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## **Online social networks and fashion shopping**

A study of the influence of social networks on shopping decisions made  
by consumers in the fashion market

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# Abstract

The emergence of online social networks as the main communication channel between users in the web has created a plethora of opportunities and challenges for companies. While firms can potentially reach and advertise to a targeted audience at a low cost, the communication model between firms and consumers appears to be in need of adaptation due to the unique circumstances of social networks and the behavior of its consumers.

In order to this, it is essential to first understand how consumers exchange product information between them and how they are influenced by it. To investigate this, surveys among fashion users and interviews with executives from fashion firms have been performed.

212 fashion users were surveyed in order to determine their behavior in the search, use and exchange of product information in a social network environment, and shopping behavior after the process of collecting information. In addition, executives from 3 fashion companies were interviewed to understand company interaction with customers through social networks and gain a more complete picture of the phenomenon.

The main variables analyzed were the degree to which respondents contacts share product information, the degree to which respondents are willing to share information, the level of interest in product information from a respondent's network, and the degree to which consumers are influenced by network provided information.

From the regressions and interviews it can be concluded that the availability of fashion product information in social networks triggers information exchange between users, and that network provided information is highly influential and plays a powerful role in shopping decision making.

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We also would like to thank our supervisor, assistant professor Mikael Samuelsson, for his continuous support and feedback during the time this master thesis was written. His contribution has been priceless and this thesis could have not been possible without his help.

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Stockholm, December 1<sup>st</sup> of 2012

Alberto Redondo

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## Abbreviations

<b>ESS</b>	Explained sum of squares
<b>EU</b>	European Union
<b>IPO</b>	Initial Public Offering
<b>OLS</b>	Ordinary Least Squares
<b>RSS</b>	Residual sum of squares
<b>SSE</b>	Stockholm School of Economics
<b>TSS</b>	Total sum of squares

## Definition of key terms

Customer involvement: state of mind that motivates consumers to identify with product or service offerings, their consumption patterns and consumption behavior.

Consumer search behavior: actions taken to identify and obtain information as the means of solving a consumer problem.

Online social network: website whose main purpose is to facilitate the building of social relationships among different people.

Shopping decision process: process undertaken by consumers in regard to a potential market transaction before, during, and after the purchase of a product or service.

Word-of-mouth communication: exchange of comments, thoughts or ideas between two or more consumers, when none of them represent a marketing source.

# Table of Contents

Abstract.....	ii
Acknowledgments .....	iii
Abbreviations.....	iv
Definition of key terms .....	iv
1. Introduction .....	4
1.1 Background .....	4
1.2 Problem discussion .....	6
1.3 Purpose and research question.....	7
1.4 Demarcations .....	8
1.5 Disposition of the thesis.....	8
2. Theoretical Framework.....	10
2.1 Standard buyer behavior model .....	11
2.1.1. Consumer search behavior .....	11
2.1.2. Consumer knowledge .....	13
2.1.3. The decision making process.....	16
2.2. Social network behavior model.....	18
2.2.1. Motivation to exchange information in social networks .....	18
2.2.2. Information exchange process in social networks.....	22
2.2.3. Influence of information in social networks.....	25
2.3. Hypotheses formulation model.....	26
2.3.1. Hypothesis 1.....	27
2.3.2. Hypothesis 2.....	27
2.3.3. Hypothesis 3.....	29
2.3.1. Hypotheses formulation model representation .....	30
3. Methodology .....	31
3.1. Research question .....	31
3.2. Initial work.....	32
3.2.1. Choice of the research subject.....	32
3.2.1. Relevance of the field of study.....	33
3.3. Target groups .....	34
3.3.1. Online survey .....	34
3.3.2. Interviews with social media and marketing managers .....	34
3.4. Nature of logical reasoning used .....	35
3.5. Conducting a quantitative or qualitative survey .....	36

3.6. Creation process.....	36
3.6.1. Online survey .....	36
3.6.2. Personal interviews with fashion managers .....	38
3.7. Concerns and limitations .....	39
3.7.1. Survey .....	39
3.7.2. Interviews .....	41
3.8. Timeline.....	42
3.8.1. Student surveys.....	42
3.8.2. Interviews .....	42
3.9. Hypotheses test methodology .....	42
3.9.1. Variables .....	43
3.9.2. OLS regression model .....	46
3.9.3. Regression fitness .....	46
4. Empirical results and analysis .....	49
4.1 Descriptive results.....	49
4.1.1 General description .....	49
4.1.2 User composition.....	50
4.1.3 Online social shopping .....	51
4.2 Descriptive statistics .....	53
4.3 Sample size.....	54
4.4 Hypotheses test .....	54
4.4.1 Hypothesis 1 test .....	54
4.4.2 Hypothesis 2 test .....	58
4.4.3 Hypothesis 3 test .....	61
5. Discussion .....	64
5.1 The appearance of information triggers a powerful process .....	64
5.2 Information flows quickly through word of mouth communication.....	65
5.3 Fashion consumers are highly influenced by their networks .....	67
5.4 Fashion firms have been very slow to react to this phenomenon .....	69
5.5 The current consumer communication model is becoming obsolete .....	70
6. Conclusion.....	72
6.1. Answer to our research question .....	72
6.2. Empirical contributions .....	73
6.3. Thesis limitations .....	75
6.4. Suggestions for further research .....	76
7. References.....	77

7.1 Interviews.....	81
Appendix 1: Survey questionnaire.....	82
Appendix 2: Descriptive statistics.....	86
Appendix 3: Interviews questionnaire.....	88

# 1. Introduction

*In this section we outline the background of the thesis, which is followed by the discussion of the consequent problems. Then, the purpose of the thesis and the research question this thesis attempts to answer are stated. Next, the demarcations of the thesis are presented to explicitly establish the limits of the study. Finally, the disposition of the thesis is given.*

*The objective of this section is to provide the reader a clear view of what this thesis attempts to do, and how it will be done in the following sections.*

## 1.1 Background

### *Social networks dominate users life online*

Although there is a tendency to think of online social networks as a new phenomenon, they have existed for about fifteen years, but have only gained popularity recently. Arguably the first major online social network site, SixDegrees, was launched in 1997 (Howard, 2008). While its acceptance among Internet users cannot be comparable to Facebook, the company started a revolution that is in its high point today.

This revolution, although technological in essence, has also dramatically changed online user behavior. Social networks have allowed users to bring the social experience to the web, having important consequences for the industry. By giving users a platform to express their identities, interact socially and be entertained at the same time, social networks are now a dominant force in the web.

82% of all Internet users above the age of 15 now use social networks, which accounts for 1.2 billion users (The New Age, 2011). Furthermore, Facebook, the main social network with more than one billion monthly active users, now accounts for one out of every seven minutes spent online on a global basis (The New Age, 2011). 60% of teenagers and 67% of young adults visit social networking sites at least once a day (Li, 2007). Probably the main reason for monopolizing users online activities is the nature of such activities, which center on interacting with friends and family (Li, 2007).

### *Young female consumers are the main users of online social networks (Denis et al., 2010)*



In contrast with other forms of media, online social networks are primarily utilized by a very young audience, with people in their 20s and 30s being the main users (Cha, 2009), although their use is becoming more widespread with the rest of the population, especially with users over 35 years of age (Morris, et al., 2010). Furthermore, online social networks are dominated by young women (Dennis, et al., 2010), which represent more than half the user population and spend significantly more time than any other group (Dennis, et al., 2010).

### *Information spreads quickly and with great influence in online social networks*

If there is an average of six degrees of separation between people offline, less than three degrees are more likely online according to Howard (2008). Due to this low degree of separation between users (Howard, 2008), information tends to disseminate rather quickly thanks to the highly active users that hold and mold network activity (Mislove, et al., 2007). The implications for business firms are clear. As a small percentage of users dictate the information being dispersed through the network, the identification of such users is of extreme importance in disseminating a message.

Already having established how information is dispersed, it is also important to know the level of user influence to determine the degree of effectiveness in the dissemination of information. Even though online social networks are typically large collections of weak ties (Steinfeld, 2008), most interaction happens with close friends (Jiang, et al., 2010; Boyd & Ellison, 2008; Mesch & Talmud, 2007), and consequently, trusted, close friends can significantly alter user online behavior (Harris & Dennis, 2011).

### *High involvement products are likely to be discussed in online social networks*

Although users of online social networks are open to discuss product information between them, only high involvement products, such as fashion items, can achieve the excitement needed for the information to spread quickly and be influential (Shih, 2009).

Customer involvement with the product increases in regard to the degree of product social visibility (Mowen & Minor, 2001). In addition, high involvement products are closely related to the development of the self-concept and self-esteem of users (Mowen & Minor, 2001), vital motivations for the use of online social networks (Deighton & Kornfeld, 2007; Gangadharbatia, 2008). As a result, these high involvement products are the main ones discussed between users in online social networks.

## 1.2 Problem discussion

### Consumers have difficulty finding desired information online

Consumers are flooded with product information online, much of which is irrelevant to the user and has little or no personalization (Shih, 2009). The amount of information received by any user is too extensive, which is why social filtering, through online networks, can help in creating a method to receive relevant and trusted information about products and services (Shih, 2009). By implementing social filters, Shih (2009) notes that firms might be able for the first time to "effectively target ads without annoying audiences or triggering privacy concerns". If it is true that our e-mail inboxes receive much unwanted information, by limiting information to that provided by trusted friends and family members, it just might be possible to effectively receive product information.

### Consumers would welcome product information through online social networks

Research by Cha (2009) revealed that almost half of all consumers would visit social networking sites to actively search for and discuss holiday gift ideas, and almost one third said they would purchase products directly through social networks. This indicates the openness for the concept, as well as the desire for a well-executed network that can allow such activities. 33% of Facebook users are fans of brands, and 60% of these consumers are more likely to purchase or recommend to a friend after liking a brand (Harris & Dennis, 2011). In addition, it should be mentioned that the highest potential for this concept is found in high involvement industries, such as fashion (Shih, 2009), which is one of the main interests of online social network users (Dennis, et al., 2010).

### Social networks are maturing and still do not have a solid business model

As a result of their attractiveness and growth, online social networks can now be said to be in a more mature market that naturally begins the process of consolidation. Whereas six of the top twenty most visited websites in 2007 were online social networks, only two years later the number had been down to two (Cha, 2009), as smaller firms disappear or are acquired by bigger companies. In addition, the lack of a solid business model for online social networks has raised the barriers to entry (Cha, 2009). While it is true that online social networks represent great promise, illustrated by the fact that Facebook's IPO valued the company at 100 billion dollars (Bloomberg, 2012), the industry is still figuring out how to maximize the value of user information. Notwithstanding, the value of the

Facebook shares has declined constantly amid fears on business model validation (Stewart, 2012)

Considering the previously mentioned conditions, the specific problem this thesis attempts to explore is the lack of trusted and relevant product information that fashion consumers can easily access in online social networks, especially considering the popularity of the platform. This poses substantial problems for both consumers and companies. While consumers cannot easily find the desired product information, companies cannot take full advantage of the potential offered by online social networks.

### **1.3 Purpose and research question**

Considering the background and subsequent problem already raised, it is highly relevant to understand the nature of product information discussed between users of online social networks, taking into account it is a valid alternative to find product information amid the vastness of online data and decline of advertising effectiveness. To understand this more deeply, the research focuses on how the phenomenon presents itself in the fashion industry, which closely resembles the identity building and high involvement manifested by users of online social networks.

We have chosen the fashion industry for two main reasons: first, in the fashion segment a higher involvement is generated between customers on one side, and products and their brands on the other (Shih, 2009). We believe that this will make easier to validate consumer behavior models based on information sharing. Second, we consider this segment relevant enough in economic terms for academic research.

Specifically, this thesis analyzes the essence of product information exchange in a social network platform, by finding out how this information is shared between users and ultimately, the impact it has in shaping purchasing decisions. If this purpose is achieved, the results of our research could provide the insights needed to develop a platform that effectively allows product information exchange between online social network users in a manner that benefits both consumers and companies.

In order to achieve this, we will attempt to answer the following research question:

***How does the exchange of product information between consumers in online social networks shape shopping decisions in the fashion industry?***

## 1.4 Demarcations

Several delimitations have been made in this thesis for a number of reasons. First, the study is limited to the fashion market because customers have a higher level of involvement with fashion products than most other products (Shih, 2009). Among other high-involvement products, fashion has been selected for our study due to its economic relevance in most developed economies. Therefore, the conclusions we draw in this thesis are only applicable to fashion shopping processes.

Second, we have decided to limit the geographic scope of the study to two regions: Western Europe and North America. For obvious reasons, Sweden will be overrepresented in our study in terms of market relevance. However, we strongly believe that the conclusions of this thesis will be applicable to both Western Europe and North America.

Finally, in terms of gender distribution of our sample, women are more represented than men. We deliberately sought this gender imbalance in our quantitative study because in the fashion market, women are more relevant than men in terms of consumption and product information exchange (Cha, 2009).

Although the purpose of this master thesis is to provide reliable and valid results, the delimitations we have explained have been strictly necessary.

## 1.5 Disposition of the thesis

Chapter 1, ***Introduction***: The thesis is introduced by presenting the background to the topic, which then makes clear the problem discussion. As a result of this, the purpose and research questions are established.

Chapter 2, ***Theoretical framework***: This introduction is followed by the theoretical framework. This section is developed in a sequential way, starting with the theory of the standard buyer behavior model, followed by the theory of product information exchange in a social network environment and concluded with the hypotheses formulation model. This model connects both theories with the formulation of the hypotheses.

Chapter 3, ***Methodology***: The methodology developed to answer our research question will be presented, as well as the dependent and independent variables used in the study. Also, thesis reliability, validity and overall value will be discussed.

Chapter 4, ***Empirical results and analysis***: Descriptive statistics and empirical results of the regressions performed as part of the quantitative study of the thesis, as well as the analysis of the qualitative study of our thesis will be presented and analyzed.

Chapter 5, ***Discussion***: The results and implications for management in taking advantage of product information exchange between online social network users will be discussed.

Chapter 6, ***Conclusion***: Our thesis is finalized by summarizing the most relevant results, the empirical contributions to existing research, and the limitations and suggestions for further research in this area.

## 2. Theoretical Framework

*In order to answer the research question, the theoretical framework will be focused on the standard buyer behavior model and product information exchange in a social network environment. This section is presented in a sequential way, starting with the standard buyer behavior model so the reader can understand what triggers consumers actions (information and knowledge). The second section of the theoretical framework is the social network behavior model that analyzes how social networks influence fashion consumers decisions. Finally, the hypotheses formulation model connects the most important insights of the explained models with the formulation of the hypotheses.*

*In order to help the reader understand the structure of the theoretical framework, in the following figure we present the development of the theory and the formulation of the hypotheses.*

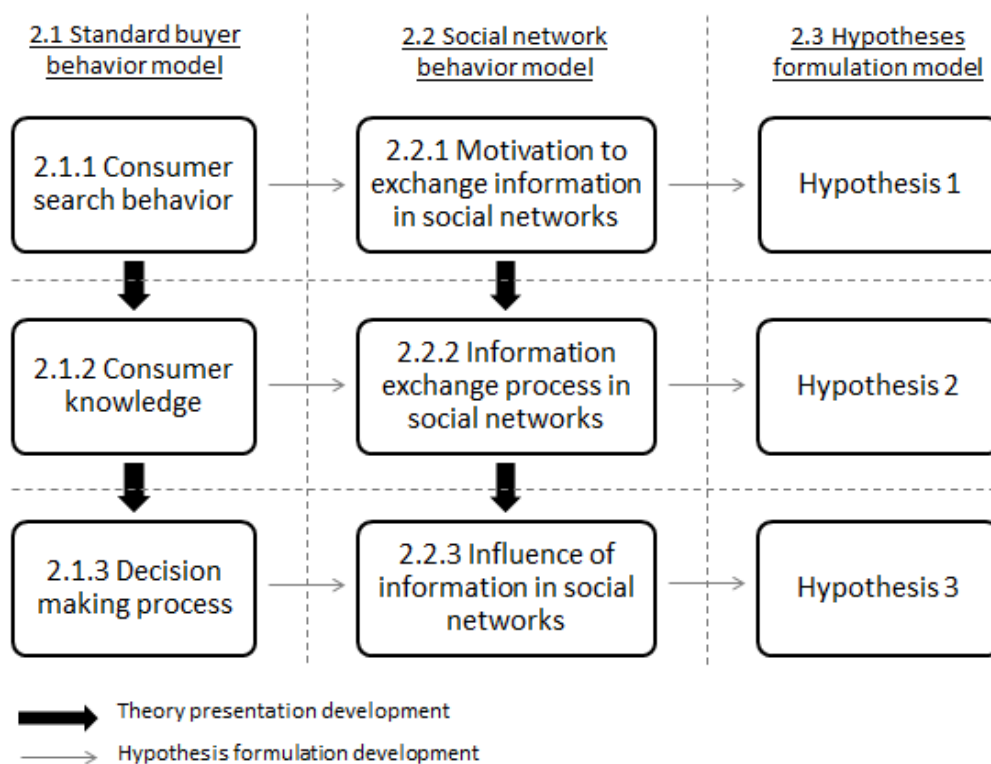


Figure 1 – Theoretical framework structure

## 2.1 Standard buyer behavior model

In this section we want to analyze how consumers search for the information they need to make shopping decisions and how this information consolidates into the knowledge the consumer has about products and services.

