

Social Networking Business Continuum: Customer Information Drivers Meet Technology Enablers

¹ Chon Abraham (corresponding author), ² Changsu Kim
³ Yang Lee, ⁴ Stuart E. Madnick

¹ Associate Professor, College William of Mary, Stadium Dr, Williamsburg, United States

² Professor, Youngman University, Daehak-ro, Gyeongsan-si, Gyeongsangbuk-do, South Korea

³ Associate Professor, Northeastern University, Huntington Ave, Boston, United States

⁴ Professor, Sloan School of Management, MIT, Memorial Dr, Cambridge, United States

¹ chon.abraham@mason.wm.edu, ² c.kim@ynu.ac.kr,

³ y.lee@neu.edu, ⁴ smadnick@mit.edu

ABSTRACT

Most previous studies regarding overviews of social network business (SNB) in eCommerce research have paid little attention to the SNB typology and associated continuum that differentiates capabilities. This has produced a lack of insight on identifying and classifying SNBs in a way that adjusts and adapts to changes in the business environment. This study proposes a typology for classification of the SNB, and analyzes its characteristics with selected cases to demonstrate a continuum. The SNBs described as basic evolving, advanced evolving, basic innovating, and advanced innovating. This study provides a theoretical background for future SNB studies, and valuable insight into practical applications in the ever-growing SNB stream of eCommerce.

Keywords: *eCommerce, social network business, drives continuum, taxonomy*

1. INTRODUCTION

In the world of eCommerce, social networking businesses (SNBs) are unique to traditional businesses in that the focus of the business is to mediate transactions and communication between people most often as seamlessly as possible and in a commercially driven state, via a media that transcends space, time, and technological form factor, known as u-commerce [1]. People generate content and even the scope of transactions, via the SNB's facilitated mechanism. SNB functions can extend the core business of a traditional brick and mortar firm; exist as a purely virtual entity, or some hybrid of the two. The ability of SNB to meet the needs of its intended customers depends on its capability to extend its reach to customers via various channels, and provide richness in the form of an attractive offering to customer [2,3] Therefore, the SNB characteristics need to parallel the needs or drives of the customers. We explore this phenomenon by defining characteristics of SNBs and the psychological mechanisms of customers to discern a typology for types of SNBs, and we describes how SNBs can transition from merely *emerging/evolving* as a status quo type of offering, to becoming an *innovator* of new social network experiences that generate commerce. This continuum explicates the customer drives and the u-commerce nature of SNBs to provide insight about where SNBs fit in a continuum of service offerings more definitively, by realizing motivations of customers and how to situate the SNB. The continuum also provides a means for categorizing SNBs for research purposes.

Social networking businesses (SNBs) are wildly popular businesses; these have attracted millions of users, many of whom have integrated these sites into their daily practices [4]. SNBs have expanded to provide business and services to their users all over the world [5]. SNBs also provide their users with a new way to express

themselves, share information, connect with friends, and meet new people [6].

SNB is a subset of online businesses using social media technologies and provides new avenues for executing sales, marketing, recruitment, and technical support, which supplement traditional working practices [7]. In line with this, organizations are actively seeking the best way to find new opportunities of SNB [7].

Recently, SNB has become an emerging and fast-growing trend, where the area of SNB has been expanded to include the full range of social media tools and content employed in the context of online business [6]. Examples of SNB tools include customer ratings and reviews, user recommendations and referrals, social shopping tools, forums and communities, social media optimization, social applications, and social advertising [5, 8].

For example, specialized social networking businesses, such as Library thing, support book collections for users. Library thing has amassed a huge quantity of book data, and leverages that data to provide recommendations based on the number of people who have books in common, and on the tags used to describe those books. LinkedIn is a business-oriented social networking site which is used principally for professional networking [8]. This website allows its registered users to maintain a list (connection) of contact details of people they know and trust in business [9]. LinkedIn also allows its users to research companies with which they may be interested in working [9]. The site also features LinkedIn Answers, which is similar to Yahoo! Answers, in that it allows users to ask questions for the community to answer. Another feature of the site is LinkedIn Groups, which allows users to establish new business relationships

<http://www.cisjournal.org>

by joining alumni, industry, or professional and other relevant groups [6].

Since SNBs are in the early stage in the field of information system research, there is still lack of study that systematically considered taxonomy underlying SNB characteristics [10]. Regarding the pioneering nature of this research on the SNB model, the objectives of this study are to develop a classification model for SNB, to analyze its characteristics, and to present the implications for characterizing SNBs.

Our paper is structured as follows: an overview of social network sites and SNBs is provided in Section 2, a framework for characterizing SNBs in Section 3, in section 4 we provided a SNB continuum based on framing in Section 2, Section 5 provides a case analysis applying the SNB continuum, Section 6 then provides a profile for the SNBs along the continuum, and Section 7 discusses implication and concludes the paper.

