> Omnicore Agency, 2019. Available at: <u>https://www.omnicoreagency.com/linkedin-statistics/</u> <u>https://www.omnicoreagency.com/twitter-statistics/</u> [24.2.2019]

2002) in professional SNS circumstances. A user's social network structure thus represents the available human resources that have a major influence on how the more direct usage value is manifested.

Therefore, this thesis demonstrates the theoretical capability of the perceived value concept in determining a complex service consumption situation in an online professional networking context. Prior literature has used perceived value as a complementing single-construct or in constricted dimensions. A thorough set of value dimensions first introduced by Sheth et al. (1991) seems to fit this new research context and improve the variance explained in comparison with previous models of continuous SNS usage.

# 5.3 Research Limitations and Suggestions

Regardless of the valuable implications suggested in this thesis, there are some limitations in its coverage. First, despite the notable predictive power shown by the research model, one could complement it with some additional conceptualisations. Some researchers have incorporated the concept of trust into their framework either as an antecedent (Hau et al., 2013) or as a mediator (H. Yang and Lin, 2014). Trust is tightly related to reputation (Kietzmann et al., 2012), a key in structuring social connections and social value. However, trust to an SNS system is not only subject to other social media users but also to the systemic function of SNS which is basically just technical code and tremendous amounts of personal data. The latter is especially highlighted during the times of SNS security issues (e.g. case Cambridge Analytica) and in-platform systemic manipulations of the civil society (e.g. the U.S presidential elections in 2016). The first might merely disintegrate the user base while the other has larger, and perhaps more permanent, implications for both SNS's trust and, due to the rife following of these platforms, the world as we know it. Therefore, it would be interesting to see if incorporating trust or security would mediate the results.

The impact of mediators such as gender on SNS usage have had inconsistent results across studies depending on the framework applied (Ellison et al., 2007; K. Lin and Lu, 2011; Wei et al., 2015; X. Lin et al., 2017). The new context of professional SNS once more begs the question of gender's role. This research did not hypothesize for moderators due to the limited data sample. Professional related backgrounds such as work experience, manager position or industry could provide a new perspective to practice. The role of usage might also change the relative weights of usage determinants. For instance, mediating results with users' position might reveal if salespeople stressed different aspects of professional SNS

than marketing.

Second, some technical specifications should be taken into account. Although there were several indicators not included in the final measurement model, one must bear in mind that all the questionnaire items were adapted from previous research. Paradoxically, this was done to increase research validity. Applying research questions from different contexts to the given research topic is a common method in many disciplines, including the topic at issue. A new area such as professional SNS might require even more adapting in terms of spelling and word choice. Both the research context and semantics play a big part in creating robust representations of conceptual research constructs from previously validated questionnaire items. This was realised in the case of Bonding social capital studied as a single-item construct. The aim of the construct is to reflect the importance of close social ties. The remaining item was "There is someone on LinkedIn I can turn to for advice about making very important business decisions" which should well incorporate the key idea of bonding social capital.

Future research should pay attention to how the context of professional networking impacts theoretical assumptions and empirical testing. The value dimensions suggested by this study are subject to the trust of the SNS systems. Therefore, by providing perspective for the overall impact of trust and perceived security, SNS companies and researchers would ensure whether the recent hits on the reputation of social media have impacted the sphere of professional SNS. Moreover, the relevance of the data raises ideas for the future research agenda; it would be riveting to compare results from this thesis with more current data on LinkedIn usage. Considering the changes in social media usage behaviour during recent years, there might be novelty value in a longitudinal study. On the other hand, perceived value is a concept so profound that changes in behaviour per se would not necessarily have a large impact on the fundaments of professional SNS usage that this study has demonstrated. More evidence is needed to provide more concrete level determinants building on what this thesis proposes. Conclusively, due to the limited coverage of professional SNS in contrast to the vast amount of its recreational counterpart, more comparison between recreational and professional SNS is required to confirm if more differences appear beside the ones argued in this thesis.

This thesis has provided a multidimensional approach for determining what drives continuous professional SNS usage. It has been proven that both a person's individual and professional roles should be taken into account when studying the usage determinants of professional SNS usage. In addition, the perceived value driving professional SNS usage can be understood in a context-content scale. The findings were validated through eight theoretical constructs based on the perceived value of service consumption, the concept of resource pooling and social capital theory.