The specific approach we have taken in the analysis of the buyer behavior model is focused on the influence online social networks have in high customer-involvement industries, such as the fashion industry. The objective of this section is to provide the reader an understanding of what elements influence the buyer behavior model.

### 2.1.1. Consumer search behavior

*How do consumers act when searching for information and what actions do they take to find the desired product information?*

Consumers solve problems by internally and externally searching for information

Consumer search behavior is defined as the actions taken to identify and obtain information as the means of solving a consumer problem (Mowen and Minor, 2001). According to Teo and Yeong (2003) there are two types of consumer search processes: internal search and external search.

#### 2.1.1.1. Internal search

Consumers retrieve product information from long-term memory

The categories of brands that consumers may retrieve from long-term memory are as follows (Chartrand, 2005):

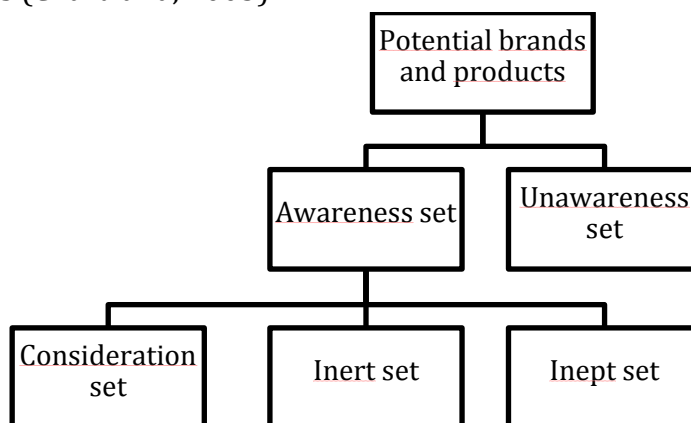


Figure 2 - Internal search scheme

The awareness set is the subset of the total universe of potential brands and products available that the consumer is able to retrieve from his or her memory. After identifying the awareness set, the consumer separates the group into three additional categories: the consideration set (products and brands acceptable for consideration), the inert set (products and brands to which the consumer is indifferent) and the inept set (products and brands that are unacceptable to buy).

#### **2.1.1.2. External search**

Highly involved consumers, such as fashion consumers, rely on external searches

According to Chu and Kim (2011), consumers engage in heavy amounts of external search when they are highly involved with the type of the product they purchase, which is the case with fashion items, as it will be explored in this thesis. From a behavioral economics point of view, we want to demonstrate that fashion consumers incur in heavy information seeking patterns for two reasons: the high availability of online information and the high involvement with these products.

#### **2.1.1.3. Word-of-mouth communication**

Out of all external information, word-of-mouth communication is the most influential

Word-of-mouth communication refers to the exchange of comments, thoughts or ideas between two or more consumers, when none of them represent a marketing source (Chu and Kim, 2011). According to Trusov, et al. (2009), referrals from others account between three and eight times as many purchases as advertising did in the short run, and up to twenty times in the long run. Moreover, Dellarocas and Narayan (2006) found word-of-mouth to be directly correlated with purchase probability, as product information quickly spreads through social networks.

Both senders and receivers of information are highly motivated to use this medium

The motivation for the sender of word-of-mouth information results from the feeling of power and prestige from influencing others, and the motivation of the receiver comes from the desire to minimize purchase risk through access to different information rather than the one provided by the companies through advertising (Chu and Kim, 2011).

Fashion consumers and social networks users communicate using word of mouth



When the receivers are highly involved in a purchase decision, they tend to go through a longer information search process that involves word-of-mouth communication (Dreighton and Kornfeld, 2007). Furthermore, in high involvement shopping processes, such as in the case of fashion items, personal influence is increasingly important (Mowen and Minor, 2001). As the Internet and social networks have made it easier for consumers to exchange information through word-of-mouth (Clemons, 2007), the attention that consumers pay to traditional advertisements is lower nowadays than ever (Pavlou and Stewart, 2000). In addition, opinion leaders, who are the consumers that influence the purchase of others in a larger scale, find it easier to diffuse their opinions.

### **2.1.2. Consumer knowledge**

*How is knowledge acquired, how is it influenced what role does it play during the consumer search behavior process previously described?*

*Knowledge of others has greatly increased its importance as an information source*

According to the definition of Alba and Hutchinson (1998), consumer knowledge is the amount of experience and information that a person has about particular products or services. Three types of consumer knowledge can be identified: objective knowledge (correct product information stored in a consumer's long-term memory), subjective information (product information consumer perception), and knowledge of others (information the consumer has about how much others know about a product).

Traditionally, company advertisements were made to influence consumer knowledge, whether objective or subjective. However, the irruption of the Internet and an easier access to knowledge of others has consequently led knowledge of others to have a greater importance as a consumer knowledge source, and has now become a key part of how consumers create an opinion towards a product or service (Pavlou and Stewart, 2000).

#### **2.1.2.1. Consumers learning process**

*Online social networks allow consumers to gain knowledge and actively share it*

The online social networks framework allows customers to gain knowledge through experience and share their experiences with other people to a larger

extent than via physical word-of-mouth. For companies, it is important to meet customer expectations, since an unhappy customer is much more likely to share his or her experience with other people than a happy customer (Mowen and Minor, 2001).

In this thesis we want to remark that new information exchange channels between consumers have made learning through experience to become, if not only more relevant to make shopping decisions, at least more accessible and common. The technological change has led consumers to be more skeptical about knowledge gained through company advertisements and sales force because of their dubious credibility compared to information gained through an individual's personal network.

#### **2.1.2.2. Consumers motivations to acquire knowledge**

##### ***The needs for affiliation and uniqueness are satisfied while shopping***

There are lots of motivation theories that try to explain what motivates consumers' actions. One of the most popular theories is McClelland's theory of learned needs: need for achievement, need for affiliation, need for power and need for uniqueness. During the shopping process, consumers fulfill the needs for affiliation and uniqueness (Mowen and Minor, 2001).

One of the consequences of this need for affiliation is the operant conditioning, which is the process by which the frequency of occurrence of a particular behavior is modified by the consequences of the behavior (Gangadharbatla, 2008). In other words, when a consumer buys a specific product, the probability that he or she will buy the same product depends on the acceptance of the purchase among acquaintances.

##### ***In social networks and shopping, reinforcement is overwhelmingly positive***

According to Mowen and Minor (2001), there are three types of reinforcers: positive, negative, and secondary reinforcers, which are previously neutral stimuli that acquire reinforcing properties through an association with a primary reinforcer. In the context of fashion shopping, reinforcement will be strictly positive and will happen when the consumer receives positive feedback. In addition, online social networks have improved the capacity to seek and provide this kind of feedback. Whether feedback provided by this channel is influential or not is unclear at the moment; however, we will try to answer it in this thesis by performing a survey among consumers.

### **2.1.2.3. Consumers self-concept**

The consumers' self-concept is a key concept in understanding the implications of social networks for fashion companies. The consumers' self-concept will be extensively used in the 'Discussion' section, where we analyze the current efforts of the fashion companies to attract customers through social networks.

#### *Consumers behave according to their actual and/or social self-concept*

According to Greenwald et al. (2002), the self-concept is the totality of the individual's thoughts and feelings having reference to him or herself as an object. Because people need to behave consistently with their self-concept, this perception of themselves forms part of the basis for their personality. By acting consistently with their self-concept, consumers maintain their self-esteem and gain predictability in their interactions with others. Each individual has more than one self-concept. Whereas the actual self-concept is how a person actually perceives himself, the social self-concept concerns how a person believes that others perceive him (Greenwald et al., 2002). The ideal social self-concept relates to how a person would like others to view him.

#### *Online social networks help individuals to define their social self-concept*

By sharing certain attributes or symbols publicly in online social networks, consumers can build their social self-concepts in a more tangible spectrum. These improvements in how consumers interact are giving more importance to another dimension of the self-concept: the connected self. The connected self-depicts the extent to which people define themselves in terms of other people or groups with whom they are affiliated (Mowen and Minor, 2001).

#### *Groups of people, like social networks users, develop symbols and shared meanings*

Individuals, by linking themselves to symbols, can depict to others their self-concept. Marketing managers take advantage of this when marketing their products: because brand meanings are shared, marketers help to construct the self-concept of consumers (Ligas and Cotte, 1999). Consumers define themselves in part on how they perceive other people's reactions to their actions; this has a tremendous impact in a social network context because people's reactions are more visible, explicit and permanent than in traditional contexts.

### *Fashion products can act as symbols and be bought for their symbolic value*

Sometimes products act as symbols for customers: they buy the products not for their functional benefits, but for their symbolic value. According to Holman (1981), the products that are most likely to be viewed as symbols have three characteristics: they have high visibility, they exhibit variability (not all the consumers must have the financial resources to own it) and they must show personalizability (extent to which a product denotes a stereotypical image of the average user). Fashion is a very clear example of a product that meets the three previous characteristics and therefore can be bought not for its functional value, but for its symbolic value.

## **2.1.3. The decision making process**

*Once consumers have acquired product knowledge during the consumer search process, how do they proceed to make a decision regarding the products they are interested in and what do they take into account for such a decision?*

### *Consumers are heavily influenced when making purchasing decisions*

According to the model by Engel, Blackwell and Miniard (1990), the decision-making process is triggered by three types of influences: environmental, individual and group influences.

#### **2.1.3.1. Environmental influences**

##### *Technological influences have become increasingly important nowadays*

There are several environmental influences that affect a decision making process, such as sociocultural, economic or political influences. However, out of all the environmental influences that affect the decision-making process, technological influences possibly play the most important role when analyzing the behavior of customers with access to modern online social networks.

##### *Consumers in social networks demand better and more personalized information*

By using online social networks, customers are able to receive more tailored and personalized information. Thus, customers raise their expectations in terms of quality, communication and service. Currently, customers are becoming less receptive to major advertising campaigns and are instead seeking information

from alternative channels, such as Google, corporate websites, online forums and online social networks.

### **2.1.3.2. Individual influences**

#### *Individual influence from friends is very strong when making a shopping decision*

The aspects that affect an individual's perception and handling of the decision-making process are personality, perception, learning, motivation and the impact of attitudes (Brassington and Pettitt, 1997). According to our thesis topic, the most important aspect of the model will be how consumers have a selective approach towards the perception.

Due to the increasing amount of available information, consumers tend to be selective in regards to the information they pay attention to. In an online context, consumers generally will pay more attention towards a product review made by a friend than to advertisements that companies display on the Internet. This example is also valid to illustrate how consumers will selectively retain information provided by a friend for much longer than information provided by company advertising.

### **2.1.3.3. Group influences**

#### *Reference groups influence consumers in online social networks*

Mowen and Minor (2001) identify four factors that influence the decision-making process in the group influences framework: social class, culture, reference groups and family. For our study, we will focus on how reference groups shape the decision making process. A reference group is defined as any group, whether formally or informally constituted, to which an individual either belongs or aspires to belong.

Out of the reference groups, we can distinguish three types: membership groups, to which the individual already belongs and therefore influences purchasing decisions -consciously or not-; aspirant groups, to which the individual aims to belong; and dissociative groups, to which the individual does not want to associate with.

#### *Consumers are attracted to brands associated with the groups they identify with*

According to Escalas and Brettman (2003), brands used by reference groups can lead to connections between consumers and brands as they use brands to define and create their self-concepts. The set of associations can then be linked to consumers' mental representations of self as they select brands with meanings congruent with an aspect of their current self-concept or possible self, thus forging a connection between the consumer and the brand. In addition, consumers are naturally attracted to brands associated with their aspirant groups and repelled by brands associated with their dissociative groups. Through online social networks, brands have the opportunity to target the reference groups they are interested in in a more precise manner and consequently position themselves as a part of a reference group that will help consumers to identify with the brand.

## **2.2. Social network behavior model**

While the previous section provided the basis to understand standard consumer behavior while collecting information and making decisions, this section attempts to complement it by analyzing consumer behavior in an online social network environment, which is the focus of our thesis. Specifically, by knowing how consumers behave in social networks, especially when interacting in a social shopping network platform and processing product information, we can determine how user decisions are shaped in this context.

The objective of this section is to provide the reader an explanation of how consumers behave in social networks, how they behave when the social network is focused on shopping, and ultimately, how information is exchanged and processed between users.

### **2.2.1. Motivation to exchange information in social networks**

*The standard buyer behavior model explained how consumers behave when they search for information, but to be able to apply it to a social network environment, the theory needs to be complemented by knowing why consumers are motivated to exchange information in the platform during their search process.*

*Self-esteem is the main motivation for adoption*

Users adopt online social networks for a variety of reasons, all related to establishing a social presence (Cheung, et al., 2011) that will give them the

possibility to perform several tasks online intended to either gain social approval, express their opinions and influence others (Gangadharbatia, 2008). Nevertheless, obtaining approval by others is not the motivation behind the usage of social networks, but rather, the method to realize the objective. Eerily similar to our life offline, satisfaction in the form of collective self-esteem has been found to be a key motivation in online social networks.

In a psychological study of social networking site users performed by Gangadharbatia (2008), collective self-esteem was rated the highest need fulfilled in online interactions, scoring a 5.28 in a scale of 7. Need to belong, need for cognition and self-efficacy were rated significantly lower. Studies by Cheung et al. (2011), Steinfield et al. (2008), Li (2007) and others also place major value on self-esteem as the main trait sought after while maintaining and developing relationships through social networks.

To be accepted and valued by the existing group of friends is a determining factor in constantly updating status, posting pictures and interacting through messages and comments. This behavior increases the collective self-esteem (Gangadharbatia, 2008), which is the self-esteem of the group of friends interacting between each other.

#### *Enjoyment is the main motivation for continued use*

If users begin to use social networks because their impact on collective self-esteem, their continued use is primarily due to enjoyment (Lin and Lu, 2011). Site usefulness is surprisingly not rated nearly as high by users, confirming that people use a social network if they derive satisfaction from it (Lin and Lu, 2011).

Which factors contribute to increased enjoyment? Consumers desire to be entertained, discover new things in an effort to develop their identities (Engel, 2011). Identity, Deighton and Kornfeld (2007) argue, is extremely significant in social networks, as it is constantly being constructed and developed.

#### *Privacy issues are secondary compared to usage benefits*

In accordance with the research cited so far, Krasnova et. al (2010) found that users are primarily motivated to disclose information because of the convenience of maintaining and developing relationships, and the enjoyment achieved through the use of the social network platform. Users, despite their claims, appear unconcerned with privacy risks because the benefits gained from their use of online social networks far outweigh the costs and potential risks (Gross and

Acquisti, 2005).