2. SOCIAL NETWORKING SITES

Social networking sites can be defined as individual websites which enable online human relationship building by collecting useful information and sharing information with others [3]. Moreover, social networking sites can be defined as web-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view and traverse their list of connections and those made by others within the system [4]. Social networking sites not only allow individuals to meet strangers, but also enable users to articulate and make visible their social networks. On many of the large social networking sites, participants of the large social networking sites are not necessarily seeking to meet new people; rather, they are primarily communicating with people who are already part of their extended social network. Facebook and Twitter are well-known social networking sites that are in wide use worldwide, whereas MySpace and LinkedIn are most widely used in North America; Decayenne, Tagged, XING, Badoo, and Skyrock are mostly used in parts of Europe, in addition to Friendster, Mixi, Multiply, Orkut, Wretch, renren (in China), and Cyworld (in Korea) in Asia.

Social networking sites are a relatively new, and now wildly popular, form of technology; these websites have attracted millions of users, many of whom have integrated these sites into their daily practices [4]. Social networking sites have expanded to provide services to these users all over the world. There are hundreds of social networking sites, with various technological appurtenances, supporting a broad range of interests and practices [9]. Most sites support the maintenance of preexisting social networks, and also help strangers connect on the basis of shared interests, political views, or activities [4]. Some social networking sites cater to diverse audiences, whereas others sites attract people based on common language or shared racial, sexual,

religious, or national identities. The social networking sites also vary in the extent to which they incorporate new information and communication tools, such as mobile connectivity, blogging, and photo/video-sharing. In summary, social networking sites can be oriented toward work-oriented contexts (e.g. LinkedIn.com), the initiation of romantic relationships (e.g. Friendster.com, Facebook.com) and connecting other users with shared interests like music or politics (e.g. MySpace.com).

Social networking sites represent relationships between individuals and groups in a community, and are more commonly used for fun and entertainment than for productivity gains [11]. General social networking sites such as Facebook, Myspace, Twitter, Friendster, and Cyworld are designed to function as a meeting platform that allows their users to join or create groups so that they can interact with others who have similar interests, whether this entails friendships, music, or business [4].

These websites permit users to upload photos, create their own profiles, and then invite other users to be their friends and part of their online social network.

Moreover, such websites also offer other features such as special interest groups, walls, blogs, video sharing, and messaging. These online activities may be so popular because they coincide with the process of identity construction among users [12].

SNB is important to enterprise because it involves companies deepening their relationships with both existing and new customers, who in turn fuel referrals [6]. This premise is built upon a trusted network; in effect, a new sales channel [5]. SNB excels at driving sales based upon two types of relationships--the relationship between businesses and customers, and the relationship between the customers and customers [2].

SNB typically supports four main goals: (1) increased brand awareness, (2) improved reputation, (3) beneficial relationships, and (4) improved knowledge [2].

Social business networks also encompass links between shops that are usually directed, clickable hyperlinks that customers can use to move between shops [2]. The evolution of a large social network in an online marketplace ultimately allows individuals to create their own personal online shops and to create referral hyperlinks between each other's shops. There have been some cases in which social networks have been successfully employed in online business applications.

For example, e-commerce websites, such as Amazon.com, eBay.com, and Epinions.com, have successfully integrated product reviews, recommendations, searches, and product comparisons, as a part of redesigned customer experience.

<http://www.cisjournal.org>

Recommendation engines and product comparison sites did help consumers to discover new products and receive more accurate evaluations.

Furthermore, group purchasing SNBs such as Group on and Living Social also utilize social media technologies to develop an innovative online business platform for its consumers to come together to buy products in bulk and save money, whereas social networking shopping sites such as Kaboodle are also adopting social media technologies to provide consumers with the ability to share shopping lists with one another.

These success cases reflect that SNB can provide marketers and businesses with new revenue opportunities, while serving consumers with product information and both economic and social rewards for sharing that make it worthwhile for them to come back for more [6].

3. A FRAMEWORK FOR CHARACTERIZING SNBs

A SNB can be characterized by what it offers to consumers, which also demonstrates its technical prowess in terms of what customer drives it appeals. To understand an SNB offering, we adopt the four U-Constructs (ubiquity, uniqueness, universality, unison) [13]. We also use Lawrence and Nohria's framing for understanding drivers (the four U-Constructs) of the human psyche for customers as the drive to acquire, bond, defend, and learn. We then characterize SNBs based on these constructs [14].

3.1 The Four U-Constructs

3.1.1 Ubiquity

The construct of ubiquity includes the ideas of accessibility, reach ability, and portability. Because people are able to access networks from anywhere, they are available at any time through reach ability and accessibility [13]. People are available at any place as well, because of the portability aspect of this construct. This introduces a whole new level of "any time, any place" thinking to our dimensions of thinking.

Ubiquity is not solely a modern construct.

However, as we become nearer to the goal of truly ubiquitous information, this construct becomes more and more apparent. Mankind has always strived for ubiquitous information access, as evidenced in history by the use of repetition and recitation, memorization, and, of course, books [13]. All of these methods have their limitations, however. One of the fundamental human drives has been to overcome these limitations and the boundaries of space and time. Therefore, ubiquity can be defined as the drive to have unlimited access to information, unfettered by the constraints of time and space.