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# **Appendix A: Survey**

Value construct	Item	Question	Sources		
Functional value	Fun01	LinkedIn properly satisfies users' needs	·		
	Fun02	LinkedIn provides convenient functions			
	Fun03	The availability of LinkedIn is high	Kim et al. (2012), Wunsch-Vin		
	Fun04	LinkedIn provides ease of use	cent & Vickery (2007), Nov - (2007), Jensen et al. (2009),		
Emotional value	Emo01	I have fun using LinkedIn	(2007), Jensen et al. (2009), Ryu et al. (2009), Harrison (2010)		
	Emo02	I enjoy using LinkedIn	(2010)		
	Emo03	Using LinkedIn bores me (reversed)			
	Emo04	LinkedIn is interesting			
Social value	Soc01	Using LinkedIn helps me to feel accepted by others	Pura (2005), Soutar and Sweeney (2003), Sweeney and Soutar (2001)		
	Soc02	Using LinkedIn makes a good impression on other people			
	Soc03	The use of LinkedIn affects me socially	Kim et al. (2012), Nov (2007),		
Soc04		Using LinkedIn gives me social approval	Lai & Turban (2008), Bernoff		
Soc05	I feel at one with people who use LinkedIn	and Li (2008 ), Nov & Ye			
	Soc06	I become close to other people by using LinkedIn	(2009), Lindic (2009)		
	Soc07	LinkedIn encourages my social connec- tions			
Epistemic value	Epi01	I use LinkedIn to experiment with new ways of doing my work			
	Epi02	I use LinkedIn out of curiosity about the career moves of my connections			
	Epi03	I use LinkedIn to learn about new technolo- gies	Pura (2005), Donthu and Gar- cia (1999)		
	Epi04	I use LinkedIn because it allows me to fol- low discussions about some interesting top- ics			
	Epi05	I use LinkedIn out of curiosity about what my connections are doing			
Conditional value	Con01	I value the information LinkedIn offers, with the help of which I get what I need in a certain situation	Pihlström and Brush (2008)		
	Con04	I value the specific information related to my work that I get by using LinkedIn			
	Con02	I rely on LinkedIn when I have a specific information need	Developed for this study		
	Con06	I rely on LinkedIn when I'm looking for a new job	1		
	Con03	I value the information I can obtain from LinkedIn when I'm under time pressure	Pura and Gummerus (2005)		
	Con05	I value the information I can obtain from LinkedIn when I have to deal with a task	1 ura and Oummerus (2003)		

Table A1: Survey items and sources

		that requires information from a new area I'm not familiar with	
	Con07	I value the information I can obtain from LinkedIn to understand the impacts if there is a change in the business environment (e.g. Introduction of new technology)	
Continued Use	Use01	I intend to recommend my friends to use LinkedIn in the future	Lin and Lu (2011)
	Use02	LinkedIn is part of my everyday activity	
	Use03	I would be upset if LinkedIn shut down	
	Use04	All things considered, it is likely that I will continue to use LinkedIn	Limayem and Cheung (2011),
	Use05	LinkedIn has become part of my daily rou- tine	Bhattacherjee (2001)
~ ~ .	Use06	I am proud to tell people I am on LinkedIn	
Social Capi- tal - Bond- ing Subscale	ScBo01	The people I interact with on LinkedIn are the people I can rely on	
5	ScBo02	There is someone on LinkedIn I can turn to for advice about making very important busi- ness decisions	
	ScBo03	The people I interact with on LinkedIn would be good job references for me	
Social Capi- tal - Bridg- ing Subscale	ScBr01	On LinkedIn, I come in contact with new people all the time	Valenzuela et al. (2009)
0	ScBr02	I am willing to spend the time to support general LinkedIn activities	
	ScBr03	Interacting with people on LinkedIn reminds me that everyone in the world is connected	
	ScBr04	Interacting with people on LinkedIn gives me new business contacts	
	ScBr05	Interacting with people on LinkedIn makes me want to try new things at work	
Resource pooling	Res01	Inputs brought by participants in LinkedIn are valuable to each other	
	Res02	LinkedIn allows me to access a pool of in- puts quickly and timely	
	Res03	LinkedIn affords me access to inputs at more competitive terms than was I not a member	Adapted from Hughes et al.
	Res04	Participants in LinkedIn share a level of mu- tual dependence to achieve stronger perfor- mance at work	(2007)
	Res05	Participants in LinkedIn provide vital inputs that I find difficult to find elsewhere	
	Res06	Accessing the inputs of participants in LinkedIn is important for my performance	