*The main motivations are enjoyment and perceived usefulness*

According to Cha (2009), there are multiple factors that affect an individual's attitude to shopping on social networking sites. However, when considering all the research done on social networks and social shopping, some factors appear more influential than others. Lin and Lu (2011) suggest that enjoyment is the main reason for continued use of social networking sites, which also applies to a social network with an emphasis on shopping.

Furthermore, Dennis, et al. (2010) discovered that usefulness is the most important factor for online shoppers after enjoyment. This fits with the view of consumers mainly looking for hedonic (Lin and Lu, 2011) and utilitarian (Dennis, et al., 2010) features while using social networks, especially those focused on shopping. Even though both enjoyment (Lin and Lu, 2011) and usefulness (Dennis, et al., 2010) are sought after in social shopping, people have been observed to mainly shop for different reasons depending on the context (Huang, et al., 2011).

Although research has shown that isolated individuals shop online for utilitarian reasons (Huang, et al., 2011), once an individual purchases items in a social environment, the individual is subject to social comparison (Kang and Park-Poaps, 2011) and therefore, is more inclined to focus on the hedonic, enjoyable elements of the experience (Huang, et al., 2011).

*Social support and relationship quality affect intention of future participation*

Performing an empirical study on how social factors affect user's future intention to participate in social commerce, Liang et al., (2011) concluded that both social support and relationship quality are critical and affect user attitude towards social shopping.

If we compare social support to the concept of collective self-esteem as the main motivation for use of social networks developed by Gangadharbatia (2008), and consider the closeness between relationship quality and the concept of relationship building determined by Engel (2011) to be the main activity of social networking users, we can see that the similarity in activity patterns and motivations between users of social networks and users of social shopping networks are extremely close.



### 2.2.1.1. Activity patterns

In this section we explain the activity patterns of users when exchanging information in social networks. We consider important to include the activity patterns in the theoretical framework because it will help the reader to understand the implications that information exchange in social networks have in the empirical results section.

#### *There are significant gender differences in shopping behavior*

Men and women use social shopping sites for different purposes. Research has found out that men typically shop for things such as books and electronic goods, while women, who account for 58% of online purchases, shop for other types of goods, such as clothing and perfumes (Cha, 2009). The fact that women mostly buy hedonic goods whose main attribute is pleasure, suggests that women are hedonic shoppers that put more emphasis on the enjoyment and social aspects of shopping.

#### *Observed behavior is social in nature and highly interactive*

Shopping is a highly social activity, as the behaviors exhibited by shoppers, both online and offline, center on interaction. Expertise sharing, and attention or status seeking are commonly observed behaviors in shopping (Kang and Park-Poaps, 2011). Sharing expertise and information with others allows individuals to express themselves (Kang and Park-Poaps, 2011) and help build personal identity (Deighton and Kornfeld, 2007), and by seeking attention, a sense of power (Kang and Park-Poaps, 2011) and self-esteem (Lin and Lu, 2011) are reached, both of which are important motivators for people.

#### *Shopping is highly susceptible to social comparison and influence by others*

Furthermore, shopping activity patterns show that people engage in social comparison, which makes individuals evaluate themselves in relation to others in two dimensions: abilities and opinions (Kang and Park-Poaps, 2011). The highly visual nature of shopping, as clothing is visible (Kang and Park-Poaps, 2011), makes this activity especially sensitive to the opinions and activities of others (Kang and Park-Poaps, 2011). Following this logic, an individual's purchase of an item will to some degree influence the subsequent activities of others, especially of those closer to the individual.

## **2.2.2. Information exchange process in social networks**

*As explained in the standard buyer behavior model, consumers acquire knowledge as part of their search behavior process and as we have just seen, are highly motivated to exchange the information and knowledge they have gained, but how does this actually happen?*

### **2.2.2.1. Information search**

#### *Online information searches are generally ineffective*

Because the amount of information available for users is beyond high, the process of information has proven difficult for online consumers (Shih, 2009). And precisely because of the level of free, available data for consumers, one predominant belief is that search costs are low and therefore, people should be motivated to search more about the products they are interested (Johnson, et al., 2004).

However, even though there are literally millions of sites with information, people do not search broadly despite seemingly low search costs (Johnson, et al., 2004). In fact, Johnson, et al., (2004) report that 1% of the sites on the web are responsible for 50% of all visits on the Internet.

Consumers, burdened with mountains of data, limit their search to only the most popular sites, which may or may not contain the relevant data consumers are looking for. Furthermore, the information gathered by searches is generic and lacks the personalization that online consumers desire (Shih, 2009).

#### *Users are open to be influenced and ask their networks for information*

Even though research regarding the degree to which users influence is inconclusive, it is a fact that users are open to being influenced by their social network and regularly request information by asking questions to their personal network (Morris, et al., 2010).

#### *50% of searches in social networks request opinions and recommendations*

On Facebook, half the questions asked are subjective in nature, and only 17% of users ask their social networks for factual knowledge (Morris, et al., 2010). 29% of question types are recommendations and 21% are opinion questions (Morris, et

al., 2010). Even though the Internet contains all existing information about virtually every imaginable topic, people still prefer to ask their social networks for information, regardless of the knowledge of the users providing it. Although products and services are asked about, with topics such as restaurants, entertainment, travel and technology being highly discussed, most questions tend to be about family and personal issues that promote interaction to continue the relationship building (Morris, et al., 2010).

#### *Trust in friends is the main reason for asking questions in social networks*

The main motivators for asking questions in online social networks have been found to be trust in friends (Morris, et al., 2010), which are more trusted than online search engines, specialized websites or official product or service information.

#### **2.2.2.2. Information exchange**

##### *Information is asked, but also exchanged, because of trust.*

The reason why a user searches for information in online social networks by asking contacts for opinions or recommendations is the same reason why the user exchanges information after the initial information request: trust. As friends in social networks share experiences and perception of values and needs (Clemons, 2007), information between users is exchanged and highly trusted, regardless of its real value.

##### *There is a correlation between degree of interaction and influence.*

In a study that analyzed the nature and number of exchanged messages between users regarding product recommendations, Guo, et al. (2011), found that as the degree of interaction between users increases, so does the trust and quality of relationships. In the study, as volume message increased, so did trade volume regarding the product (Guo, et al., 2011). Interestingly enough, and as a result of the developed trust through constant interaction, post-trade messages were found to be more common than pre-trade messages (Guo, et al., 2011).

Although the main purpose of the interactions between users was to gather product information, the degree of interaction increased after the product was purchased, as users begin to develop a relationship and see each other as trusted sources of information for future endeavors.

### *If trust is high enough, it can influence consumers to purchase*

As communication becomes stronger between users, so does the likelihood that one user will follow a product recommendation from the other user (Guo, et al., 2011). When trust is developed between users in product recommendations, this can positively influence consumers to purchase products previously recommended by the social network (Hsiao, et al., 2010).

Social networks advertise products and services liked or recommended by friends, in an effort to monetize the service and make a profit. However, the recommendation systems developed by social networks have proved ineffective. Users, because of trust, prefer direct friend recommendations than the recommendation systems commonly used by these networks (Golbeck, 2008).

### *Emotional oriented communication positively affects enjoyment*

Users exchange product information in social shopping networks in two ways. Task oriented information is related to utilitarian value (Huang, et al., 2011) and increases usefulness, and emotional communication is related to hedonic value and affects site enjoyment and experience (Huang, et al., 2011).

Different users place different value on the types of information, depending on consumer interest. But as we have seen, the predominant motivation in social shopping networks is enjoyment (Lin and Lu, 2011). Therefore, emotional communication, not necessarily related to product features, is vital for social shopping users (Huang, et al., 2011)

### *Users desire satisfaction by meeting their socialization and affiliation needs*

Consistent with the presented research on user motivation in social shopping networks, Kang and Park-Poaps (2011) concluded that user satisfaction is achieved in two main ways: by providing cognitive satisfaction and emotional satisfaction.

Cognitive satisfaction is achieved through utilitarian means, but also combining the social aspect of receiving information from friends (Kang and Park-Poaps, 2011) that helps the user in making a purchase and engage in social comparison (Kang and Park-Poaps, 2011) with trusted individuals (Brown, et al., 2009; Cialdini, 1998).

But more importantly, emotional satisfaction is reached by meeting the social needs of affiliation (Kang and Park-Poaps, 2011) and collective self-esteem (Gangadharbatia, 2008). As Schiller, et al. (2011) assert, the significance of the experience is created socially and collectively.

### **2.2.3. Influence of information in social networks**

*The buyer behavior model's decision making process is completed once the consumer has searched, exchanged and processed product information. However, in a social network environment, this process is more complex and needs to take into account how product information exchanged through social networks influences consumer decisions.*

*Social network users are influenced by friend's product recommendations*

Despite the fact that most social network users have stated to not look for product information in such sites and not being especially interested (except young females), Harris and Dennis (2011) have found out that friend recommendations do in fact, influence consumers to engage in purchasing behavior.

The main activity in social networks is relationship building (Li, 2007), by interacting with family and friends. However, when highly trusted contacts recommend a product, users pay attention and value the data (Harris and Dennis, 2011). Although consumers might not actively look for product information, friend influence in social networks can change shopping behavior and produce product purchases by previously uninterested consumers (Harris and Dennis, 2011).

*Some contacts have more influence than others*

The strength of personal ties in online social networks is primarily based on the similarity between users (Brown, et al., 2009). Like Cialdini (1998) states, humans are programmed to trust and be influenced heavily by similar people. Besides the similarity and trust based on friendship, some individuals wield more influence due to factors such as expertise, self-confidence or social status (Subramani and Rajagopalan, 2003).

*There are different types of influence: normative and informational*

Furthermore, there are different types of influence, which can be easily divided in normative and informational influence (Subramani and Rajagopalan, 2003). Incorporating the previous mentioned concepts of relationship building and usefulness as reasons to use online social networks, we can align normative influence with relationship building and informational influence with usefulness.

Therefore, most influence in online social networks is normative, where the recipient behavior is driven by the desire to maintain the relationship (Subramani and Rajagopalan, 2003). On the other hand, users more concerned with the usefulness of the site tend to request and are more influenced by informational influence (Subramani and Rajagopalan, 2003). Considering the social nature of these networks, normative influence is more prevalent in an online environment.

#### *There are different degrees of influence*

Knowing who influences users and which kinds of influence are wielded, the next question to answer becomes how deep the influence wielded over them is. Ventakesh and Morris (2000) have found that the degree of influence is significantly higher for women, which are more sensitive to the opinions of others.

Given that two users share similar tastes and have a friendship that originated offline, the degree of influence increases with the importance for users regarding the topic being discussed. For example, a study by Lewis, et al., (2012) of Facebook interactions revealed that diffusion in music was low between friends for all musical genres, except classical and jazz music, which are unique, highly defining tastes for individuals. They are special for the user, making it receptive to information by similar users. However, this can also be interpreted as users sharing tastes because those tastes made them friends in the beginning, and not necessarily because they are influencing each other (Lewis, et al., 2010).

### **2.3. Hypotheses formulation model**

Our hypotheses formulation model will consists on presenting, for each of the hypotheses we formulate, the theoretical insights described both in the standard behavior model and the social network behavior model. By connecting the most important parts of both sections, we will formulate the hypotheses with a solid theoretical background.

### 2.3.1. Hypothesis 1

#### Standard behavior model

As we have seen in the standard buyer behavior model (word-of-mouth communication section - 2.1.1.3), both the sender and the receiver have intrinsic motivation to exchange information in a word-of-mouth context. The receiver is motivated to use word-of-mouth because he considers the information received through this channel is more valuable and reliable than the information received through other channels, and the sender has an intrinsic motivation to share because influencing others provides a feeling to the subject of power and prestige (Chu and Kim, 2011).

#### Social network behavior model

According to Gangadharbatia (2008), individual self-esteem is the main motivation for adoption of the social networks. On the other hand, collective self-esteem was rated the highest need fulfilled in online interactions. Combining both facts, Gangadharbatia showed in his research that to be accepted and valued by the existing group of acquaintances, it is a determining factor to constantly exchange information within the group. Every member of a community has an incentive to share information with other members of the community.

#### Formulation of the hypothesis

In the standard behavior model, we saw that both sender and receiver have an intrinsic motivation to share information. This line of thinking is reinforced by the social network behavior model, in which individual and collective self-esteem are factors to exchange information with the group with the purpose to be accepted.

Given this insights from the theoretical framework, we want to demonstrate that the information exchange within a group (in our thesis, fashion consumers) is a reciprocal process. Therefore, we formulated the following hypothesis:

**Hypothesis 1: sharing information between consumers in fashion shopping is a reciprocal process.**

### 2.3.2. Hypothesis 2

#### Standard behavior model framework

In the consumers motivations section (2.1.2.2), we saw that there are three types of reinforcers: positive, negative, and secondary reinforcers, which are neutral stimuli that acquire reinforcing properties through an association with a primary reinforcer (Mowen and Minor, 2001). In the context of fashion shopping, reinforcement will be strictly positive and will happen when the consumer receives positive feedback. It is understandable then, that fashion consumers will actively seek this positive reinforcement within their social environment through sharing what they like and what they buy.

#### Social network behavior model framework

According to Kang and Park-Poaps (2011), user satisfaction is achieved in two main ways: by providing cognitive satisfaction and by providing emotional satisfaction. Cognitive satisfaction can be achieved combining the social aspect of receiving information from friends (Kang and Park-Poaps, 2011) and engaging in social comparison (Kang and Park-Poaps, 2011) with trusted individuals (Brown, et al., 2009; Cialdini, 1998). On the other hand, emotional satisfaction is reached by meeting the social needs of affiliation (Kang and Park-Poaps, 2011) and collective self-esteem (Gangadharbatia, 2008).

The observed behavior in social shopping networks is highly interactive. As a matter of the fact, according to Kang and Park-Poaps (2011), sharing expertise and seeking attention and status are commonly observed behaviors in shopping. Sharing expertise and information with others allows individuals to express themselves (Kang and Park-Poaps, 2011) and help build personal identity (Deighton and Kornfeld, 2007), and by seeking attention, a sense of affiliation (Kang and Park-Poaps, 2011) and self-esteem (Lin and Lu, 2011) are reached.

#### Formulation of the hypothesis

According to the standard behavior model, consumers seek positive reinforcement after shopping. This positive reinforcement is twofold: cognitive satisfaction and emotional satisfaction. In the context of social networks, individuals achieve cognitive satisfaction by searching information within their networks, and achieve emotional satisfaction by sharing information with their networks as well. Thus, in order to test if the theory is replicated in the reality, we formulate the following hypothesis:

**Hypothesis 2: the most active consumers in terms of information search are willing to proactively share what they buy as well.**



### 2.3.3. Hypothesis 3

#### Standard behavior model framework

Previous research papers unanimously agree that referrals from acquaintances influence the shopping decisions of consumers in a greater extent than what advertising and other companies' sources do. As a matter of the fact, Trusov, et al. (2009) state that referrals from acquaintances account between three and eight times as many purchases as advertising did in the short run, and up to twenty times in the long run.

In addition, according to Mowen and Minor (2001), the improvements in consumers' interaction are making more important another dimension of the self-concept: the connected self. The connected self-depicts the extent to which people define themselves in terms of other people or groups opinions with whom they are affiliated.

#### Social network behavior model framework

With the high amount of time people spend online, which is becoming dominated by social networks, the personal representation in the networks is beginning to define who we are. As a matter of the fact, one of the motivations for individuals perform several tasks online is to gain public social approval (Gangadharbatia, 2008). Consumers achieve the social approval after adjusting their decisions with the normative influence their networks have on them (Subramani and Rajagopalan, 2003).

According to Hsiao et al., (2010), when trust is developed between users in product recommendations, this can influence consumers to purchase products previously recommended by their social networks. Harris and Dennis (2011) go further and defend that friend recommendations actually do influence consumers to engage in purchasing behavior.