3.1.2 Uniqueness

Uniqueness is a higher-level construct comprised of identification, localization, and portability [13]. It is the idea of complete identification through identity, associated preferences, and geographic location.

Uniqueness combines an overall knowledge of who the customer is according to their identification, as well as their physical geographical position. The ultimate level of the uniqueness construct is achieved when we know who the person is, as well as where they are. This construct can be applied to humans, as well as tangible objects or non-humans. For example, a piece of clothing that a customer buys online is a non-human object, but it is first identified, and then tracked by physical location for logistical purposes for both the manufacturer and the customer.

Uniqueness applies to both humans and inanimate objects; in that it is the ability to extensively describe something in a digital language [13]. For humans, this translates into the digital identification such as their name, birthday, or online scheduler. For non-human objects, this could be a digitization of a price tag or bar code, size, or tracking location. Similar to the construct of ubiquity, uniqueness has been an important information goal to humans throughout history as well.

Passports have long been used to identify travelers, and before photography existed, passports simply contained a physical description of the person travelling. Uniqueness has always been an important construct as we drive to precisely know the informative characteristics and physical location of people and objects.

3.1.3 Universality

Universality is a construct which includes the ideas of universal usability, widespread operation abilities, and multi-function uses [13]. Mobile devices, such as cell phones, are initially limited in their usefulness because of their lack of universality. Cell phones emerged on the market, able to do nothing but make a simple phone call. Now, they are increasing their spectrum of functionalities, as they become cameras, schedulers, and music players as well. In this way, cell phones have become a more universal device that meets more needs of the mobile customer. For instance, now people can carry around one simple device that meets all of their needs, instead of hauling around multiple devices to take care of them. Universality can also be seen as a construct in the computer software industry and programming languages. There is a push for global and national standards, so that all software and programs are able to work together and in any location. Of course, universality is also evident in the consolidation of currency into the Euro. Overall, universality is defined as overcoming the incompatibilities of differing systems.

<http://www.cisjournal.org>

3.1.4 Unison

The construct of unison encompasses the idea of integrating data across many different devices and applications [13]. In this way, people will have a widespread and consistent view of their respective information, regardless of the manner in which they view it. For example, PDAs are able to synchronize personal schedules, addresses, and telephone numbers with desktop computers, and email can be checked using different Internet browsers or email clients. Unison is beneficial for groups of interacting people, such as business project teams, school classes, etc. who need to have their actions or documents synchronized.

A desire for the construct of unison has also been around for a while. In pre-literate societies, rhyme and memorization was used to synchronize actions and information. Rituals and beliefs have also been part of this construct, as parents passed these rituals down from one generation to the next, thus keeping a sense of unison in the family or group. In the business and academic world, people have relied on paper binders and photocopying to achieve the need for unison. The expression, "all on the same page," is used to show this need for unison within groups. These are just some of the ways that we strive for information consistency, or unison.

3.1.5 Summary of U-Constructs [13]

Ubiquity = Reach ability + Accessibility + Portability
 Uniqueness = Localization + Identification + Portability
 Universality = Mobile Networks + Mobile Devices
 Unison = Mobile Applications + Data Synchronization

3.2 The Four Consumer Drives

Consumers possess psychological mechanisms that drive behavior. In particular, Lawrence and Nohria (2002) posit that there are four fundamental psychological and biologically based drives that people possess, which come into play to solve timeless adaptive problems throughout history of humankind that apply to all aspects of social behavior [14]. These drives impact every sort of behavior, including customer behavior; thus, these drives influence the propensity to engage in transaction with or mediated by a SNB. These adaptive problems or activities throughout history have included forming social coalitions, gaining and maintaining status, protecting one and valued others from threats, finding and retaining mates, or caring for family members [15].

Drives formed overtime that did not necessarily develop in coherence with each another. Instead, each drive developed in response to a particular adaptive problem and is thus functionally specialized [16]. There are four basic drives. There is the drive to *acquire*, which is the desire to seek, take control, and retain objects and personal experiences that humans value. The drive to *bond* is the inherent drive to form mutual caring commitments with other humans. The drive to *defend* is

the deep-rooted drive for humans to defend themselves and their valued accomplishments, wherever they perceive them to be endangered. Lastly, the drive to *learn* pushes humans to collect information, assess the needs of a situation, examine their environment, and make observations about explanatory ideas in hopes of making sound judgments.

The *drive to acquire* is a categorization of some evolved psychological mechanisms to seek status, take control, and retain objects and personal experiences that humans value [14]. Humankind has been (and still is) driven to acquire goods that are either material, such as food, clothing, and shelter, or positional, such as social acknowledgement and recognition [16]. The likelihood of survival was greater for those who were more apt at acquiring material goods, since doing so elevated their social status, made them (appear) more capable of caring and providing for others, and thus increased their chances of reproductive success. As a consequence, these individuals had to continue acquiring objects [16] because their social status and power were based on the continued well-being of their acquired dependents and goods [17].