Value construct	Article
Continued Use	Lin and Lu (2011) <i>Why people use social networking sites: An empirical study integrating network externalities and motivation theory</i> , Computers in human behaviour, Vol. 27, No. 3, pp. 152-1161.
Continued Use	Limayem & Cheung (2011) <i>Predicting the continued use of Internet-based learn-ing technologies: the role of habit</i> , Behaviour & Information Technology, Vol. 30 No. 1, pp. 1-99.
Continued Use	Bhattacherjee (2001) Understanding information systems continuance: an expecta tion-confirmation model, MIS quarterly, Vol.25, No. 3, pp. 351-370
Continued Use	Hsu et al. (2004) <i>Predicting electronic service continuance with a decomposed the ory of planned behaviour</i> , Behaviour & Information Technology, Vol. 23, No. 5, pp. 59-373.
Continued Use	Cheung et al. (2013) Understanding the continuance intention of knowledge shar- ing in online communities of practice through the post-knowledge-sharing evalua- tion processes, Journal of the American Society for Information Science and Tech- nology, Vol. 64, No. 7, pp. 357-1374.
Functional	Kim et al. (2012) User perception of the quality, value, and utility of user-gener- ated content, Journal of Electronic Commerce Research, Vol. 13, No. 4, pp. 305- 319.
Functional	Wunsch-Vincent & Vickery (2007) <i>Participative web and user-created content:</i> <i>Web 2.0 wikis and social networking</i> , Organization for Economic Cooperation and Development (OECD)
Functional	Nov (2007) <i>What Motives Wikipedians</i> , Communications of the ACM, Vol. 50, No. 11, pp. 60-64.
Functional	Jensen et al. (2009) User-Generated Content: The Case for Mobile Services, Computer, Vol. 41, No. 1, pp. 116-118.
Functional	Ryu et al. (2009) Understanding the factors affecting online elderly user's partici- pation in video UCC services, Computers in Human Behavior, Vol. 25, No. 3, pp. 619-632.
Functional	Harrison (2010) User-generated content and gatekeeping at the BBC hub, Journal ism studies, Vol. 11, No. 2, pp. 243-256.
Social	Pura, M. (2005) <i>Linking perceived value and loyalty in location-based mobile ser-</i> <i>vices</i> , Managing Service Quality: An International Journal, Vol. 15, No. 6, pp. 509 538.
Social	Soutar and Sweeney (2003) Are there cognitive dissonance segments?, Australian Journal of Management, Vol. 28, No. 3, pp. 227-249.
Social	Sweeney and Soutar (2001) Consumer perceived value: The development of a mul tiple item scale, Journal of retailing, Vol. 77, No. 2, pp. 203-220.
Social	Kim et al. (2012) User perception of the quality, value, and utility of user-generated content, Journal of Electronic Commerce Research, Vol. 13, No. 4, pp. 305.
Social	Nov (2007) <i>What Motives Wikipedians</i> , Communications of the ACM, Vol. 50, No. 11, pp. 60-64.
Social	Lai & Turban (2008) <i>Groups formation and operations in the Web 2.0 environ-</i> <i>ment and social networks</i> , Group Decision and negotiation, Vol. 17, No. 5, pp. 387-402.
Social	Bernoff & Li (2008) <i>Harnessing the power of the oh-so-social web</i> , MIT Sloan management review, Vol. 49, No. 3, pp. 36
Social	Nov & Ye (2009) <i>Why Do People Share Photos Online?</i> AMCIS 2009 Proceedings, p. 573
Social	Lindic (2009) The triangle of content success: building the perfect combination of editorial and user content, infused with the intelligence of social connections,