#### Formulation of the hypothesis

Finally, in the last hypothesis test we want to ascertain what both the standard and the social network behavior models defend: the acquaintances opinions influence consumers' shopping decisions. Thus, the last hypothesis formulation will be the following:

**Hypothesis 3: consumers who know what their contacts buy or like acknowledge that such information could influence what they will buy.**

### 2.3.1. Hypotheses formulation model representation

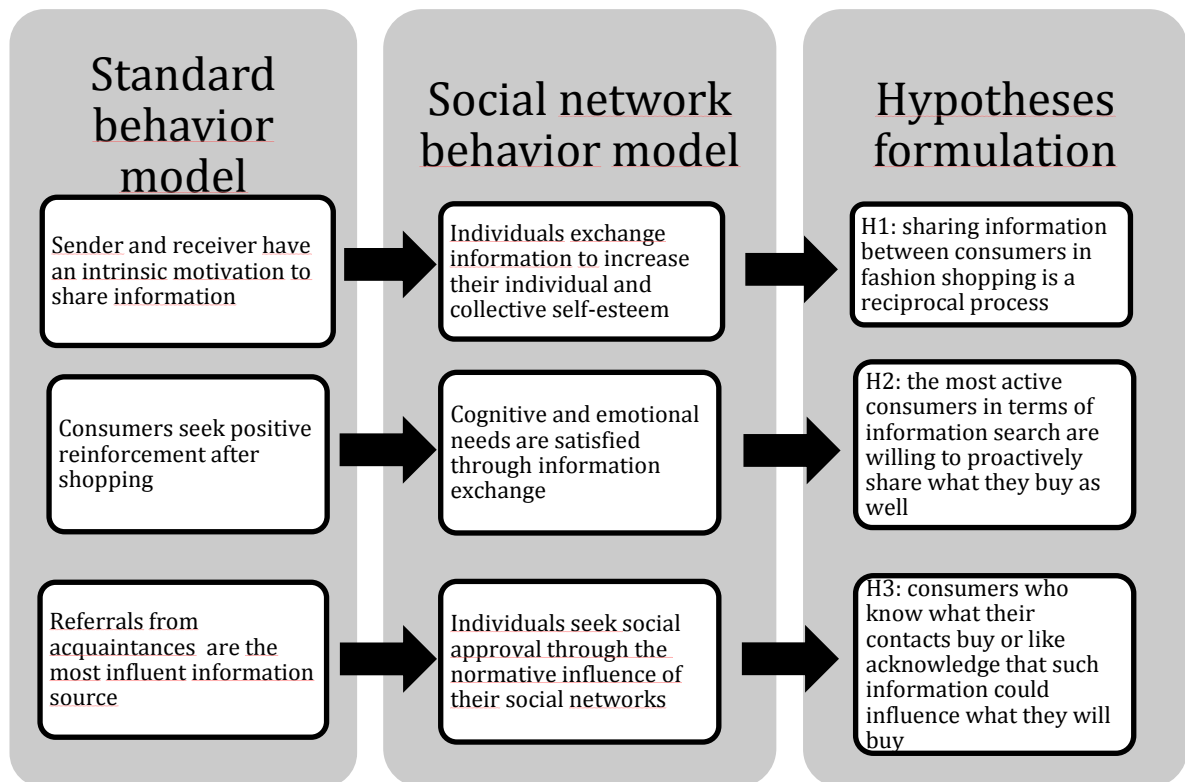


Figure 3 – Hypotheses formulation model

### 3. Methodology

*In this section we will describe how the survey and the interviews with fashion managers were designed, targeted and how they will be analyzed in the following sections. We will also discuss the purpose, scope and limitations of the survey and interviews.*

#### 3.1. Research question

The objective of our research question is to determine how the exchange of information between consumers in online social networks shapes and influences shopping decisions in the fashion industry. To do this, the geographic focus is limited to Western Europe and North America. We decided to focus on these two regions for two reasons: first, because usage of online social networks is significantly higher in these regions, where their penetration is more extended than in the rest of the world, and secondly, because the fashion market is much more developed and customers are therefore more prone to search for product information actively than in other regions (Priest, 2005).

Although our research could have been limited to a smaller geographical region, such as the city of Stockholm, Sweden, for example, we have decided that due to the lack of academic research on the topic of social networks and product information exchange, a more general study that considers users from the regions that together represent the majority of users and gives a better view on this largely unexplored but highly relevant phenomenon is more useful for an exploratory study on the topic, such as this work.

In order to answer the research question, three hypotheses will be tested. As we have explained in the previous section in the Hypotheses Formulation Model, the hypotheses are the following:

Hypothesis 1: the process of sharing information between consumers is reciprocal.

In other words, the amount of information any given consumer shares with his network will be proportional to the amount of information the individual receives from his environment.

Hypothesis 2: the amount of information consumers share with their networks is proportional to the interest consumers have on what their fellow friends and acquaintances like or buy.

We want to prove that in the case of shopping information distributed through online social networks, there are weak and strong nodes of information diffusion. Therefore, those consumers with a high level of interest will be strong nodes; and those consumers with little interest will be weak nodes of communication.

Hypothesis 3: consumers who are interested in what their friends buy and like acknowledge that this information will actually influence their shopping decisions in fashion.

By testing this hypothesis we want to state that the exchange of information between consumers actually triggers the decision of buying a specific product or not.

To test the hypotheses, an online survey was designed and distributed among fashion consumers who use social networks in Western Europe and North America. With the data collected in the surveys, the authors will run one simple linear regression for each of the hypotheses.

In addition to the online survey, we considered necessary to perform interviews with fashion managers for the discussion section. Given that the field of study is recent, there is little or no reliable information available about what is the current state in the transformation of the communication channels between the fashion firms and their customers; therefore we decided to obtain it firsthand.

Under this approach, the bottom-line of the discussion section is to analyze how fashion firms can improve their communication and marketing efforts with the young adults' customer segment, one of the most important customer segments in the fashion market. We believe that this could not be achieved satisfactorily without collecting information directly from the fashion companies.

## **3.2. Initial work**

### **3.2.1. Choice of the research subject**

The inspiration to research how consumers make their shopping decisions in the fashion market came after reading the Gucci Group Business Case by the Harvard Business School (2001). Among other things, this business case illustrates the paradox of fashion companies' advertisement efforts being focused almost exclusively on the brand instead of the product. This is contradictory with the fact that the most customers make careful shopping decisions with the information they possess -such as what clothes their friends wear and what the latest fashion trends are- and furthermore, actively look for the product information that companies choose not to focus on in their advertisement efforts. According to the business case, the reason why customers go through a thoughtful shopping decision making process is the high level of involvement they have with fashion products compared with other types of products. After reading this business case, the authors agreed that there exists an information gap in the fashion market between what consumers need and what fashion companies actually provide.

In order to narrow the research, instead of analyzing all the channels fashion consumers use to gather information, we decided to focus on the influence of social networks in shopping decisions made by consumers in the fashion market. The reason why we decided to analyze the social networks as an information diffusion channel is their recent and sharp emergence as the main communication instrument in the Internet.

### **3.2.1. Relevance of the field of study**

Once we had chosen the subject of our research, we had to decide whether the field of study was relevant enough for a master thesis in management. As we explain in the introduction section, nowadays more than 1,2 billion people in the world actively use at least one social network. On average, social media users spend one out of every seven minutes in social networks. In the past few years, social media has become the most common communication tool for teenagers and young adults. This is especially relevant if we consider that one of the most important customer segments for fashion firms (and several other industries) is the young adults segment, whose age bracket is between 18 and 30 years old (Birtwistle et al., 1998).

However, despite the relevance social media has and its potential implication for business management, few papers and articles have been written with an academic approach. The main reason is that the emergence of social media is a very recent phenomenon. Consequently, we decided that given the implications of social media for business management practices, its direct applicability to the fashion market and the lack of academic works on the subject, this field of study was relevant enough for a master thesis in management.

### **3.3. Target groups**

#### **3.3.1. Online survey**

In order to gather data from fashion consumers and test the hypotheses, the authors decided to design and distribute an online survey (see the questionnaire in Appendix 1).

The ideal respondent of the survey is a regular or heavy user of social networks with an inclination to be interested in the fashion industry and who buys fashion articles at least once a month. As explained in the research question section, the geographic scope of the survey is Western Europe and North America.

Considering that the majority of online social network users are typically young students, as well as the overwhelming majority of heavy users, the survey was aimed at people between 18 and 30 years of age. Furthermore, since the focus of the study is on the fashion industry and females are considerably more interested and actively involved in fashion than males, the majority of people we aimed to answer the survey were female.

The distribution of the online survey was done among our personal network in its first and second degrees (by second degree we mean the contacts of our contacts). We particularly sought the survey to be filled by individuals with the profile we described before. The distribution channel was three fold: online social networks, email and personal word-of-mouth.

#### **3.3.2. Interviews with social media and marketing managers**

The interviews aim to understand the strategies used by the fashion industry to influence online consumers in social networks, as well as their perception of the phenomenon. Therefore, the logical sources of this information are the firms. As a result, interviews have been conducted with executives of three fashion firms: Rikard Frost, head of e-commerce and digital communications at Acne Studios (Stockholm, Sweden); Jonas Nyvang, marketing and communication manager at Björn Borg (Stockholm, Sweden); and Sonia Corral, marketing and social media manager at Tuc Tuc World (La Rioja, Spain).

To select which marketing and communications managers to interview, we wanted to perform one interview for each of the most important segments in fashion retail

to have a comprehensive view of their view and usage of online social networks in communicating with consumers. As such, we chose a company focusing on fashion for males (Björn Börg), a company focusing on fashion for women (Acne Studios) and a company focusing on fashion for children (Tuc Tuc World).

In the discussion section, we will contrast the findings we obtained through our research with the current implementation of social media marketing strategies by fashion firms. With the information gathered in the interviews, we aim to be in an objective and unbiased position to evaluate the level of implementation and the capacity for improvement available for marketing strategies based on social media communication with customers. For this reason, we designed a standard questionnaire for the interviews (see Appendix 3). However, depending on each interview, we adapted the questions to the answers of the interviewees.

### **3.4. Nature of logical reasoning used**

Whereas inductive reasoning is based on reaching conclusions through observation, deductive reasoning is based on making generalizations about observable facts. As the essence of our thesis is an exploratory study about an understudied and nascent field of social networking, observable facts are very few, if any, which makes reasoning impossible in the worst of cases, and difficult and severely limited at best.

On the other hand, a survey with questions and answers aimed at producing data to be used inductively works much better for the purpose of the study. Since existing research on social networks is limited due to the young age of the phenomenon, it is simply not possible to look for enough facts accepted as truths that will help achieve a significant contribution to the field. The same reasoning applies when conducting personal interviews with fashion managers.

Moreover, since social networks are still in their infancy, they are still in the process of changing and developing, which makes them much harder to study and come up with generalized, widely accepted conclusions about them. Factors such as the social and legal future environments have the potential to greatly alter the landscape and essence of still evolving social networks.

However, what is possible is to determine current trends and common observable behavior that due to the nature of their existence and development can become the basis of the theory of communication exchange in social networks, with a focus on fashion products.

For all the reasons previously described, the areas of interest in the survey and the interviews, as well as the questions asked, are designed with an inductive focus, in order to produce data to be observed and analyzed as such.

### **3.5. Conducting a quantitative or qualitative survey**

Although a study of this nature is exploratory, and as such, a qualitative study might seem more appropriate, to test the hypotheses we have done the opposite, which is to measure and analyze the information quantitatively. The reasoning behind it that even though the information about consumer behavior and information exchange in online social networks is relatively scarce, ample qualitative studies have been made on the subject, such as *Knowledge-Sharing and Influence in Online Social Networks via Viral Marketing* by Subramani and Rajagopalan (2003). Therefore, a more significant contribution can be made to the field with a quantitative analysis that complements and adds to the previous studies and simultaneously attempts to measure the degree to which online social network users interact and influence each other in the context of fashion shopping decision making processes. In addition, three in depth, qualitative interviews with fashion executives have been included in the research to measure against, and hopefully support, our quantitative survey.

### **3.6. Creation process**

#### **3.6.1. Online survey**

Having in mind the research question, which is to analyze the degree to which social network users are influenced by their peers in shaping their shopping decisions in fashion, the survey has been designed to take into account four factors that based on our research, when analyzed together, explain the behavior of consumers within the online environment of social networks. The four factors we have tested are:

- *Motivations and uses of online social networks*: Previous research has concluded that enjoyment is the main motivator for continued use (Lin & Lu, 2011) and that identity is built through interaction in such an environment (Dreighton & Kornfeld, 2007). As social networks are



constantly evolving, we want to test if this holds true, especially in a fashion-oriented platform.

- *Consumer behavior in the search, use and perception of online information, with emphasis on the fashion industry:* Consumers are increasingly asking their social networks for product information (Morris, et al., 2010). Whether this is also the case and the degree to which it happens in the fashion industry will be explored.
- *Consumer behavior in the exchange of information about fashion products in a social network environment:* Research has shown that consumers, motivated by self-esteem (Lin & Lu, 2011), are willing to share expertise and seek attention and status (Kang & Park-Poaps, 2011). We want to test how this behavior, mostly observed offline, is expressed in an online social network environment.
- *Consumer behavior (shopping habits) after the process of collecting online information:* How influential is information provided by friends in social networks? Ventakesh and Morris (2000) found that women are highly influenced, and Subramani and Rajagopalan (2003) showed that people accept to be influenced to maintain a relationship. We want to study this phenomenon focused on fashion product information within online social networks.

In order to explain these four factors with clarity, we divided the questionnaire in four sections (see Appendix 1):

- *Social networks motivations and usage:* the questions in this section aim to gather information about the uses of social networks, as well as the motivations behind it. In order to do this, we asked the respondents which social networks they used, how often, for how long, and for what purpose, giving us a general view about how consumers utilize online social networks. This section explains the first of the four factors that were tested, with the objective of validating previous research on a still rapidly evolving subject.
- *Information search and shopping habits:* the questions of this section are based on information channels respondents use, including the level of trust and influence that respondents associate with each channel, among which social networks were included. With a particular focus on information search about fashion products, consumer behavior in shopping for such products, including frequency of purchases and channels used, this section helps to explain the second and fourth factors that were tested. Previous research, while giving a good overview, has not focused on a specific industry such as fashion within social networks.
- *Influence of social networks on shopping decisions:* in this section we ask the respondents the frequency with which they share fashion products

information with their friends via social networks, the interest they have on what their networks like or buy, and the level of influence such information has on their shopping decisions. This section, which is at the core of our research question, explains the second, third and fourth factors being tested. Because of the section's relevance for the thesis, most of the variables used in the hypotheses tests are measured in this section of the questionnaire.

- Demographics: in this section, general questions to categorize the respondents and find general trends were asked, such as gender, age, country of origin, and country of residence.

All questions contained in the survey are close-ended questions with several answer alternatives, as this study attempts to be quantitative. Moreover, when relevant, respondents are asked to rate their answers using a seven-point scale that measures the degree to which they agree or identify with the information or statements provided to them.

The survey has been created with the online tool Qualtrics, available to be used by the students of the Stockholm School of Economics. The survey was selectively sent to individuals according to the criteria explained in the target group section.

### **3.6.2. Personal interviews with fashion managers**

Personal interviews have a tendency to be mostly qualitative, and this is not the exception. To complement the quantitative gathering of the survey, the interviews consist of mostly open-ended questions where the respondents are allowed to elaborate extensively on their opinions. Based on the answers given, the analysis attempts to connect the findings with the quantitative answers of social network users obtained through the survey, and ultimately, find new and relevant implications for management.

The primary objective of the interviews with fashion managers is to gather firsthand information about how fashion firms have reacted and adapted to online social networks as a new source of product information search and exchange. Additionally, we wanted to explore how the use of social networks as a powerful source of information has created new demands from customers, how companies are coping with this change, and how they believe this phenomenon will continue to develop in the future. The questionnaire of the interviews with the managers was developed according to this main objective.