The *drive to bond* is a categorization of some evolved psychological mechanism to form social relationships and develop mutual caring commitments with other humans [14]. Our ancestors engaged in bonding activities to strengthen group cohesion on the inside and form coalitions against the outside. The premise is that those who bonded well had a relative advantage over those who did not. After all, establishing and maintaining groups of individuals bonded by mutual caring relationships improved the odds of surviving environmental threats [16]. Bonding and its associated aspects, such as trust, empathy, compassion, loyalty, respect, partnership, and alliance, also manifests itself in behavioral outcomes that include altruism and establishment of moral codes regarding social relationships [18]. Interestingly, many of the strongest reactions, both positive and negative, are linked to belongingness and engagement in a mutually caring relationship [19].

The *drive to comprehend* is a categorization of evolved psychological mechanisms that push humans to collect information, assess the needs of a situation, examine their environment, and make observations about explanatory ideas and theories to appease curiosity and make sound judgment [14]. This mechanism encourages individuals to seek out information to resolve problems associated with fulfilling fundamental needs [20].

Individuals seek to learn in order to decrease their uncertainty, bring about closure to a problem that challenges well-being, appease curiosity that enhances well-being, or make situations more consistent with what is perceived as a "normal" behavior [20].

The *drive to defend* is a deep-rooted categorization of evolved psychological mechanisms that

<http://www.cisjournal.org>

makes us defend ourselves and our valued accomplishments whenever we perceive them to be endangered. At the individual level, the drive to defend is activated by perceived threats to one's person, valued objects, status, or beliefs [21,22]. At the collective or organizational level, the drive to defend triggers when individuals perceive a threat either to the bonds with others in their group or the collectively shared resources, or as a deviation from socially accepted norms deemed disloyal. The human mind is preconditioned to react to a variety of threats, and the reaction escalates as the severity of the threat heightens [15].

Lawrence and Nohria (2002) apply the Four-Drive model across individuals and groups to explain behavior in and by business organizations, which has been used to explain human orientation towards technology [14]. Lawrence and Nohria (2002) argue that "individuals and social institutions will enjoy adaptive advantage (i.e., advantages in meeting changing business environmental demands) to the extent that they are able to fulfill all four basic human drives" [14]. Providing appropriate tools, technologies, or opportunities appeases these drives and promotes desired behaviors of humans in a number of contexts as individuals, organizational workers, and consumers [21]. In this study, we ascribe to use the four drives in the context of consumers associated with SNBs.

4. MERGING THE FOUR U-CONSTRUCTS WITH THE FOUR CONSUMER DRIVES IN A CONTINUUM

The U-Constructs and the drives can be viewed independently or as a continuum, and in the case of SNB offerings, the continuum of service characteristics can transcend an SNB from merely an emerging entity that affords a status quo service, such as enabling acquiring of goods and services like Craigslist, to one that offers a more complex and specialized capability, like learning by incorporating the other needs denoted in the other drives.

In this utopian state, the SNB enables the customer in synthesizing to attain whatever end state is desired by the customer, and thus enables enriched experiences or changes the nature of the transaction. An example is Match.com, where the SNB facilitates appeasement of each of the other customer drives (i.e., acquiring of ability to meet others as a service, situates a medium for bonding, provides a sterile environment for defending one's privacy and interests in that the SNB provides background checks and assurances of the introductions, and enables customers to engage outside of the virtual existence in the way that it facilitates meeting events). Second Life, and in particular the educational distance learning sectors within it, is another example of a virtual SNB that affords all of the U-Constructs and reconciles simultaneously the customer drives that has enabled richer user experiences with greater reach [23, 24]. These examples demonstrate less of a SNB that is merely offering the status quo amenities and more of one that affords an environment for users to evolve their own

experiences virtually, or even in real life. Thus, the more U-Construct and drive characteristics a SNB embodies, the more innovative capabilities it possesses, as depicted by the following figure.

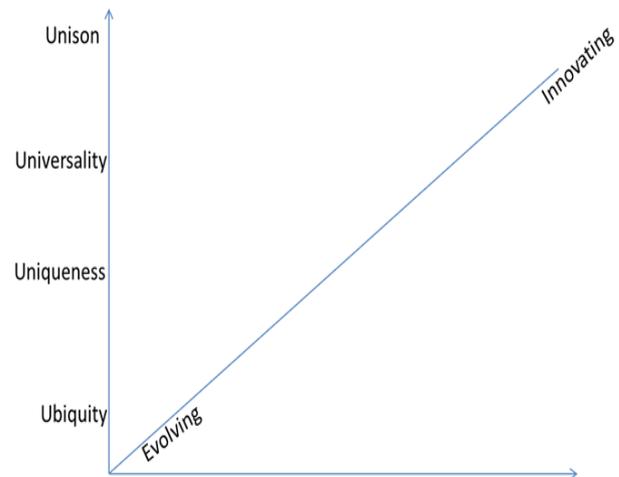


Figure 1: Social network business continuum

Consumers have rationale for why they seek to engage with SNBs, which are the drives. The more parallel the SNBs' capabilities are with what consumers want, the more likely the success of the business. Technology will continue to evolve, so to keep consumers engaged SNBs have to continue to expand their reach and enrich the user experience or suffer failure, losing competitive advantages such as MySpace vs. Facebook, which they can do by moving along the continuum, evolving from a mere status quo presence online to an innovating presence that enriches and transcends the customer interactions into a new engaging experience.