Table A2: List of survey item references

	Econtent, Vol. 32, No. 4, pp. 36-40
Emotional	Pura, M. (2005) <i>Linking perceived value and loyalty in location-based mobile ser-</i> <i>vices</i> , Managing Service Quality: An International Journal, Vol. 15, No. 6, pp. 509- 538.
Emotional	Soutar and Sweeney (2003) Are there cognitive dissonance segments?, Australian Journal of Management, Vol. 28, No. 3, pp. 227-249.
Emotional	Sweeney and Soutar (2001) Consumer perceived value: The development of a mul- tiple item scale, Journal of retailing, Vol. 77, No. 2, pp. 203-220.
Emotional	Kim et al. (2012) <i>User perception of the quality, value and utility of user-gener-</i> <i>ated content</i> , Journal of Electronic Commerce Research, Vol. 13, No. 4, pp. 305- 319.
Emotional	Wunsch-Vincent & Vickery (2007) <i>Participative Web: User-Created Content,</i> Organization for Economic Cooperation and Development (OECD)
Emotional	Ryu et al. (2009) Understanding the factors affecting online elderly user's partici- pation in video UCC services, Computers in Human Behavior, Vol. 25, No. 3, pp. 619-632.
Emotional	Karahasanovic et al. (2009) <i>Co-creation and user-generated content–elderly peo-</i> <i>ple's user requirements</i> , Computers in Human Behavior, Vol. 25, No. 3, pp. 655- 678.
Emotional	Papathanassis & Knolle (2011) <i>Exploring the adoption and processing of online holiday reviews: A grounded theory approach</i> , Tourism Management, Vol. 32, No. 2, pp. 215-224.
Emotional	Kuan-Yu Lin and Hsi-Peng Lu (2011) <i>Why people use social networking sites: An empirical study integrating network externalities and motivation theory</i> , Computers in human behavior, Vol. 27, No. 3, pp. 1152-1161.
Epistemic	Pura, M. (2005) <i>Linking perceived value and loyalty in location-based mobile ser-</i> <i>vices</i> , Managing Service Quality: An International Journal, Vol. 15, No. 6, pp. 509- 538.
Epistemic	Donthu and Garcia (1999) <i>The internet shopper</i> , Journal of advertising research, Vol. 39, No. 3, pp. 52-52.
Conditional	Pihlström and Brush (2008) <i>Comparing the perceived value of information and en-</i> <i>tertainment mobile services</i> , Psychology & Marketing, Vol. 25, No. 8, pp. 732-755.
Conditional	Pura and Gummerus (2007) <i>Discovering perceived value of mobile services</i> , Hanken School of Economics: Working Papers 523
Social Capital: Bonding Sub- scale	Valenzuela et al. (2009) <i>Is There Social Capital in a Social Network Site?: Face-</i> <i>book Use and College Students' Life Satisfaction, Trust, and Participation</i> , Journal of computer-mediated communication, Vol. 14, No. 4, pp. 875-901.
Social Capital: Bridging Sub- scale	Valenzuela et al. (2009) <i>Is There Social Capital in a Social Network Site?: Face-</i> <i>book Use and College Students' Life Satisfaction, Trust, and Participation, Journal</i> of computer-mediated communication, Vol. 14, No. 4, pp. 875-901.
Resource Pool- ing:	Hughes et al. (2007) <i>Stimulating Dynamic Value: Social Capital and Business In-</i> <i>cubation as a Pathway to Competitive Success</i> , Long Range Planning, Vol. 40, No. 2, pp. 154-177.
Knowledge sharing	Hau et al. (2013) <i>The effects of individual motivations and social capital on employees' tacit and explicit knowledge sharing intentions</i> , International Journal of Information Management, Vol. 33, No. 2, pp. 356-366.
Knowledge sharing	Utz (2016) Is LinkedIn making you more successful? The informational benefits derived from public social media, New Media & Society, Vol. 18, No. 11, pp. 2685-2702.