While the research topic of this thesis focuses on how product information exchange in social networks ultimately shapes shopping decisions in the fashion

industry, and as such, the quantitative survey and the linear regressions produced with the obtained data measure this, the interviews with managers have a different purpose. Specifically, to evaluate and determine the implications for management as a result of the product information exchange in online social networks.

The questionnaire is divided in three sections (see Appendix 3):

- Social networks: in the first section of the questionnaire, we ask the manager for her or his personal opinion on the motivations behind the use of social networks, in order to compare it with respondents answers from the quantitative survey and see how well consumer motivations are understood by fashion firms. Related factors, such as user engagement and consumer satisfaction with the social network interaction between them and fashion companies, are also discussed. As a result of this, the role of social networks as a source of information for fashion consumers is also discussed in this section.
- Company interaction with customers through social networks: in this section we want to obtain information about the current interaction that fashion brands have with their customers when using social networks as a product information channel, to determine if companies are using these channels correctly (based on consumer preferences obtained in the quantitative survey). As such, this section deals with customer attraction and retention, the elements of an enjoyable user experience in social networks, motivations for firms behind their interaction with consumers in the platform, and results obtained with their social network strategy.
- The future of social networks and fashion: in the last part of the questionnaire we ask the fashion managers for their opinions on improving their social network interaction with consumers. To close the interview, we ask the interviewees about the potential and future of social networks as a primary source of information for fashion consumers.

## **3.7. Concerns and limitations**

### **3.7.1. Survey**

#### **3.7.1.1. Survey distribution**

The most serious concern encountered in the survey is that it was distributed to a small sample of people in more or less the same network. Specifically, the vast majority of respondents are business school students between the ages of 23 and 27. Many respondents are Stockholm School of Economics students from various Western European nationalities. Many of the rest of the respondents are from a variety of business schools across Western Europe and North America as well. A very small proportion of students do not fit the profiles previously described. Since most respondents can be assumed to have similar interests due to their academic and professional similarity, the findings can have a strong tendency to also be similar. However, since the thesis focuses on fashion product information exchange in social networks, the distribution seems to be adequate, as social network users with a heavy interest in fashion are typically business school students from Western Europe and North America.

#### **3.7.1.2. Language proficiency**

The surveys are in English, which is dominated at a fluent or native level by the respondents. The only concern in this area stems from the fact that because the surveys will be answered electronically, any question that is not worded in a perfectly clear way may be misunderstood, which alters the results. In order to avoid this type of problem, before launching the survey the authors asked some respondents with different profiles for feedback in order to make sure that the questionnaire was easy to understand by as many respondents as possible.

#### **3.7.1.3. Ethical implications**

At the time the survey was distributed, the authors of the thesis were considering to implement all the information and insights obtained during the research of this master thesis in an entrepreneurial project. One of the reasons why the authors considered that it would be appropriate to make this thesis part of an entrepreneurial project is that one of the main objectives of the management specialization in the master program is to promote entrepreneurship as an alternative career path for SSE graduates.

Because of this entrepreneurial drive, the survey demands more information than what would have been strictly necessary for quantifying the variables and testing the hypotheses. Information that has not been used for the hypotheses testing and collected during the survey distribution includes describing where users search information about fashion on the Internet and the level of trust they have on these information sources. We understand that there might be ethical implications in the fact of using information given by the respondents on the context of an academic

work for entrepreneurial purposes. However, at the time of the survey conception the possibility of carrying an entrepreneurial project was merely an idea and the idea was not executed at all. Furthermore, such additional information, while not tested in the hypotheses, provides some elements for the discussion section, which explores the implications the social network phenomenon has for management.

### **3.7.2. Interviews**

#### **3.7.2.1. Company image**

In the case of fashion industry managers or executives, the fact that the interviewee works for a company that has a corporate image to maintain and strategies that cannot be provided to the public strongly works against obtaining honest and genuine answers. The strategy used to minimize it was to clearly and periodically express the academic nature of the interview and to give the anonymity option to the interviewee.

For this reason, the authors avoided to interview managers of publicly traded companies because of the tight restrictions in the release of company related information. On the other hand, the authors selected companies that are large enough to have developed marketing and customer relationship strategies beyond the elemental ones. More precisely, the authors selected companies that were using social media in their relationships with customers. According to these criteria, the authors selected three mid-sized companies with a number of employees ranging between 50 and 500: Acne Studios, Björn Borg and Tuc Tuc World.

#### **3.7.2.2. Non-verbal communication**

As the thesis authors are two, during the interviews, one of the authors focused on asking questions and analyzing non-verbal cues and behavior within the context of the questions being asked. Depending on the responses and on the non-verbal communication, the interviewer was entitled to adapt the questionnaire to the interview development. The other author focused on writing down the responses and asking additional questions in order to clarify the most important concepts.

Although it is not possible to include notes of the non-verbal communication behavior exhibited by the interviewees, the fact that the questionnaire was adapted in real time to each interviewee shows that such behavior was noticed and taken into account.

### **3.7.2.3. Verbal communication**

Words and sentences can be interpreted in many ways, so there is always a chance that the meaning gets lost due to misunderstanding from either of the parts, the interviewer or the interviewee. To minimize this, after asking every question, the interviewees were asked if there was any need to clarify or repeat the question. And after the answer was given, unless the answer was close ended, interviewees were asked to elaborate on the answer to make sure the perceived meaning was the correct one.

## **3.8. Timeline**

### **3.8.1. Student surveys**

The survey launch date was April 8th, 2012; and the survey was closed on June 30th, 2012. We considered important the time frame to be shorter than 3 months because, given the fast changes related to online social networks, answers in different time periods could not be properly comparable to each other.

### **3.8.2. Interviews**

The interviews, which were selected based on interviewing companies that covered the whole spectrum of the fashion industry (men, women and children focused), were performed on the following dates:

- May 11th: Rikard Frost, head of e-commerce and digital communications at Acne Studios.
- June 7th: Jonas Nyvang, marketing and communications manager at Björn Borg.
- August 20th: Sonia Corral, social media manager at Tuc Tuc World.

## **3.9. Hypotheses test methodology**

### 3.9.1. Variables

In this section we will describe the dependent and independent variables used for each of the formulated hypotheses.

#### 3.9.1.1. Variables in Hypothesis 1

**Hypothesis 1: sharing information between consumers in fashion shopping is a reciprocal process.**

##### Independent variable

The independent variable for testing this hypothesis is the degree to which the respondent's contacts share information about the fashion items they buy.

In the survey questionnaire (see Appendix 1) the question allocated for measuring this variable is #15: *do your friends actively share online the fashion articles they buy or are interested in?*

The question is formulated so the respondent has to rate, in a scale of 1 to 7, the degree to which her or his contacts share information. Given that it is not possible to track the extent to which the respondent's contacts share their purchases, we believe that a relative scale with 7 levels is the most appropriate measurement tool for this variable. We have concluded that this variable is independent because it is not influenced by any of the other considered variables in this study.

##### Dependent variable

The dependent variable for testing this hypothesis is the degree to which the respondent is willing to share information about the fashion items she or he buys.

In the survey we ask the following (see question 16 in Appendix 1): *Would you actively share with your friends online the fashion articles that you buy and that you are interested in?*

We decided to ask the respondent to rate her or his response in a scale from 1 to 7, in which 1 means "strongly disagree" and 7 means "strongly agree", so we could properly analyze the reciprocity between the amount of information the respondent's contacts share and the degree of information that the respondent is willing to share.

It is important to remark that the question that contains the dependent variable was formulated in a conditional verbal tense immediately after the question that

attempted to measure the independent variable. The purpose is to create a mental association for the respondent between both questions, as it specifically suggests to the respondent that the answer to the former question influences the answer to the latter question.

According to the theory we have reviewed in the theoretical framework section, the extent to which consumers share information with their contacts in social networks depends on the level of information they receive through this channel from their contacts and the interest they have on such information. As a result, we consider this variable to be dependent of the previous variable.

### 3.9.1.2. Variables in Hypothesis 2

**Hypothesis 2: the most active consumers in terms of information search are willing to proactively share what they buy as well.**

#### Independent variable

Our objective with this hypothesis is to test, in the context of a study of the fashion market, the theory that demonstrates that in social networks communication there are weak and strong nodes of communication. According to the descriptive results (section 4.1), there are hyperactive nodes of information that, in addition to searching intensely for information, disseminate the information they gather with a similar intensity. The trigger in gathering and disseminating this information is the interest the agents have in the information itself (Mislove, et al., 2007). For this purpose, we chose the extent to which consumers are interested in what their friends buy as the independent variable.

In order to measure this we asked the following question in the survey (question number 17, see Appendix 1): *Are you interested in the fashion articles your friends buy or are interested in?* Again, in order to facilitate the measurement and analysis of this variable, we asked the respondents to rate their interest on a scale ranging from 1 to 7.

#### Dependent variable

As in the first hypothesis and its subsequent linear regression, the dependent variable is the degree to which the respondent is willing to share information about the fashion items she or he buys.

The reader of this paper might be asking why the authors have not decided to formulate a multiple linear regression analysis with the previously two



independent variables combined with the single dependent variable. The reason is that in the empirical results and analysis section we want to analyze if each of the hypotheses, which are supported by the theory that has been developed so far, are true or false. In order to keep this simple and clear, we have decided to perform two simple linear regressions instead.

### 3.9.1.3. Variables in Hypothesis 3

**Hypothesis 3: the consumers who know what their contacts buy or like acknowledge that such information could influence what they will buy.**

#### Independent variable

As in the previous hypothesis, we consider the interest consumers have on what their friends buy or like as the independent variable. In this particular hypothesis we want to test if the affinity between friends is relevant when it comes to making shopping decisions in the fashion market.

#### Dependent variable

The dependent variable in this hypothesis is the degree to which consumers think that what their networks buy and like will influence their own purchases.

We understand that when it comes to measuring this kind of behavior there will be a hypothetical bias, as some of the respondents might argue that their shopping decisions are independent of what their networks think or do; however, in a real situation, this influence might be more powerful than what they perceive. The opposite effect is possible as well, but to a much lower extent (Cummings et al. 1995).

In order to measure the degree to which people are influenced by their networks in the shopping decisions they make, we asked the following question in our survey: *If your friends would share online with you what they buy and are interested in, would it significantly influence your shopping habits and decisions?* (See question number 18, Appendix 1).

We asked the respondents to rate their perception on a scale ranging from 1 to 7.

### 3.9.2. OLS regression model

To test each of the three hypotheses an OLS regression was made. Given that in each of the hypotheses tests there is one single independent variable, the tests consisted on three simple linear models. The simple linear model is expressed as follows:

$$Y_i = \beta_0 + \beta_1 X_i + \varepsilon_i$$

The parameters  $(\beta_0, \beta_1)$  are given by the following formulas:

$$\beta_0 = Y_i - \beta_1 X_i$$
$$\beta_1 = \frac{\sum_{i=1}^n (X_i - \bar{X})(Y_i - \bar{Y})}{\sum_{i=1}^n (X_i - \bar{X})^2} = \frac{cov(X_i, Y_i)}{var(X_i)}$$

In the first parameter equation ( $\beta_0$ ) there is no disturbance term ( $\varepsilon_i$ ) because we assume the disturbance term to have a mean equal to zero.

### 3.9.3. Regression fitness

In order to judge if a regression is fit enough in order to accept the results, we will consider the value of the R-square and we will perform an F-test as well.

#### 3.9.3.1. R-square

With the value of the R-square we want to determine the proportion of the value of the dependent variable that is explained by our model.

The value of the dependent variable in a simple linear regression model will be explained as follows:

$$\sum_{i=1}^n (Y_i - \bar{Y})^2 = \sum_{i=1}^n (\hat{Y}_i - \bar{Y})^2 + \sum_{i=1}^n \varepsilon_i^2$$

Thus, we have the decomposition:

$$TSS = ESS + RSS$$

Where,

TSS: Total sum of squares

ESS: Explained sum of squares

RSS: Residual sum of squares

The value of R-square will be the following:

$$R^2 = \frac{ESS}{TSS} = \frac{\sum_{i=1}^n (\hat{Y}_i - \bar{Y})^2}{\sum_{i=1}^n (Y_i - \bar{Y})^2}$$

In a simple linear model, the greater the value of R-square is, the more fit the model will be to explain the variation of the dependent variable.

According to Dougherty (2011), the standard acceptable value of the R-square in a social or behavioral science study is lower than in physical science study. This study belongs to the social science category, thus we expect an R-square value within the range 0,25-0,50. It is exceptional to find regressions with an R-square value above 0,50 in economic research.

### 3.9.3.2. F-test

In order to have assurance that the R-square does not prove the fitness of the regression by coincidence, we will also perform an F-test for each of the hypotheses tests.

The F-value will be determined as follows:

$$F = \frac{R^2 / (k - 1)}{(1 - R^2) / (n - k)}$$

In the equation  $k$  is the number of parameters in the regression equation. Given that in our regression models there will be two parameters, the value of F will be determined as follows:

$$F = \frac{R^2}{(1 - R^2) / (n - 2)}$$

Given the value of F and the degrees of freedom, it will be determined whether to reject or fail the fitness showed by the R-square. However, instead of doing this procedure manually, we will rely on the STATA output for each of the regressions.

### **3.9.3.3. P value**

In the next section, we will analyze the p value obtained in the simple linear regressions. The p value represents the probability of observing a test statistic as extreme or more extreme than the one that actually has been observed (Dougherty, 2011). In other words, it is the probability that the null hypothesis will be rejected for a random component. The lower the p value is, the more assured we can be that the results of the hypothesis we are testing are reliable.

In economic research an acceptable rejection level is 5% or less; that is a p value equal or lower than 0,05 (Dougherty, 2011).

## 4. Empirical results and analysis

*As we explained in the methodology section, in order to test the hypotheses we have performed three separate simple linear regressions. In this section we will describe the empirical results we obtained, the fitness of the models and the consequences of the results for our field of study.*

### 4.1 Descriptive results

In this part of the empirical results section we want to summarize the most important insights gained from our theoretical research.

#### 4.1.1 General description

##### Young consumers are the main users

Besides becoming widely used by Internet users on a global basis, and as a result, spreading information more quickly than traditional advertising, one of the most interesting features of online social networks is its audience. In contrast with other forms of media, online social networks are primarily utilized by a very young audience, with people in their twenties and thirties being the main users (Cha, 2009).

##### Older consumers are beginning to adopt social networks

Being a novel service, it was only natural for online social networks to be initially adapted by the younger population. However, its use is becoming more widespread among the rest of the population. In fact, users over 35 years of age are the fastest growing demographic (Morris, et al., 2010).

This can be illustrated by the fact that online social networks are used by 74% of teenagers and 73% of young adults (Lenhart et al., 2010), and by 39% of people in their thirties (Lenhart et al., 2010), with this last number growing fast. Moreover, online social networks have become so popular that the majority of users have accounts in more than one social networking site (Lenhart et al., 2010).

##### Time spent online in social networks is very high

60% of teenagers and 67% of young adults visit social networking sites at least once a day (Li, 2007). Usage of online social networks is extremely high, as one out of every seven minutes spent online is spent in such sites (The New Age, 2011). Probably the main reason for monopolizing users online activities is the nature of such activities, which center around interacting with friends and family (Li, 2007).

#### *Social network usage is dominated by women*

Regarding gender differences, online social network usage is dominated by women (Dennis, et al., 2010). This does not necessarily mean that the difference between men and women is large. Rather, it means that while users of both genders have adopted the service as an everyday activity, women spend significantly more time in social networks, use them more often, and represent more than half of the user population.

#### *Social network contacts are real world contacts*

Because the interaction is developed online, the online social network of a user can encompass the totality of the real network. That is, actual offline contacts can be easily transferred online. If in the non-virtual world, an average person regularly interacts with a handful of close contacts, online social network offer the possibility to contact a much wider part of the network. Consequently, online social networks are typically large collections of weak ties (Steinfeld, 2008). It is also interesting to note that although online social networks allow users to add every contact met offline, regardless of closeness, most people's contacts have a tendency to be local (Haythornwaite, 2001).