A brief definition follows for *evolving* and *innovating* SNBs: First, the evolving SNB refers to a SNB firm whose offering can cross multiple service channels (e.g., brick and mortar, online pure play, and mobile). For example, evolving SNBs integrate social media technologies into their online business website in order to develop more business opportunity on an electronic space basis. The intent of contemporary SNBs is to provide at least a ubiquitous offering of social media capabilities that transcends service channels, but that are primarily created to at least appease the consumer's drive to acquire goods, services, information, etc. –the basic form of commerce.

Second, innovating SNBs are businesses which adopt social media technologies and integrate innovative strategies to provide innovative shopping experiences for consumers in electronic space across and inclusive of any service channel.

The continuum of capabilities between emerging and innovating depends on the escalated offerings of the SNB to include other mechanisms to appease the other drives:

<http://www.cisjournal.org>

- For bonding (i.e., the SNB facilitating interactions or exchanges of consumers with other consumers that deliberately strengthens the alliance of these consumers with the SNB, such as increasing or switching costs for the consumers to seek engagements with consumers outside of the SNB's facilitated mechanisms),
- For comprehending (i.e., the SNB providing increased capabilities to not only gain or acquire information from sources but also provide rationale, analysis, or assessment for the consumer, lessening the sense-making burden on the consumer with the use of intelligent tools), and
- For defending (i.e., the SNB enabling mechanisms for applying all of the capabilities that appease acquiring, bonding, and comprehending in protecting oneself or others, as in self-preservation, status, property, intellectual capital, or any fraction of value to the consumer).

their books online instead of having to go to a large publisher. At Lulu.com, an author can write their own book and publish it in eBook, Paperback, or Hardcover format virtually within just minutes. A large number of books sold on Lulu.com are written by amateur authors.

Lulu.com also provides its customers with a live, online chat-service to help customers navigate the instructions posted on the website. Unlike many other social media websites trapped in the revenue model problem, Lulu.com is leveraging the power of its community to bring an uninterrupted cash flow to run its business, and thus earn profits.

5.2 An Advanced Evolving SNB

Case 2: Groupon.com

Group on is a deal-of-the-day website that features discounted gift certificates usable at local or national companies. Group on is an example of an SNB that incorporates not only acquiring of goods and services, but it also facilitates bonding in that it supports relationship building, because it enables multiple consumers to engage in commerce or other activities as a group, or at least allows multiple consumers to benefit collectively from offering to individually transact with the SNB. The SNB services are at least ubiquitous in nature in that the offering is accessible via multiple service channels. Group on works as an assurance contract using The Point's platform: if a certain number of people sign up for the offer, then the deal becomes available to all; if the predetermined minimum is not met, no one gets the deal that day. Group on makes money by keeping approximately half the money the customer pays for the coupon. Group on is a significant example of an evolving SNB that has an increased offering propelling it upward along the continuum towards being innovating, because its online social business evolved into a mobile social business by launching mobile technologies available on contemporary mobile devices that provide uniqueness and at least universality. Groupon's mobile apps help users to purchase deals from their mobile phones, bypassing the step in which they have to print the proof of purchase and see the deals near their location. Moreover, with the Group on 'Now' feature, mobile users now do not need to wait for the deal to be activated. They can check the deals around their location and grab them right away at the touch of a button. Their mobile apps add a location layer, which greatly improves the consumer experience of purchasing a deal. Recently, Group on has been partnering with big mobile apps and app makers to run real-time promotions of Groupon's deals from its clients on the basis of proximity.

5. CASE ANALYSIS APPLYING THE SNB CONTINUUM

In this section, we discuss the characteristics of the four SNB types with a case analysis of the selected SNB model. Whereas numerous SNBs currently exist, the SNB case presented herein was selected on the basis of its popularity and representativeness in the field of SNB.

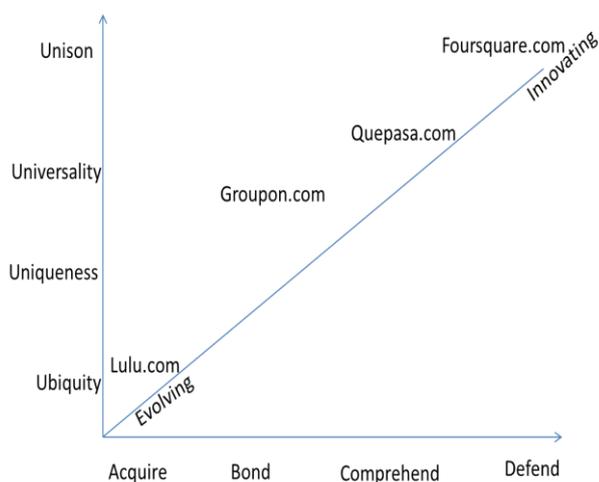


Figure 2: SNB continuum with cases

5.1 A Basic Evolving SNB

Case 1: Lulu.com

Lulu.com is one of the evolving SNBs; it evolved from an online bookstore that features books written by the members of its community into a SNB website via the implementation of social media technologies. It facilitates the basic human drive of acquiring goods, services, and/or status/recognition of, in this case, one's intellectual capital. Its service channel offering provides at least ubiquity. Lulu.com is a community of individual authors, who are able to publish