# Appendix B: PLS-SEM output

	Condi-	Emo-	Epis-	Func-	Re- source	SC- Bond-	SC- Bridg-	Social	pSNS
	tional	tional	temic	tional	Pool- ing	ing	ing	Social	usage
Con01	0,69	0,60	0,42	0,64	0,39	0,28	0,42	0,45	0,62
Con02	0,77	0,50	0,52	0,43	0,55	0,42	0,52	0,46	0,59
Con03	0,78	0,43	0,49	0,43	0,49	0,48	0,52	0,35	0,46
Con04	0,71	0,42	0,51	0,38	0,63	0,65	0,59	0,50	0,52
Con05	0,81	0,59	0,64	0,41	0,74	0,55	0,71	0,52	0,63
Con06	0,55	0,42	0,44	0,27	0,44	0,35	0,48	0,52	0,53
Con07	0,81	0,57	0,56	0,41	0,64	0,55	0,67	0,54	0,64
Emo01	0,57	0,86	0,68	0,54	0,58	0,39	0,55	0,46	0,70
Emo02	0,68	0,92	0,72	0,72	0,62	0,48	0,60	0,56	0,82
Emo03	0,44	0,78	0,55	0,55	0,40	0,39	0,44	0,38	0,60
Emo05	0,69	0,87	0,66	0,71	0,60	0,54	0,62	0,59	0,79
Epi01	0,50	0,52	0,62	0,25	0,55	0,33	0,60	0,45	0,53
Epi02	0,30	0,55	0,70	0,46	0,30	0,25	0,32	0,41	0,47
Epi03	0,64	0,56	0,73	0,35	0,52	0,51	0,59	0,45	0,59
Epi04	0,64	0,54	0,70	0,35	0,67	0,48	0,68	0,58	0,58
Epi05	0,28	0,42	0,67	0,33	0,24	0,18	0,33	0,43	0,37
Fun01	0,52	0,53	0,36	0,76	0,33	0,28	0,33	0,31	0,50
Fun02	0,61	0,72	0,55	0,86	0,54	0,44	0,49	0,45	0,62
Fun03	0,27	0,42	0,27	0,79	0,20	0,38	0,23	0,29	0,41
Fun04	0,35	0,59	0,34	0,73	0,25	0,30	0,31	0,39	0,43
Res01	0,67	0,58	0,58	0,42	0,80	0,59	0,71	0,65	0,65
Res02	0,79	0,63	0,65	0,46	0,86	0,62	0,76	0,59	0,68
Res03	0,48	0,52	0,54	0,41	0,76	0,35	0,61	0,56	0,56
Res04	0,52	0,44	0,45	0,34	0,78	0,60	0,68	0,52	0,51
Res05	0,63	0,54	0,53	0,33	0,85	0,58	0,75	0,61	0,60
Res06	0,61	0,47	0,57	0,29	0,88	0,53	0,70	0,56	0,56
ScBo01	0,34	0,34	0,28	0,36	0,41	0,74	0,39	0,16	0,30
ScBo03	0,61	0,49	0,56	0,30	0,65	0,87	0,65	0,39	0,53
ScBo04	0,41	0,32	0,23	0,40	0,35	0,58	0,40	0,33	0,36
ScBr01	0,43	0,46	0,49	0,42	0,49	0,43	0,58	0,40	0,48
ScBr02	0,66	0,55	0,61	0,34	0,67	0,66	0,81	0,51	0,61
ScBr03	0,56	0,40	0,46	0,29	0,63	0,55	0,72	0,56	0,48
ScBr04	0,55	0,55	0,62	0,44	0,66	0,46	0,80	0,69	0,67
ScBr05	0,58	0,44	0,55	0,22	0,67	0,39	0,77	0,47	0,52
Soc01	0,24	0,24	0,40	0,12	0,27	0,10	0,33	0,67	0,30
Soc02	0,53	0,37	0,38	0,37	0,48	0,31	0,44	0,70	0,52
Soc03	0,40	0,38	0,43	0,32	0,54	0,28	0,57	0,74	0,54
Soc04	0,51	0,30	0,44	0,29	0,53	0,23	0,47	0,77	0,47

Table B1: PLS-SEM modelling output; initial model Cross loadings

Soc05	0,68	0,60	0,60	0,46	0,63	0,39	0,64	0,76	0,65
Soc06	0,46	0,45	0,56	0,31	0,52	0,44	0,52	0,67	0,50
Soc07	0,40	0,51	0,58	0,40	0,53	0,23	0,58	0,76	0,58
Use02	0,59	0,63	0,54	0,49	0,62	0,39	0,64	0,57	0,78
Use03	0,68	0,70	0,62	0,47	0,62	0,51	0,62	0,50	0,86
Use04	0,59	0,56	0,53	0,48	0,49	0,20	0,46	0,57	0,70
Use05	0,53	0,68	0,50	0,67	0,42	0,36	0,45	0,54	0,72
Use06	0,62	0,72	0,62	0,44	0,58	0,56	0,62	0,51	0,84
Use07	0,64	0,65	0,66	0,44	0,62	0,50	0,68	0,66	0,75