### **4.1.2 User composition**

#### *Social networks are held together by the most active users*

To categorize more than a billion users is no easy task, but studies on user composition in online social networks by Mislove, et al. (2007) and Kumar, et al. (2006), provide valuable insights. These networks are basically formed by multiple low degree users but held together by a small number (approximately 10% of user population) of highly influential and active users, or high degree nodes (Mislove, et al., 2007).

#### Most users are connected through the highly active members

Keeping in mind the important role of the high degree nodes, the rest of the users can be classified in three groups: the existing but completely inactive members, the giant component in which the high degree nodes and their contacts interact, and members of isolated communities that are not connected through high degree nodes (Kumar, et al., 2006).

Due to the low degree of separation between users (Howard, 2008), information tends to disseminate rather quickly thanks to the highly active users that hold and mold network activity (Mislove, et al., 2007). The implications for business firms are clear. As a small percentage of users influence the rest of the network and dictate the information being dispersed through the network, the identification of such users is of extreme importance in effectively disseminating a message.

Nevertheless, even if an active user does not begin to propagate a message or a piece of information, it is highly likely that a less active contact will. As such, once the message reaches the active user, it will begin to spread at a much higher speed and significantly bigger reach.

### **4.1.3 Online social shopping**

#### Social shopping networks have yet to take off

With the popularity explosion of online social networks, one of the trends has been to make shopping a social activity with the creation of social networks exclusively dedicated to shopping. Despite the great promise of such a concept, there have been no companies in this market that have achieved anything resembling the success of Facebook. Moreover, only a handful of specialized social networks have truly been successful, such as Twitter, LinkedIn and Pinterest (Bloomberg, 2012).

#### There is high potential for social shopping networks

Nevertheless, the potential for shopping as a social activity exists due to the nature of the influence and trust between consumers (Subramani and Rajagopalan, 2003) and their enjoyment as a motivator for using social networks (Lin and Lu, 2011).

Consumers are flooded with product information online, much of which is irrelevant to the user and has little or no personalization (Shih, 2009). The amount of information received by any user is too extensive, which is why social filtering,

through social shopping, can help in creating a method to receive relevant and trusted information about products and services (Shih, 2009).

By implementing social filters, Shih (2009) notes that firms might be able for the first time to "effectively target ads without annoying audiences or triggering privacy concerns". If it is true that our e-mail inboxes receive much unwanted information, by limiting information to that provided by trusted friends and family members, it just might be possible to effectively receive product information.

#### *It combines social networking with online shopping features*

Besides the shopping features used by electronic commerce sites, such as product search, price comparison and recommendations of similar items, social shopping sites offer the possibility to create a personal profile where personal information can also be displayed (Rainer and Christian, 2011), similar to social networks such as Facebook.

While traditional online shopping companies and technologies focus on the usefulness and efficiency of the shopping experience (Shen and Eder, 2009), the essence of social shopping lies in making it a social experience to be shared with friends, while also providing the efficiency of online shopping (Rainer and Christian, 2011).

Naturally, these sites allow for purchases to be made, and are experiencing high popularity growth rate (Rainer and Christian, 2011), although not high enough to compare with the more established online social networks. Still, because of the potential the idea holds, venture capital invested in the market has been very high in recent years (Rainer and Christian, 2011)

#### *Female consumers are the main users*

Although online social shopping is still in its infancy and no dominant firm has emerged, the research performed thus far about user population indicated that it is dominated by women (Dennis, et al., 2010). Similar to general social networks, women dominate social shopping, as the activity of shopping is seen as more enjoyable for women than for men (Dennis, et al., 2010).

#### *Other consumers are open to social shopping*



Even though women spend more time shopping online (Dennis, et al., 2010), the rest of the online consumers are also actively pursuing social shopping, or at least open to the idea of it. Lenhart et al. (2010) point out that only 48% of consumers purchased goods online. Furthermore, research by Cha (2009) revealed that almost half of all consumers would visit social networking sites to actively search for and discuss holiday gift ideas, and almost one third said they would purchase products directly through social networks. One possible reason for the data is the absence of a strong social shopping platform.

However, the numbers indicate the openness for the concept, as well as the desire for a well-executed network that can allow such activities. 33% of Facebook users are fans of brands, and 60% of these consumers are more likely to purchase or recommend to a friend after liking a brand. (Harris and Dennis, 2011)

## **4.2 Descriptive statistics**

In this part of the section we will focus on analyzing the characteristics of the respondents to our survey. The objective is to validate that the target group of the surveys has been correctly surveyed. See appendix B for a detailed description of the descriptive statistics.

In addition to the descriptive statistics, these are some of the general characteristics of the sample according to the results of the survey that we think are important to remark:

- All respondents have access to at least one online social network, with Facebook being the most popular one.
- Out of 212 total respondents, 126 actively use 2 or 3 online social networks (59%).
- Almost all respondents are from Western Europe and North America. Out of 212 respondents, 139 are from Western Europe, 42 are from North America and 31 are from the rest of the world.
- Out of 212 respondents, 140 are between 21 and 25 years old (66%).
- Out of 212 respondents, 118 are women (56%).
- On average, respondents buy fashion articles at least once a month.

As we can see, the average profile of the respondent of our survey is a woman, aged between 21 and 25, with access to 2 or 3 social networks (being Facebook one of them) and that on average buys fashion articles at least once a month. Before we launched the survey, we wanted to target this type of fashion consumer profile (see Target groups section in Methodology) so we are satisfied with the targeting results of our survey for this master thesis.

## 4.3 Sample size

For our econometric analysis, we consider as a total population the number of undergraduate and graduate student in the European Union and North America. According to the Eurostat (2011), in the EU there were 19,847,000 students and in North America there were 20,428,000. The total population in our analysis is 40,275,000 students.

In our study, we consider a confidence level of 95% and a confidence interval of 7. With these values, the sample size that is required is 196 observations.

At the time we closed the survey, 230 respondents had started answering the survey and 212 actually finished it, so the sample size for testing the hypotheses will be 212 observations. According to the total population, confidence level and confidence interval, we consider the sample size to be sufficient.

## 4.4 Hypotheses test

### 4.4.1 Hypothesis 1 test

**Hypothesis 1: sharing information between consumers in fashion shopping is a reciprocal process.**

According to the customer behavior model, the exchange of information between consumers is a reciprocal process. We have formulated our first hypothesis based on the theory we have described in theoretical framework section.

So, according to our hypothesis, as the respondent's contacts share more information about their purchases, the user should be willing to share more information about his own shopping decisions and preferences. Therefore, we expect the parameter  $\beta_1$  to have a positive value ( $\beta_1 > 0$ ).

The following figure shows the results of the linear regression in which the dependent variable is the degree to which the respondent is willing to share information about the fashion items she or he buys, and the independent variable is the degree to which the respondent's contacts share information about the fashion items they buy.

Source	SS	df	MS	Number of obs =	212
Model	225.64535	1	225.64535	F( 1, 210) =	128.25
Residual	369.486725	210	1.7594606	Prob > F =	0.0000
				R-squared =	0.3792
				Adj R-squared =	0.3762
Total	595.132075	211	2.82053116	Root MSE =	1.3264

var2	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
var1	.6622296	.058477	11.32	0.000	.5469524 .7775067
_cons	.8773744	.2265517	3.87	0.000	.4307675 1.323981

Figure 4: Hypothesis 1 linear regression STATA output

### **Fitness of the OLS regression**

According to the STATA output, the value of R-square in the first regression is 0,38. As we stated in the Methodology section, our target for the R-square value is within the range 0,25-0,50. This we consider the fit of this regression good enough when it comes to our model explaining a great proportion of the sum of squares. The F-test shows that the value of R-square is valid from a statistical point of view.

In conclusion, we believe that in statistic terms the fitness of the OLS regression is satisfactory to validate the model.

### **Parameters**

According to the data obtained from the OLS regression, these would be the values of the parameters in the regression model:

$$\beta_0 = 0,877$$

$$\beta_1 = 0,662$$

Where,

X = degree to which the respondent's contacts share information about the fashion items they buy.

Y = degree to which the respondent is willing to share information about the fashion items she or he buys.

In both parameters, the p value is very close to zero. The significance level of the regression for both parameters is extremely high. We conclude the hypothesis that

the dependent variable is influenced by the independent variable is a true hypothesis.

### **Implications of the hypothesis result**

The value of the parameter  $\beta_1$  shows that the degree to which the respondent's acquaintances share information about the fashion items they buy has a positive effect on the degree to which the respondent is willing to share information about the fashion items she or he buys. Therefore, it is validated that information exchange in the fashion shopping processes is indeed a reciprocal process. From the result, it can be inferred that when a subject receives information about three fashion items, she or he is willing to share information about two items; the value of  $\beta_1$  is approximately two thirds.

However, the hypothesis test result has provided us an additional insight that we did not consider when we formulated the hypothesis. Even if individuals receive a minimum amount of information from their contacts about fashion products, they still will tend to share the information they gather. We have reached this conclusion because the value of  $\beta_0$  is positive ( $\beta_0 = 0,877$ ); that is, even if users receive the minimum possible amount of information, according to the hypothesis test result, consumers will still share information about their purchases. On the other hand, we find quite relevant that the value of  $\beta_1$  is lower than 1 ( $\beta_1 < 1$ ). That means that on average, for each additional unit of information users receive, they are willing to give less additional information than what they receive.

In opposition to the classic economic theory that states that rational economic agents will always prefer more than less, the modern behavioral economics theory predicts that individuals have aversion for inequity (Fehr and Schmidt, 1999). According to the modern behavioral theory, the value of  $\beta_1$  should be close to one, and the value of  $\beta_0$  should be close to zero. In order to illustrate this phenomenon more visually, we will draw in a single chart both functions: the function we obtained in our OLS regression ( $Y = 0.877 + 0.662X$ ), and the function the aversion for inequity theory would predict ( $Y = X$ ).

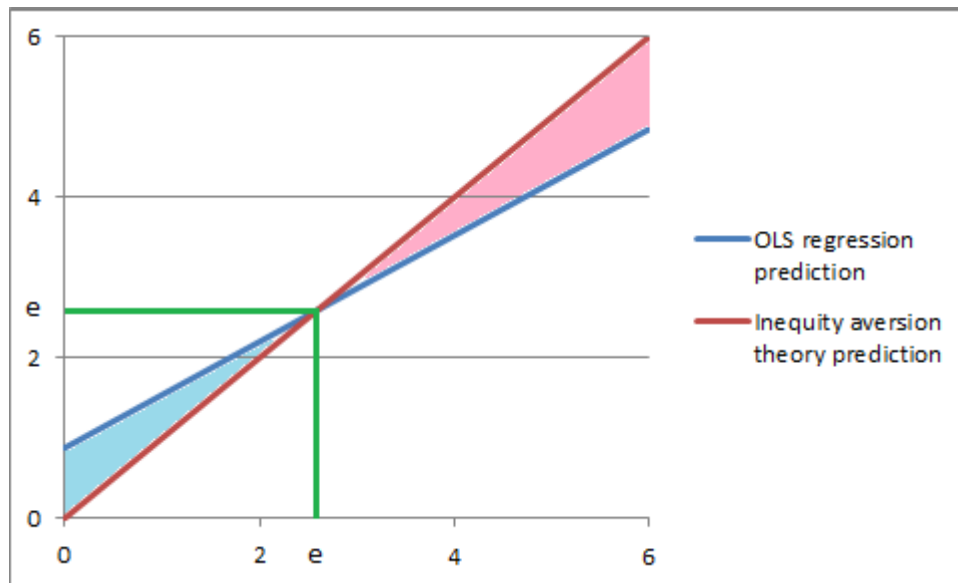


Figure 5: OLS regression and inequity aversion theory prediction functions

The reason both functions are limited to a maximum value of the variables of six (being zero the minimum value) is that in order to build the OLS regression, respondents were asked in the survey to rate in a seven point scale the degree to which the respondent's contacts share information about the fashion items they buy and the degree to which they would be willing to share that information<sup>1</sup>.

According to our model, the equilibrium point ( $e$ ) is 2,59. Users who receive information below this level will give away more information than what they ought to according to the standard behavioral economics theory (blue shadowed area in the chart). In this case, the consumer behavior model is able to explain why consumers would be willing to give more information than what they receive. In the theory section we explained that one of the primary needs human beings have is to interact with their environment. In the context of knowledge sharing, consumers will always have an incentive to share what they know because this would increase their prestige within their social environment (Marglin & Marglin, 1990), even in those cases when they do not receive as much information as they give.

On the other hand, users that receive shopping information from their friends at a level above 2,59 will provide less information than what they ought to (red shadowed area in the chart). In this case, the behavioral economics theory of inequity aversion fails to explain why consumers would give less information than what they receive. The most reasonable explanation we find to understand this phenomenon is that the value of information is not easily quantified by consumers; when they provide or receive an unequal amount of information they cannot easily

<sup>1</sup> In the survey, the minimum value was one instead of zero and the maximum value was seven instead of six.

perceive the extent of the inequality. It is important to mention that the inequity aversion theory has been validated with experiments in which a valuable asset was at stake; in these experiments the most commonly used asset has been money. The perception of fashion consumers who exchange information with their environment is flawed by the unquantifiable nature of information in the context of fashion shopping, so it is possible that the inequity aversion theory is not applicable to those processes in which invaluable assets are at stake.

It is important to remark that in our model the lack of information or knowledge to be shared is not an explanation to why individuals share less information than what the theory of inequity aversion would predict: in the survey we intentionally phrased the question to emphasize how much information regarding fashion products the customer would be willing to give, not how much information the consumer actually provides to his contacts. We did so in order to eliminate any bias related to the amount the information each respondent actually possesses.

According to our model, the proportion of users who would selfishly receive more information than what they ought to give slightly outnumbers the proportion of users who generously provide more information than what they ought to receive. As a matter of fact, in our survey the average value of  $X$  is 3,55 and the average value of  $Y$  is 3,23 (see appendix 2). That is, on average, the degree of information that consumers receive from their network in making fashion shopping decisions is higher than the degree of information they would give.

In order to quantify this inequity, we have calculated the values of the red and blue shadowed areas in figure 5:

$$\text{Value of the red shadow area} = \int_{2.59}^6 X - \int_{2.59}^6 0.877 + 0.662X = 14.65 - 12.76 = 1.89$$

$$\text{Value of the blue shadow area} = \int_0^{2.59} 0.877 + 0.662X - \int_0^{2.59} X = 4.52 - 3.35 = 1.17$$

In quantitative terms, the difference between the value of those who would receive more information than what they should give, and the value of those who give more information than what they would receive is 0,72 (1,89 - 1,17). That is, consumers will selfishly retain 61,54% (0,72/1,17) more information than what they would give away altruistically.

#### 4.4.2 Hypothesis 2 test

**Hypothesis 2: the most active consumers in terms of information search are willing to proactively share information about what they buy as well.**

The objective of this hypothesis test is to prove that in the information diffusion processes in social networks, those consumers that are more interested on the information their networks can provide will operate as strong communication nodes. In other words, consumers who gather large amounts of information will distribute it as well.

In the test of the second hypothesis we considered the following variables: the independent variable is the extent to which consumers are interested in what their friends buy, and the dependent variable is the degree to which the respondent is willing to share information about the fashion items she or he buys.

The results obtained with STATA are the following:

Source	SS	df	MS	Number of obs = 212		
Model	233.075244	1	233.075244	F( 1, 210) = 135.19		
Residual	362.056831	210	1.72408015	Prob > F = 0.0000		
Total	595.132075	211	2.82053116	R-squared = 0.3916		
				Adj R-squared = 0.3887		
				Root MSE = 1.313		

var2	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
var3	.6227874	.0535637	11.63	0.000	.517196	.7283788
_cons	.6735743	.237359	2.84	0.005	.2056626	1.141486

Figure 6: Hypothesis 2 linear regression STATA output

**Fitness of the OLS regression**

The value of R-square in this regression is 0,39. As we said in the previous hypothesis test, we consider this level of fitness good enough. Again, the F-test shows that the value of R-square is valid from a statistical point of view.