5.3 A Basic Innovating SNB

Case 3: Quepasa.com

Quepasa.com is one of the largest Latino social networking businesses around. The site allows access to a large collection of online resources including, but not limited to, content, news, search, email, chat, message

<http://www.cisjournal.org>

boards, maps, personalized web pages, customization features, and location-based shopping services. Thus, Quepasa.com offers capabilities to promote acquiring, bonding, and comprehending of massive amounts of information from various resources, while providing at least ubiquitous and universality in its service channels offerings, as well as uniqueness to allow for the individual consumer offerings based on preferences and location.

Moreover, Quepasa.com is a global tri-lingual SNB for the Latino audience featuring new friends, games, contests, flirting, pictures, communities, videos, and music. There is also a Mexico lottery, a US lottery, horoscopes, games, interactive and easy-to-use social tools, and rich multimedia content in English, Spanish, and Portuguese to embrace Latinos everywhere, and empower them to connect online, compete in contests and games, and share their interests, ideas, and activities. It is a pure SNB that allows the user to access entertainment and news clips, share playlists, upload videos, and search.

Besides the videos, Quepasa.com has profiles, friends, blogs and chat rooms, job listings, even calendars and contests. There is also a very handy English-Spanish and vice versa translator. This, too, is indicative of its service channels providing universality. Quepasa.com intends to generate revenue through distributed social media (DSM) advertising, commissions, and the selling of virtual goods and services.

5.4 An Advanced Innovating SNB

Case 4: Foursquare.com

Foursquare is a location-based social networking website that allows registered users to acquire information about other users, businesses, and a multitude of topics related to those registered users. They are able to connect with friends, which facilitates bonding, synthesizing information about others, or options for possible topics or other connections. Users may be interested in enabling better comprehension of the available information on the site and update their location, but do so in a manner that provides capabilities to protect sensitive information, and limit display of information, thereby defending the consumers. Foursquare's users can check in at venues

using a mobile website, text messaging, or a device-specific application by running the application and selecting from a list of venues that the application locates nearby, exhibiting ubiquity and universality in its service offering. Individual points are awarded for checking in at venues enabled by location-based services, thereby demonstrating uniqueness. Users can choose to have their check-ins posted on their accounts on Twitter, Facebook, or both, characteristic of unison in their service offering.

Moreover, Foursquare's users can also earn badges by checking in at locations with certain tags, for check-in frequency, or for other patterns such as time of check-in. Foursquare is a significant example of mobile innovative social business, because Foursquare has the smartest initiative for brands to power mobile marketing and business, and with the typical mobile applications, most of the real impact on sales will occur in a mobile base. Today, many brands have made good use of foursquare pages for innovative campaigns to increase sales and gain promotions. For example, the New York Times partnered with Foursquare during the 2010 Winter Olympics and guided the visitors to the best tourist spots across Vancouver. Similarly, foursquare partnered with restaurant reviewer Zagat to help users find the best restaurants around them with reviews and ratings. All of these capabilities clearly indicate Foursquare (*aptly named*) as an exemplary advanced innovating SNB, which embodies the spectrum of characteristics comprised of the four U-commerce constructs and the four consumer drives.

6. PROFILES OF SNBs ALONG THE CONTINUUM

This section summarizes the profiles of the four types of SNB, as shown in Table 1. The four types of SNB have different characteristics, as well as their own strengths and weaknesses. The taxonomy of the four types of SNB is worth addressing, since they provide insight to researchers examining new research issues and introduce useful guidelines for practitioners who are seeking the best ways to increase their competitiveness in SNB.

Table 1: Profiles of social networking businesses along the continuum

Division	Basic Evolving SNB	Advanced Evolving SNB	Basic Innovating SNB	Advanced Innovating SNB
Major Examples	•Lulu.com	•Group on	•Quepasa.com	•Foursquare
Type	•Evolving	•Evolving	•Innovating	•Innovating
Service Channel	•Online	•Mobile	•Online	•Mobile
Characteristics	•Add value to the existing business and provide better shopping experience for consumers	•Add value to the existing business and provide better shopping experience for consumers •Connect online and mobile channels	•Integrated innovative strategies to provide services to consumers	•Integrated innovative strategies to provide better shopping experience for consumers •Connect online and mobile channels
Business Relationship	•Customer to Customer •Business to Customer	•Business to Customer	•Customer to Customer	•Customer to Customer •Business to Customer