Table B2: PLS-SEM modelling output; total, total indirect and indirect effects

**Total Effects** 

Mean, STDEV, T-Values, P-Val-

ues

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Val- ues
Conditional -> Emotional	0,44	0,44	0,09	4,81	0,00
Conditional -> Functional	0,41	0,42	0,09	4,41	0,00
Conditional -> Social	0,20	0,20	0,12	1,65	0,05
Conditional -> pSNS usage	0,29	0,30	0,08	3,83	0,00
Emotional -> pSNS usage	0,32	0,32	0,09	3,69	0,00
Epistemic -> Emotional	0,38	0,38	0,10	3,72	0,00
Epistemic -> Functional	0,34	0,34	0,11	2,93	0,00
Epistemic -> Social	0,24	0,24	0,11	2,24	0,01
Epistemic -> pSNS usage	0,27	0,27	0,07	3,84	0,00
Functional -> pSNS usage	0,19	0,19	0,09	2,09	0,02
ResourcePooling -> pSNS usage	0,19	0,19	0,10	1,86	0,03
SC-Bonding -> ResourcePooling	0,25	0,24	0,10	2,47	0,01
SC-Bonding -> pSNS usage	0,05	0,05	0,03	1,43	0,08
SC-Bridging -> ResourcePooling	0,64	0,65	0,09	7,25	0,00
SC-Bridging -> Social	0,47	0,48	0,12	3,85	0,00
SC-Bridging -> pSNS usage	0,30	0,30	0,07	4,21	0,00
Social -> pSNS usage	0,37	0,37	0,09	4,14	0,00

#### Confidence Intervals Bias Cor-

rected

	Original Sample (O)	Sample Mean (M)	Bias	5.0%	95.0%
Conditional -> Emotional	0,44	0,44	0,00	0,28	0,59
Conditional -> Functional	0,41	0,42	0,01	0,23	0,54
Conditional -> Social	0,20	0,20	0,00	0,00	0,40
Conditional -> pSNS usage	0,29	0,30	0,01	0,18	0,42
Emotional -> pSNS usage	0,32	0,32	0,00	0,18	0,46
Epistemic -> Emotional	0,38	0,38	0,01	0,20	0,53
Epistemic -> Functional	0,34	0,34	0,00	0,14	0,51
Epistemic -> Social	0,24	0,24	0,00	0,06	0,40
Epistemic -> pSNS usage	0,27	0,27	0,00	0,15	0,38

Functional -> pSNS usage	0,19	0,19	0,00	0,02	0,32
ResourcePooling -> pSNS usage	0,19	0,19	-0,01	0,03	0,36
SC-Bonding -> ResourcePooling	0,25	0,24	-0,01	0,08	0,41
SC-Bonding -> pSNS usage	0,05	0,05	0,00	0,01	0,13
SC-Bridging -> ResourcePooling	0,64	0,65	0,01	0,46	0,76
SC-Bridging -> Social	0,47	0,48	0,01	0,24	0,65
SC-Bridging -> pSNS usage	0,30	0,30	0,00	0,18	0,41
Social -> pSNS usage	0,37	0,37	0,00	0,21	0,51

### **Total Indirect Effects**

# Mean, STDEV, T-Values, P-Val-

ues

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Val- ues
Conditional -> Emotional	0,00	0,00	0,00	0,00	0,00
Conditional -> Functional	0,00	0,00	0,00	0,00	0,00
Conditional -> Social	0,00	0,00	0,00	0,00	0,00
Conditional -> pSNS usage	0,29	0,30	0,08	3,83	0,00
Emotional -> pSNS usage	0,00	0,00	0,00	0,00	0,00
Epistemic -> Emotional	0,00	0,00	0,00	0,00	0,00
Epistemic -> Functional	0,00	0,00	0,00	0,00	0,00
Epistemic -> Social	0,00	0,00	0,00	0,00	0,00
Epistemic -> pSNS usage	0,27	0,27	0,07	3,84	0,00
Functional -> pSNS usage	0,00	0,00	0,00	0,00	0,00
ResourcePooling -> pSNS usage	0,00	0,00	0,00	0,00	0,00
SC-Bonding -> ResourcePooling	0,00	0,00	0,00	0,00	0,00
SC-Bonding -> pSNS usage	0,05	0,05	0,03	1,43	0,08
SC-Bridging -> ResourcePooling	0,00	0,00	0,00	0,00	0,00
SC-Bridging -> Social	0,00	0,00	0,00	0,00	0,00
SC-Bridging -> pSNS usage	0,30	0,30	0,07	4,21	0,00
Social -> pSNS usage	0,00	0,00	0,00	0,00	0,00