In conclusion, we believe the fitness of the OLS regression is satisfactory to validate the second hypothesis and error term has no relevance in this context.

**Parameters**

According to the data obtained from the STATA output, these are the values of the parameters in the regression model:

$$\beta_0 = 0,676$$

$$\beta_1 = 0,623$$

Where,

X = degree to which the consumers are interested in what their friends buy.

Y = degree to which the respondent is willing to share information about the fashion items she or he buys.

The p value of  $\beta_1$  is practically zero. For  $\beta_0$  its p value is not as low as in the first parameter but it is below 0,05 still, which is our benchmark to validate the results from the regression. The significance level of the regression for both parameters is very high, being higher for  $\beta_1$  than for  $\beta_0$ . We conclude the hypothesis that the dependent variable is influenced by the independent variable is a true hypothesis.

### **Implications of the hypothesis result**

According to the positive value of  $\beta_0$ , even if individuals show little or no interest in what their fellow contacts buy or are interested in, consumers still tend to share information about the fashion articles they buy with their acquaintances. As we stated in the theoretical review, human beings are social beings and one of the needs we all have is to share with our environment what we think, like or wish; regardless of the level of interest we may have towards others' preferences or shopping behavior. By sharing information with their networks, consumers show that they have more knowledge and this increases their prestige within the group (Chu and Kim, 2011).

The positive value of  $\beta_1$  shows that there is a positive correlation between the interest consumers have on the fashion items their contacts buy or what they think about them, and the intensity to which the consumer proactively shares the information gathered with her or his social network.

In terms of the theory we have been discussing before regarding communication patterns in social networks, the OLS regression supports the fact that there are strong nodes in shopping information distribution channels, particularly in the fashion market (Mislove, et al., 2007). We assume that those who show more interest are more likely to search more intensely what their contacts buy or like and, according to the results of the regression, these individuals will be the strong nodes that in social networks communication will diffuse the information they gather in a more widespread fashion.



### 4.4.3 Hypothesis 3 test

**Hypothesis 3: the consumers who are interested in what their contacts buy or like acknowledge that this information would influence what they will decide to buy.**

The STATA output shows the results of the linear regression in which the dependent variable is the degree to which consumers think that what their networks buy and like will influence their own shopping decisions, and the independent variable is the interest consumers have on what their contacts buy or like.

Source	SS	df	MS	Number of obs = 212		
Model	303.570725	1	303.570725	F( 1, 210) = 240.52		
Residual	265.0472	210	1.26212952	Prob > F = 0.0000		
Total	568.617925	211	2.69487168	R-squared = 0.5339		
				Adj R-squared = 0.5317		
				Root MSE = 1.1234		

var2	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
var1	.7107579	.0458294	15.51	0.000	.6204133	.8011024
_cons	1.129016	.2030855	5.56	0.000	.7286685	1.529364

Figure 7: Hypothesis 3 linear regression STATA output

### **Fitness of the OLS regression**

According to the STATA output, the value of R-square in the last regression is 0,53; this value means that our model explains most of the sum of squares. As we explain in the Methodology section, an R-square value above 0,50 is exceptionally high in economic research. We consider that, according to the value of R-square, the fit of the OLS regression is extremely satisfactory. On the other hand, the F-test shows that the value of R-square is valid from a statistical point of view.

In conclusion, we believe the fitness of the OLS regression is satisfactory to validate the hypothesis we are testing.

### **Parameters**

According to the data obtained from the OLS regression, these would be the values of the parameters in the regression model:

$$\beta_0 = 1,129$$

$$\beta_1 = 0,711$$

Where,

X = interest consumers have regarding what their contacts buy or like.

Y = degree to which consumers think that what their networks buy and like will influence their own shopping decisions.

In both  $\beta_0$  and  $\beta_1$ , the p value is very close to zero. The significance level of the regression for both parameters is extremely high. We conclude the hypothesis that the dependent variable is influenced by the independent variable is a true hypothesis.

### **Implications of the hypothesis result**

Given that the value of  $\beta_1$  is positive, we can conclude that those fashion consumers who show more interest on what their contacts buy and like are more likely to acknowledge that this information will influence their shopping decisions.

This conclusion seems to be rational; however, how relevant is it in terms of the level of interest consumers have regarding what their networks buy? The independent variable question (*Are you interested in the fashion articles your friends buy or are interested in?*) was framed in a scale ranging from 1 to 7, with 1 being strongly disagree and 7 strongly agree. The average for the total group of respondents is 4,1, which is slightly above the middle option. The average for women is considerably higher, with a value of 4,55. We can conclude that on average, fashion consumers are interested on what their friends and acquaintances buy and like.

On the other hand, the dependent variable question was framed as follows: *If your friends would share online with you what they buy and are interested in, would it significantly influence your shopping habits and decisions?* The average for the total group of respondents is 4,04, which again is slightly above the middle option. Again, women acknowledge a higher degree of influence in their shopping decisions: the average value for women is 4,38. This is in line with what we stated in the theoretical framework section about women being more sensitive to others opinions (Ventakesh and Morris, 2000).

However, we believe that the extent to which consumers think they are influenced by what their fellow friends like is much higher because of the hypothetical bias. The hypothetical bias exists when values that are elicited in a hypothetical context,

such as a survey, differ from those elicited in a real context, such as a market (Harrison and Rutström, 1999).

In the context of the shopping decision making process in fashion, people prefer to think they have characteristics positively perceived in the western culture, such as decision making independence or originality. This is why subjects are biased and, in a hypothetical situation like a survey, will rate the degree to which they are influenced by the preferences of their networks to be lower than what it really is.

We find very interesting the fact that the value of the parameter  $\beta_0$  is much higher than the value of the parameter  $\beta_1$ . The interpretation we give to the high value of  $\beta_0$  is that even if individuals have little or no interest on the fashion items their friends buy or like, they still acknowledge that if they know what their friends are interested in; this information will influence their shopping decisions.

This phenomenon makes a lot of sense in the context of the fashion market, traditionally characterized with very high levels of customer involvement with the product: the way we dress is much more than simply clothing ourselves; it is an essential part in the definition of our personality. The relevance in shaping consumers' identity within a social group pushes to be influenced by what others think, and makes those opinions an important element in our shopping decision process.

In the theoretical framework section we explained that trust is an essential element in communication between friends in social networks. Given that human beings are primarily social, for consumers it is important to know what their contacts think of them even if consumers show no interest in the fashion articles their friends like; it is so because trust is the main reason for asking questions in social networks (Guo, et al., 2011). When these questions are related to a shopping decision process, trust will become one of the major triggers in deciding which fashion articles to buy.

This is why the respondents of our survey acknowledge that if they know what their contacts like, they will be influenced by it when making shopping decisions in fashion, even in the hypothetical case that they are not interested in what their friends like or buy.

## 5. Discussion

*In this chapter the results of the thesis will be discussed, after which the main conclusions will be presented. Further, the implications this study has for management practices in the context of online social networks will also be discussed. Consequently, this section tries to give a concise understanding of how consumers' purchasing decisions in the fashion industry are shaped by information exchange in online social networks, in order to give an insight into how the communication model between consumers made more effective and beneficial for both parts.*

### 5.1 The appearance of information triggers a powerful process

One of the key findings of this thesis is that due to several factors, to be explained shortly, the presence of product information in online social networks begins a chain reaction where information is exchanged at a rapid pace, extends through the network, highly influences people, and ultimately, forces consumers to make shopping decisions, whatever these may end up being. That is, the availability of product information creates the need to make a decision and provides the elements to make such a decision.

In the standard buyer behavior model, as seen in the theoretical framework, the decision making process begins when consumers recognize a problem, and can be triggered by external pressures (Brunel & Pomazal, 1988) such as online social network contacts. Due to the high degree of activity and interaction in social networks (Li, 2007), it is safe to assume consumers are exposed to such information and forced to make a decision in regards to the information presented to them.

As the first tested hypothesis showed, consumers that receive information are willing to share information also, making information exchange a reciprocal process. While this not necessarily mean that consumers will in fact share product information, the environment of social networks and the characteristics of fashion consumers are strong factors that contribute to information exchange between users.

First, the main reason to join social networks, including those of shopping nature, is to interact with friends (Li, 2007), which is a highly attractive feature. Likewise, all three interviewed fashion managers for this thesis (Rikard Frost, Jonas Nyvang, Sonia Garcia) agreed with this statement. Consequently, when a user presents

product information to its contacts, a response is highly probable to maintain the interaction.

Secondly, this appearance of product information in social networks is in fact disseminated because fashion consumers are highly involved with the products (Kang & Park-Poaps, 2011) and therefore, have a genuine interest to explore the information. As such information is received from trusted sources, consumers will very probably feel safe to review it, share it, and make a purchasing decision regarding it. Like Jonas Nyvang from Bjorn Borg expressed during the interview, "you trust the people you know".

Finally, the nature of the fashion industry makes it very likely to the information not only being exchanged between two consumers, as already discussed, but to also be shared and made public to the whole network. As users in high involvement industries, such as fashion, tend to engage in social comparison (Kang & Park-Poaps, 2011) and measure themselves against others, a likely reaction to product information is to demonstrate expertise and seek attention and status, which can be achieved by commenting or sharing product information to the rest of the network.

The research question of this thesis attempts to analyze how product information exchanged in social networks affects shopping decisions in the fashion industry, and based on all the factors discussed, we suggest that the first way it shapes consumers decisions is by creating the need for such a decision when product information appears in the network. As the rest of the discussion will continue to show, the information will travel quickly and with great influence through the network, possibly culminating in a consumer decision.

## **5.2 Information flows quickly through word of mouth communication**

Having established that the presence of information regarding fashion products in online social networks creates the need to make a decision and exchange information due to the reciprocal nature (Hypothesis 1) of relationships in such environment, the next step is to evaluate how information flows through the network.

The second hypothesis the authors tested in this thesis gives us a clue into what happens. Even when users are not interested in what their friends like or buy, the most active users are still willing to share information with their networks, spurring activity. As presented in the theoretical framework, social networks are

kept alive by strong nodes (Mislove, et al, 2008), who are the most influential and most active users.

Since the degree of separation between social network users is very low (Howard, 2008) and users are inclined to share product information for the reasons previously discussed, word of mouth is easily and effectively generated through this medium. Interviews with all three fashion companies firmly prove this point.

In the case of Acne Studios, as Rikard Frost shared with the authors, online word of mouth in social networks about their products was so high that the first Facebook groups about the company and its products were created by consumers, not by the company. Company fans started their own pages within social networks and promoted them due to their emotional affiliation to the firm.

As time went by and the number of fan pages increased, Acne Studios created a unified page where users can share information about Acne's products in order to interact with its consumers. This clearly shows that word of mouth between consumers in social networks traveled faster than the company's efforts to market their own brand.

While this is an extreme case of a highly popular company with a dedicated fan base, other companies, such as testified by the executives from Bjorn Borg and Tuc Tuc World, have noted the power of word of mouth communication in social networks and are using it to their advantage.

Bjorn Borg has encouraged consumers to post images and comments on their Facebook page in order to "generate word of mouth and create user engagement". The main objective for the company in using social networks is to "build a brand", and not necessarily to produce sales.

Likewise, Tuc Tuc World has also embraced social networks as a medium to promote its products with consumers because "people like to share information that way". Word of mouth communication is so strong in social networks that some fashion executives, such as Sonia Corral from Tuc Tuc World, believe the main function of online stores is to market the product, not encourage sales directly. Whether strategically this is the right decision will be explored further in the discussion.

However, the power of word of mouth in a social network environment is undeniable, as all fashion firms we interviewed confirmed. Not only does it have a significantly longer carryover effect than other forms of marketing (Trusov, et al., 2009) but it is also directly correlated with purchase probability (Dellarocas & Narayan, 2006).

## **5.3 Fashion consumers are highly influenced by their networks**

While we have seen that the availability of information induces consumers to exchange it and make a decision, and that such information flows powerfully through the network, the next issue to be discussed is the level of influence that product information in a social network environment exerts over its users.

The short answer to this question is: very high. There are many factors that cause fashion consumers in social networks to be especially sensitive to posted information and therefore, easily influenced and swayed to utilize available product information and make a purchasing decision.

The first factor that explains why fashion consumers are easily and highly influenced by their online networks has to do with the psychological profile of the average user, which is a young female (Cha, 2009; Dennis, et al., 2010). As Ventakesh & Morris (2008) showed in their study, the degree of influence is higher for women, which tend to be more sensitive than men to the opinion of others. The third hypothesis tested in this thesis also reinforces this idea, as women acknowledged that their decisions were influenced by others at a higher rate than men.

Secondly, the motivations behind the use of social networks, especially when exchanging information regarding high involvement products such as fashion items, strongly suggests users are highly influenced by their environment when making decisions for two reasons: presenting an idealized self to others, and being accepted in a desired network of people.

People's ideal self-concept, which is what people wish they were like, as opposed to their actual self-concept (Sirgy, 1982) can be easily manipulated in social networks (Dreighton & Kornfeld, 2007). Consequently, as users aspire to be their idealized self, they can tend to adopt certain postures and share certain opinions that are aligned with their ideal self-concept. This is exemplified by the fact that in Acne Studio's Facebook page user comments is highest when discussing prestigious, expensive and high end products (Rikard Frost, Head of E-commerce and Digital Communications, Acne Studios), which is typically associated with an idealized self.

Nevertheless, it is interesting to find out this does not necessarily reflect in purchasing activity. Although user activity was higher in discussion regarding high end products, actual product purchases are always much more frequent for low priced, discounted products, which ironically are seldom discussed by users online (Rikard Frost, Head of E-commerce and Digital Communications, Acne Studios).

This suggests that although fashion consumers in social networks are highly influenced to participate in product information exchange, largely to present their desired image to their network and make it seem like they will buy such products (Rikard Frost, Head of E-commerce and Digital Communications, Acne Studios), the influence might not be high enough to actually make those purchases. However, this is only one case from one fashion firm, so the results are inconclusive and a further exploration of this issue is needed.

Another fact that supports the high degree of influence exerted over online fashion consumers is the desire to form part of a network. Aligned with the theory of the idealized self, this ideal self-concept is associated with certain groups (Escalas & Bettman, 2003). People "really care about the feedback their friends give them", and many of their actions online are to "show off" to their friends (Frost, Head of E-commerce and Digital Communications, Acne Studios). As a result, users have a tendency to adopt the brands and products associated with their groups. In addition, since collective self-esteem is the highest need fulfilled with participation in social networks (Gangadharbatia, 2008), the desire to behave according to the group is high.

It is highly probably that the behavior exhibited in social networks is not always extended to real life actions, such as in the example from Acne Studios' consumers. Customers comment on products because they want to be associated with the brand (Rikard Frost, Head of E-commerce and Digital Communications, Acne Studios) and the focus of their interaction regarding products is not on the product itself, but on its attributes (Jonas Nyvang, Marketing and Communications Manager, Bjorn Borg) and the emotional aspects of it.

Fittingly, companies like Bjorn Borg, prefer to focus on a "cool way to present the product" by displaying visually attractive images that represent the lifestyle consumers seek, since users seem to be attracted to products because of mostly intangible features, such as hedonic elements (Lin & Lu, 2011).

Notwithstanding, it is still safe to assume that fashion consumers are highly and easily influenced by information exchange in online social networks. The third hypothesis tested confirmed that when users receive or are exposed to information regarding products, they acknowledge they will likely be influenced by it. Considering that people wish to believe they are more independent than what they really are, the real influence is probably higher.

Is this high degree of influence enough to make consumers buy certain products? We are not sure. We have shown that it is enough to make consumers react to the information available to them and that it plays a part in their purchasing decisions, but to assert that it produces the desired purchase behavior would be a stretch at this point of our research.