<http://www.cisjournal.org>

			•Business to Customer •Business to Business	•Business to Community
Target Customer	•Current customers	•Current customers	•Current customers •New customers	•Current customers •New customers
Primary Technology	• Social media optimization •Social applications •Online chat service	• Referrals tool •Social shopping tools •Social media optimization •Social applications •Group buying tools •QR codes	•Distributed Social Media (DSM) • Social application • Social games • Social media optimization • Virtual trading	• Recommendations and referrals tool •Social media optimization •Social applications •QR codes
Revenue Source	•Commissions •Sales of virtual goods	•Discounted gift certificates	•Advertising •Commissions •Sales of virtual goods and service	•Partnership with local businesses •Frequency of check-in traffic
Strategic Focus	•Growth •Cost •Alliance	•Growth •Cost •Alliance	•Radical innovation •Alliance	•Radical innovation •Growth •Alliance

First, a basic evolving SNB is characterized by adding value to the existing business and provides a better shopping experience for current customers. It drives sales based on two types of relationships: (1) the relationship between businesses and existing customers, and (2) the relationships between customers and customers. Online evolving SNBs employ social media optimization, social applications, and online chat services as their primary technology. Commissions and sales of virtual goods are the principal revenue sources for online evolving SNBs. Its major strategic foci are growth, cost, and alliance.

Second, advanced evolving SNBs add value to the existing business and provide a better shopping experience for current customers, and also connect both online and mobile channels. They drive sales based on the relationships between businesses and existing customers.

This type of SNB employs referral tools, social shopping tools, social media optimization, social applications, group buying tools, and QR (Quick Response) codes as its primary technology. Discounted gift certificates are the source of revenue for mobile evolving SNBs. Its strategic foci are growth, cost, and alliances.

Third, basic innovating SNBs integrate innovative strategies to provide a better shopping service to the users. This drives sales on the basis of three types of relationships: (1) the relationship between businesses and existing customers, (2) the relationship between businesses and other businesses, and (3) the relationship between customers and other customers. This type of SNB employs network communities, distributed social media (DSM), social application, social games, social media optimization, and virtual trading as its primary technology. Advertising, social games, commissions, and sales of virtual goods and services are the primary revenue sources for online innovating SNBs. Radical innovation and alliances are their strategic foci.

Fourth, advanced innovating SNBs integrate innovative strategies to provide a better shopping experience for current customers and new customers, and also to connect both online and mobile channels. It drives sales based on three types of relationships: (1) the relationship between businesses and existing customers, (2) the relationship between businesses and online communities, and (3) the relationship between customers and customers. This type of SNB employs recommendations and referral tools, social media optimization, social applications, and QR codes as its primary technologies. Partnerships with local online businesses and the frequency with which a user "checks in" at venues using a mobile website constitute the principal sources of revenue for mobile innovating SNBs. Their strategic foci are radical innovation, growth, and alliance.

As shown in Table 1, basic evolving SNB and advanced evolving SNB have some commonalities: they both pursue evolutionary business types, and they both employ the current customer as their major source of income. Meanwhile, basic innovating SNBs and advanced innovating SNBs have the following in common: both business types are innovative, and new customers constitute their major targets for new income.

7. IMPLICATIONS & CONCLUSION

A great number of SNBs have emerged and disappeared in the ever-changing global digital business field. Recent advancements in mobile technologies that enable service channel offerings to ascribe to the four u-commerce constructs (i.e., ubiquity, uniqueness, universality, and unison) have facilitated the growth of the DGB industry. As the interest for SNB from both business and customers is ever-increasing, it can be understood along the dimensions of four consumer drives: the drive to acquire, bond, comprehend, and defend. Having knowledge of these constructs in a continuum aids in understanding SNBs in terms of their typology (i.e., basic evolving, advanced evolving, basic innovating and advanced innovating) that enables differentiating them for

<http://www.cisjournal.org>

research purposes such as comparative analysis. This study analyzed the profiles of the four SNB business models in terms of the revenue sources, business type, business relationship, target customer, primary technology, revenue source, and strategic focus that also aids in differentiating SNBs for Operationalization in research.

The major takeaways from the typology and continuum of SNBs described in this study can be summarized as follows: First, evolving SNB is typified by adding value to the existing business and supporting a better shopping experience for current customers.

Evolving SNBs deal with sales pertaining to two types of relationships: (1) the relationship between businesses and existing customers, and (2) the relationships between customers and other customers.

This type of SNB makes use of social media optimization, social applications, and online chat services as its primary technologies. The principal revenue sources are commissions and sales of virtual goods for online evolving SNBs. Their major strategy focuses on growth, cost, and alliance.

Second, advanced evolving SNBs augment value to the existing business by supporting a better shopping experience for current customers on both online and mobile channels. This type causes sales to make progress on the relationships between businesses and existing customers. Its primary technologies are referral tools, social shopping tools, social media optimization, social applications, group buying tools, and QR (Quick Response) codes. The source of revenue is discounted gift certificates for mobile evolving SNBs. Its strategies concentrate on growth, cost, and alliances.

Third, basic innovating SNBs pursue innovative strategies to serve a better shopping experience for current and new customers. This type of SNB executes sales pertaining to the three types of relationships: (1) the relationship between businesses and existing customers, (2) the relationship between businesses and other businesses, and (3) the relationship between customers and other customers. This type utilizes network communities, distributed social media (DSM), social applications, social media optimization, and virtual trading as its primary technologies. This type makes the main source of revenue sources from advertising, social games, commissions, and sales of virtual goods and services. Its major strategic focuses are radical innovation and alliance.