## Confidence Intervals Bias Corrected

	Original Sample	Sample Mean	Bias	5.0%	95.0%
	(0)	(M)			
Conditional -> Emotional	0,00	0,00	0,00	0,00	0,00
Conditional -> Functional	0,00	0,00	0,00	0,00	0,00
Conditional -> Social	0,00	0,00	0,00	0,00	0,00
Conditional -> pSNS usage	0,29	0,30	0,01	0,18	0,42
Emotional -> pSNS usage	0,00	0,00	0,00	0,00	0,00
Epistemic -> Emotional	0,00	0,00	0,00	0,00	0,00
Epistemic -> Functional	0,00	0,00	0,00	0,00	0,00
Epistemic -> Social	0,00	0,00	0,00	0,00	0,00
Epistemic -> pSNS usage	0,27	0,27	0,00	0,15	0,38
Functional -> pSNS usage	0,00	0,00	0,00	0,00	0,00
ResourcePooling -> pSNS usage	0,00	0,00	0,00	0,00	0,00
SC-Bonding -> ResourcePooling	0,00	0,00	0,00	0,00	0,00
SC-Bonding -> pSNS usage	0,05	0,05	0,00	0,01	0,13
SC-Bridging -> ResourcePooling	0,00	0,00	0,00	0,00	0,00
SC-Bridging -> Social	0,00	0,00	0,00	0,00	0,00
SC-Bridging -> pSNS usage	0,30	0,30	0,00	0,18	0,41
Social -> pSNS usage	0,00	0,00	0,00	0,00	0,00

### **Specific Indirect Effects**

. Mean, STDEV, T-Values, P-Val-

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Val- ues
Conditional -> Emotional -> pSNS usage	0,14	0,14	0,05	2,68	0,00
Epistemic -> Emotional -> pSNS usage	0,12	0,12	0,04	2,72	0,00
Conditional -> Functional -> pSNS usage	0,08	0,08	0,04	1,85	0,03
Epistemic -> Functional -> pSNS usage	0,06	0,06	0,04	1,54	0,06
SC-Bonding -> ResourcePooling -> pSNS usage	0,05	0,05	0,03	1,43	0,08
SC-Bridging -> ResourcePooling -> pSNS usage	0,12	0,12	0,07	1,75	0,04
Conditional -> Social -> pSNS us- age	0,07	0,07	0,05	1,43	0,08
Epistemic -> Social -> pSNS usage	0,09	0,09	0,04	2,00	0,02
SC-Bridging -> Social -> pSNS us- age	0,17	0,18	0,06	2,86	0,00

### Confidence Intervals Bias Cor-

	Original Sample (O)	Sample Mean (M)	Bias	5.0%	95.0%
Conditional -> Emotional -> pSNS usage	0,14	0,14	0,00	0,07	0,24
Epistemic -> Emotional -> pSNS usage	0,12	0,12	0,00	0,05	0,20
Conditional -> Functional -> pSNS usage	0,08	0,08	0,00	0,01	0,14
Epistemic -> Functional -> pSNS usage	0,06	0,06	0,00	0,01	0,15
SC-Bonding -> ResourcePooling -> pSNS usage	0,05	0,05	0,00	0,01	0,13
SC-Bridging -> ResourcePooling -> pSNS usage	0,12	0,12	0,00	0,02	0,25
Conditional -> Social -> pSNS us- age	0,07	0,07	0,00	0,01	0,18
Epistemic -> Social -> pSNS usage	0,09	0,09	0,00	0,03	0,17
SC-Bridging -> Social -> pSNS us- age	0,17	0,18	0,00	0,08	0,28

### Table B3: PLS-SEM modelling output; model quality criteria

#### R Square Mean, STDEV, T-Values, P-Values

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV  )	P Values
Emotional	0,43	0,45	0,08	5,39	0,00
Functional	0,35	0,38	0,09	4,09	0,00
ResourcePooling	0,66	0,68	0,06	10,47	0,00
Social	0,54	0,57	0,07	7,27	0,00
pSNS usage	0,76	0,77	0,05	14,25	0,00

#### Average Variance Extracted (AVE) *Mean, STDEV, T-Values, P-*

Values

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV  )	P Values
Conditional	0,69	0,69	0,05	14,75	0,00
Emotional	0,77	0,76	0,06	13,89	0,00
Epistemic	0,85	0,84	0,04	19,88	0,00
Functional	0,62	0,62	0,06	10,40	0,00
ResourcePooling	0,68	0,68	0,04	16,14	0,00
SC-Bonding*	1,00	1,00	0,00	0,00	0,00
SC-Bridging	0,69	0,68	0,06	11,97	0,00
Social	0,58	0,58	0,05	11,11	0,00
pSNS usage	0,63	0,63	0,05	13,66	0,00

\* Single item scale

#### **Composite Reliability**

Mean, STDEV, T-Values, P-

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV  )	P Values
Conditional	0,90	0,90	0,02	43,89	0,00
Emotional	0,87	0,86	0,04	23,64	0,00
Epistemic	0,92	0,91	0,03	34,03	0,00
Functional	0,87	0,86	0,03	27,42	0,00
ResourcePooling	0,91	0,91	0,02	58,18	0,00
SC-Bonding*	1,00	1,00	0,00	0,00	0,00
SC-Bridging	0,87	0,86	0,03	26,74	0,00
Social	0,87	0,87	0,02	35,06	0,00
pSNS usage	0,87	0,87	0,02	38,29	0,00

\* Single item scale

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV  )	P Values
Conditional	0,86	0,86	0,03	27,46	0,00
Emotional	0,71	0,71	0,10	7,07	0,00
Epistemic	0,86	0,89	0,26	3,28	0,00
Functional	0,82	0,83	0,05	15,98	0,00
ResourcePooling	0,89	0,89	0,02	40,80	0,00
SC-Bonding*	1,00	1,00	0,00	0,00	0,00
SC-Bridging	0,78	0,78	0,06	13,60	0,00
Social	0,83	0,83	0,04	22,03	0,00
pSNS usage	0,81	0,81	0,04	21,03	0,00

rho_A	
Mean, STDEV,	T-Values, P-
Values	

\* Single item scale

### Cronbach's Alpha Mean, STDEV, T-Values, P-

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV  )	P Values
Conditional	0,85	0,85	0,03	25,55	0,00
Emotional	0,70	0,69	0,10	7,21	0,00
Epistemic	0,82	0,82	0,05	15,21	0,00
Functional	0,80	0,79	0,05	15,28	0,00
ResourcePooling	0,88	0,88	0,02	37,02	0,00
SC-Bonding*	1,00	1,00	0,00	0,00	0,00
SC-Bridging	0,77	0,76	0,07	11,84	0,00
Social	0,82	0,82	0,04	20,50	0,00
pSNS usage	0,81	0,80	0,04	19,80	0,00

\* Single item scale

#### Construct Crossvalidated Re-

dundancy

	SSO	SSE	Q² (=1- SSE/SSO)
Conditional	256,00	256,00	0,00
Emotional	128,00	90,36	0,29
Epistemic	128,00	128,00	0,00
Functional	256,00	210,55	0,18
ResourcePooling	320,00	187,80	0,41
SC-Bonding	64,00	64,00	0,00
SC-Bridging	192,00	192,00	0,00
Social	320,00	231,67	0,28
pSNS usage	320,00	182,87	0,43

# Table B4: PLS-SEM modelling output; base data settings

## Base Data specifications

Data file Settings	
Data file	SNS-usage_Data [64 records]
Missing value marker	none
Data Setup Settings	
Algorithm to handle missing data	None
Weighting Vector	-
PLS Algorithm Settings	
Data metric	Mean 0, Var 1
Initial Weights	1.0
Max. number of iterations	300
Stop criterion	7
Use Lohmoeller settings?	No
Weighting scheme	Path
Bootstrapping Settings	
Complexity	Complete Bootstrapping
Confidence interval method	Bias-Corrected and Accelerated (BCa) Bootstrap
Parallel processing	Yes
Samples	5000
Sign changes	No Sign Changes
Significance level	0.05
Test type	One Tailed
Construct Outer Weighting Mode Settings	
Conditional	Automatic
Emotional	Automatic
Epistemic	Automatic
Functional	Automatic
ResourcePooling	Automatic
SC-Bonding	Automatic
SC-Bridging	Automatic
Social	Automatic
pSNS usage	Automatic