Fourth, advanced innovating SNBs seek innovative business approaches to encourage a better shopping experience for current customers and new customers by linking online and mobile channels. It carries out sales based on three types of relationships: (1) the relationship between businesses and existing customers, (2) the relationship between businesses and

online communities, and (3) the relationship between customers and other customers. This type uses recommendations and referral tools, social media optimization, social applications, and QR codes as its primary technologies. The major sources of revenue are partnerships with local online businesses and the frequency with which a user "checks in" at venues using a mobile website. As for major strategies, radical innovation, growth, and alliances may be a valuable direction for this type of SNB.

Our study hopes to provide a theoretical background for future studies, as well as valuable insights into practical applications in the ever-growing field of SNB. As our study is exploratory in nature, further research will be required to address specific issues related to particular SNB models. Moreover, as the proposed typology reflects only the current state of the SNB industry, a further elaboration of the typology may also prove necessary in the future, as technologies and the SNB industry evolve.

REFERENCES

- [1] R. T. Watson, L. F. Pitt, P. Berthon, and G. M. Zinkham. U-Commerce: Extending the Universe of Marketing Journal of the Academy of Marketing Science, 30 (2002), pp. 329-343.
- [2] J. Wilson. Social Networking: the business case. Engineering & Technology (2009), pp. 54-56.
- [3] O. Kwon and Y. Wen. An empirical study of the factors affecting social network service use Computer in Human Behavior, 26 (2) (2010), pp.254-263.
- [4] D. M. Boyd and N. B. Ellison Social network sites: Definition, history, and scholarship Journal of Computer-Mediated Communication, 13 (1) (2008), pp. 210-230.
- [5] D. Bulmer and V. DiMauro. Executive summary from the society for new communications research study: The new symbiosis of professional networks: Social media's impact on business and decision-making. Journal of New Communications Research, 4 (2) (2009), pp. 93-100.
- [6] N. D. Kho. Networking opportunities: Social networking for business EContent (2007), pp. 24-29.
- [7] J. Wilson. Social Networking: the business case. Engineering & Technology (2009), pp. 54-56.
- [8] S. Dekay. Are business-oriented social networking web sites useful resources for locating passive jobseekers? Results of a recent study. Business Communication Quarterly (2009), pp. 101-105.

<http://www.cisjournal.org>

- [9] N. D. Barnes, F. F. Barnes. Equipping your organization for the social networking game *Information Management* (2009), pp. 28-33.
- [10] L. Neale and R. Russell-Bennett What value do users derive from social network applications? *First Monday*, 14 (9) (2009), pp. 1-14.
- [11] T. Finin, and L. Z. Ding, and A. Joshi Social networking on the semantic web *The Learning Organization*, 12 (5) (2005), pp. 418-435.
- [12] R. Nyland and C. Near. Jesus is My Friend: Religiosity as a mediating factor in Internet social networking use *AEJMC Midwinter Conference, Reno, Nevada* (2007), pp. 1-30.
- [13] I. Junglas and R. T. Watson. The U-Constructs: Four Information Drives *Communications of the Association for Information Systems*, 17 (2006), pp. 369-592.
- [14] P. R. Lawrence and N. Nohria. *Driven: How Human Nature Shapes Our Choices* Jossey Bass, San Francisco (2002).
- [15] N. Nohria, B. Groysberg, and L. Lee Employee motivation: A powerful new model *Harvard Business Review* (2008), pp. 78-84.
- [16] D. Buss. The evolutionary psychology of human social strategies, in E. Higgins and A. W. Kruglanski. *Social Psychology: Handbook of Basic Principles* (1996), pp. 3-38.
- [17] L. Cosmides, J. Tooby, and J. Barkow Evolutionary psychology and conceptual integration, in J. Barkow, L. Cosmides, and J. Tooby. *The adapted mind: Evolutionary psychology and the generation of culture*, Oxford University Press, New York (1992).
- [19] C. E. Rusbult and P. A. M. Van Lange. Interdependence, interaction, and relationships *Annual Review of Psychology*, 54 (2003), pp. 351-375.
- [20] R. F. Baumeister and M. R. Leary. The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117 (3) (1995), pp. 497-529.
- [21] S. Kaplan. Environmental preference in a knowledge-seeking, knowledge-using organism, in J. Barkow, L. Cosmides, and J. Tooby. *The Adapted Mind*, Oxford University Press, New York (1992), pp. 581-600.
- [22] J. R. Hackman and R. E. Kaplan. Interventions into group process: An approach to improving the effectiveness of groups. *Decision Sciences*, 5 (1974), pp. 459-480.
- [23] L. Hirschhorn. *The Workplace Within: Psychodynamics of Organizational Life* MIT Press, Cambridge (1988).
- [24] C. Abraham, M. C. Boudreau, I. Junglas, and R.T. Watson. Enriching the IS Theoretical Repertoire: The role of evolutionary psychology in technology acceptance. *European Journal of Information Systems*, 22 (2013), pp. 56-75.