## **5.4 Fashion firms have been very slow to react to this phenomenon**

Considering the possibilities for fashion firms during product information exchange within social networks, they have been painfully slow in adapting to the new customer communication model. The availability of fashion product information in social networks triggers information exchange between consumers, creates the need to make a decision, pushes information through the network, generates word of mouth communication, and has proved to be highly influential in the decision making process. Still, companies are trying to figure out the phenomenon and catch up with it.

Despite the vast potential the above conditions represent for companies, the social media and online communication with customers described by the fashion executives interviewed were reactive and non-strategic. Although we are conscious that a sample of three interviews is not statistically relevant, the purpose of the interviews was only to find discrepancies with the quantitative results of our quantitative based study, as well as to gather new insights on the phenomenon.

Even though companies are aware of the power of social networks as a medium to exchange fashion product information, they are observing the phenomenon in an effort to understand it, not acting decisively or using it strategically.

Tuc Tuc World created a Facebook page because "all the other companies do it" (Sonia Corral, Marketing and Social Media Manager, Tuc Tuc World), engaging in the social media world to not be left behind, but without a clear and focused strategy. Similarly, Acne Studios reacted late. As previously mentioned, it was not the company, but the company's fans, which created the very first company pages on Facebook (Rikard Frost, Head of E-commerce and Digital Communications, Acne Studios). Eerily close to Tuc Tuc, Acne Studios' efforts in social media "were not a strategic decision (Rikard Frost, Head of E-commerce and Digital Communications, Acne Studios), but an inevitable reaction to the new circumstances.

In contrast to Tuc Tuc World and Acne Studios, Bjorn Borg was not a company that passively reacted to the growing influence of social media. The company created fan pages where consumers can post pictures, comments, interact and focus their communication and activities around the brand and its values (Jonas Nyvang, Marketing and Communications Manager, Bjorn Borg). While not severely behind like Tuc Tuc World and Acne Studios, Bjorn Borg is only halfway in its efforts to effectively use social media and promote its products. Their objective is to build

and market the brand, not generate sales (Nyvang, Marketing and Communications Manager, Bjorn Borg).

Nevertheless, when we consider how available product information generates exchange and greatly influences consumer behavior -such as the results of our thesis show- to not use social networks with the purpose of generating sales appears shortsighted.

## **5.5 The current consumer communication model is becoming obsolete**

Perhaps the greatest implication for management theory as a result of our study is that the standard consumer communication model is rapidly becoming obsolete. The growing importance of online social networks, the declining effectiveness of traditional advertising, the interconnectedness of consumers and the ways the influence each other all point towards a newer model that would better take advantage of the new circumstances.

If customers are no longer significantly influenced by traditional advertising methods (Clemons, 2007) and social networks are the main communication medium used by young people (Li, 2007), the logical conclusion is that a new way to interact with customers is needed. However, such model should not stop at only building the brand, like Bjorn Borg does, but should instead aim to take complete advantage of the way customers exchange information between them and influence each other.

The availability of information triggers information exchange because of the law of reciprocity, such as our first hypothesis proved. In addition, information travels due to the high activity levels of the strong nodes that hold the network together, generates word of mouth and the degree of influence between fashion consumers in making decisions is very high.

Consequently, merely inducing a user to exchange information would begin a chain reaction that could possibly result in a sale. However, companies like Bjorn Borg limit themselves to promoting the brand while waiting for the right way to monetize consumer interaction in social networks.

While it is true that the main objective of social network users is to interact and enjoy instead of exchanging product information or buying products, the fact that users tend to share if someone else does, and thus, engage in information exchange, leads the authors to believe that the full range of possibilities has still not been explored.

In order to capitalize on the high degree of exerted influence and trust between users for them to propagate a message, companies need to be a part of the social network, and not just broadcast, but add content and interact as the rest of the users (Weber, 2009), which most firms are not currently doing.

Only by generating conversation by producing relevant and appealing information to people in a social context will successful word of mouth be generated in the platform (Weber, 2009). And as strong nodes guide the network, firms must recruit highly active users to promote their messages and distribute product information, since other users tend to be influenced by them (Miller, et al., 2009).

Even though social networks are at the center of the next technological revolution, the lack of a current solid business model and the consequent tentative efforts from companies makes clear that the future of online social networks as a channel to exchange product information and induce purchasing decisions is unclear, but promising nonetheless.

This thesis has shown that fashion consumers will tend to share information when they see other users do so and are highly influenced by their network to make a decision. Whether this decision will result in product sales remains to be seen. As Shih (2009) clearly states regarding the future of social networks for companies, "we don't know the specifics, but we do know it will be big".

## 6. Conclusion

*In this chapter, we will attempt to answer to our research question and to summarize the empirical contributions of this master thesis. In addition, the limitations of the study will be explained and suggestions for further research will be made.*

### 6.1. Answer to our research question

The question this thesis attempted to answer is the following: How does the exchange of product information between consumers in online social networks shapes shopping decisions in the fashion industry? The results of our research has brought forward a clear answer: It shapes it by creating the need for information exchange, generating word of mouth communication that spreads through the network, and as result, inducing and heavily influencing fashion consumers to make a decision that will fit with their network's accepted behavior.

The first hypothesis tested in our quantitative based study showed that a consumer is willing to share information, especially if other people in their network do the same. Because of the reciprocity principle, consumers that receive information feel obligated to send information as a result, beginning the exchange of information. Consequently, the availability of product information will potentially begin the process of information exchange, as it creates the need to answer to the information provided.

The second hypothesis tested concluded that if a consumer is interested in what its friends and acquaintances buy and like, the consumer will be willing to share information. Because this behavior is not related to reciprocity, such as in the case of the first hypothesis, this means that interested consumers will share information unconditionally, solely because of their interest. Consequently, regardless of any potential lack of information, there will always be strong nodes that guide and shape their network by creating information, and therefore, potentially generating word of mouth communication.

Our third and final tested hypothesis concluded that fashion consumers admit that knowledge of decisions taken by friends regarding product purchases or interests will likely influence their own decisions. Further considering the ample tendency of fashion consumers to be highly influenced and behave according to an image, as well as people's exaggerated perception of independence in decision making, makes clear that product information exchange between fashion consumers in social networks not only creates the need to make a decision, but also contribute to the decision being made.

## 6.2. Empirical contributions

We believe that our research has important implications for buyer behavior and social network behavior theory, research methodology, and more importantly, for practitioners.

### **Implications for theory**

To determine how the exchange of product information in social networks shapes shopping decisions in the fashion market, we needed to review and connect two very different theories: one that explains how consumers behave (standard buyer behavior model) and one that explains how social network users behave (social network behavior model).

By effectively connecting key sections of both major theories and finding how they influence each other, we were able to determine three hypotheses that if proved, would begin to explain in a holistic way how users in social networks influence each other while exchanging product information. As such, we have brought forth what can be described as the “social network product information exchange behavior theory”.

As regular consumers, senders and receivers have intrinsic motivations to share information, but in a social network platform, information is exchanged to increase individual and collective self-esteem, which causes *product information exchange in social networks to be a reciprocal process*. Furthermore, since consumers seek positive reinforcement after shopping but different cognitive and emotional needs are satisfied through social network interaction, *the most active consumers in terms of search behavior are also the most active in terms of information sharing*. Finally, while it is known that referrals from acquaintances and friends are the most influential information sources and social approval is gained by social network interaction, we found that *knowing our social network's product opinions and activities directly influences our shopping decisions*.

### **Implications for research methodology**

As a relatively new phenomenon, studies on online social networks tend to be highly qualitative, since it is definitely hard to measure in traditional terms the impact it has in consumers and understand how this shapes their decisions. Consequently, we decided to focus our research on quantitative results that confirmed our hypotheses while at the same time adding the needed qualitative

explorations and analysis needed to understand an issue largely concerned with human behavior.

The contribution to research methodology, therefore, is the efficient combination of quantitative and qualitative methods that together help understand a phenomenon and complement each other when analyzing the research results. While this approach seems unconventional, our results are more solid and can be validated more easily than if we had done otherwise.

### **Implications for practitioners**

The results of the three tested hypothesis suggest the implications for management are many. Since the availability of product information spurs information exchange that can spread quickly and influence consumers into making certain decisions, fashion firms could find a way to disseminate product information in social networks and through consumers exchanging the firm's information, influence the rest of the consumers into making a purchasing decision.

Not only can fashion firms begin the information exchange process by providing selected product information in social networks, but this could be done more effectively by targeting the most active consumers in terms of sharing behavior to reach a bigger audience in the smallest amount of time. When companies find a way to do this correctly, specific products could gain a high degree of exposure and consumer awareness in very little time, and the exchange of such product information and peer influence, as proved in our research, would force consumers to make a shopping decision regarding said product.

While this does not necessarily guarantee that company desired products would become popular or successful, it is at least safe to say that the quick information exchange between consumers would inform companies of the industry trends and accurately reveal if a product would be successful or not. As a result, the knowledge firms have about consumer preferences could increase exponentially.

Furthermore, other high involvement industries that share the same user profile as the fashion industry could adopt a similar strategy. In addition, to do this effectively, the consumer communication model should be adapted when considering that social networks have become the primary communication platform between consumers.

Specifically, since the standard communication model between firms and consumers is outdated because it does not take social network behavior into serious consideration or uses said medium effectively, to interact directly with potential consumers in social networks and use the power and influence of the

platform could go a long way into effectively launching new products and gaining new customers.

Nevertheless, fashion firms, exemplified by the ones interviewed as part of our study, have still not fully adapted to the new environment and possibilities as a result of it, their forays into social networks have been reactive so far.

### **6.3. Thesis limitations**

This thesis is subject to several ineludible limitations. First, although the quantitative survey sample size is large enough to validate the tested hypotheses as accurate regarding fashion consumers as a whole, the geographical distribution leaves the possibility that consumers from certain countries or regions do not exhibit the same behavior or tendencies, or that the sample size from a certain region or country is not large enough to validate the hypothesis at a local level, even when considered together the results are valid for the analyzed group as a whole.

Secondly, to gain insights regarding company relationships with consumers in social networks and corroborate the implications for management of product information exchange in the social network platform, the sample size of three qualitative interviews with fashion executives is not large enough to consider the findings as statistically valid. However, when considering that the focus of our research is quantitative and based on the quantitative survey and the linear regressions that prove the hypothesis, the small number of qualitative interviews is just a complement to the main findings of the thesis and as such and should be taken as such.

Thirdly, the results of the study, both quantitative and qualitative are subject to the veracity of respondent's answers. It is possible that both survey respondents and fashion executives were not completely truthful when answering our questions. Survey respondents, while anonymous when completing the survey and therefore, not induced to project a specific image and bend the truth to fit with such image, are still subject to a lack of self-knowledge or incorrect perception of their behavior in social networks. Still, this limitation is applicable to any survey and is therefore unavoidable. On the other hand, fashion executives might have felt the need to project a certain company image or to withhold sensitive information and consequently, not given totally sincere answers.

Fourth, the nature of an exploratory study on a recent, understudied phenomenon forced us to analyze product information exchange in social networks somewhat superficially, as the process is explored at a very general level. The tested

hypotheses concluded that fashion consumers are willing to share product information if other contacts do so, are willing to share information if they are interested in the information of others, and acknowledge information from contacts influences their behavior. As such, the conclusions only provide a general view of how information exchange shapes consumer decisions, but not the specifics and details of how this happens.

## **6.4. Suggestions for further research**

Directly related to the research limitations previously described, further research on the topic could explore what due to the exploratory nature of our thesis was impossible to study within the thesis scope and time frame. Specifically, a more detailed study of each of the three tested hypothesis could be done in order to answer two questions:

First, if influence between fashion consumers has proven to be significantly high, is it high enough to induce certain shopping behavior? And secondly, how can the communication model between firms and consumers be improved to equally benefit both sides?

As a direct result of the factors tested in the first two hypotheses, the third hypothesis proved that influence between fashion consumers is very high in a social network context and that it induces consumers to act a certain way. However, whether this influence is strong enough to make specific purchases is inconclusive. While the theory suggests this is possible, the fact that consumers tend to act online a certain way but in reality behave differently (Rikard Frost, Head of E-commerce and Communications Manager, Acne Studios) makes us believe this issue should be explored further. The results of the study have shown influence is high, and undoubtedly can be strong enough to induce certain purchases. If that is the case, to explore how consumers can be influenced enough to not only exchange information, but make purchasing decisions would be extremely interesting.

Only based on a study of such nature is it possible to create a communication model between consumers and firms that takes into account the power, influence and potential of online social networks. Ultimately, the objective of research on this topic has to be focused on providing useful insights for management, and currently, there is no bigger issue than using social networks as a tool to not only generate user engagement, but also produce sales. Consequently, studies that build on our research would be most useful keeping that in mind.



## 7. References

*References listed in alphabetical order. The interviews are listed at the end of the section*

Alba J. and Hutchinson J. (1998) *Dimensions of consumer expertise*. Journal of consumer research.

Birtwistle et al. (1998) *Customer decision making in fashion retailing: a segmentation analysis*. International Journal of Retail and Distribution Management.

Brassington and Pettit. (1997) *Principles of Marketing*. Pitman publishing.

Bruner, G.C. and Pomazal, R.J. (1988) *Problem recognition: The crucial first stage of the consumer decision process*. Journal of Consumer Marketing.

Cha, Jiyoung (2009) *Shopping on social networking sites: Attitudes toward real versus virtual items*. Journal of Interactive Advertising, Vol. 10, No. 1

Chartrand T.L. (2005) *The role of conscious awareness in consumer behavior*. Journal of consumer psychology.

Chu S. and Kim Y. (2011) *Determinants of consumer engagement in electronic word-of-mouth (eWOM) in social networking sites*. International Journal of Advertising.

Clemons, Eric (2007) *The future of advertising and the value of social network websites: some preliminary examinations*. University of Pennsylvania (Wharton)

Cummings et al. (1995) *Homegrown values and hypothetical surveys: is the dichotomous choice approach incentive-compatible?* The American economic Review

Deighton, J. and Kornfeld, L. (2007) *Digital interactivity: Unanticipated consequences for markets, marketing, and consumers*. Harvard Business School.

Dellarocas, C., and Narayan, R. (2006) *A statistical measure of a population's propensity to engage in post-purchase online word of mouth*. Statistical Science, Vol. 21, No. 2.

Dennis, C., Morgan, A., Wright, L., and Jayawardhena, C. (2010) *The influences of social e-shopping in enhancing young women's online shopping behavior*. Journal of customer behavior, Vol. 9, Number 2.

Dougherty C. (2011) *Introduction to Econometrics*. Oxford University Press.

Engel J.F., Blackwell R.D. and Miniard P.W. (1990) *Consumer behavior*. The Dryden press.

Engel, Cole (2011) *Young consumers in the new marketing ecosystem: an analysis of interactive technologies*. Academy of Marketing Studies Journal.

Escalas and Bettman. (2003) *You are what you eat: the influence of reference groups on consumers' connection to brands*. Journal of consumer psychology.

Eurostat (2011) *Tertiary education statistics*.

Fehr E. and Schmidt K.M. (1999) *A theory of fairness, competition and cooperation*. The quarterly journal of economics.

Gangadharbatla H., (2008) *Facebook me: collective self-esteem, need to belong and internet self-efficacy as predictors of the igeneration's attitudes toward social networking sites*. Journal of interactive advertising.

Greenwald A.G. et al., (2002) *A Unified Theory of Implicit Attitudes, Stereotypes, Self-Esteem, and Self-Concept*. Psychological review.

Gross R. and Acquisti A. (2005) *Information revelation and privacy in online social networks*. ACM workshop on privacy in the electronic society.

Harris, L., and Dennis, C. (2011) *Engaging customers on Facebook: Challenges for E-Retailers*. Journal of Consumer behavior 10.

Harrison G.W. and E.E. Rutström. (1999) *Experimental Evidence on the Existence of Hypothetical Bias in Value Elicitation Methods*. University of Chicago.

Holman R. (1981) *Review of marketing*. Ben M. Edis and Kenneth J. Roering.

Howard B. (2008) *Analyzing online social networks*. Communications of the ACM.

Hsiao, L., Lin, J., Wang, X., Lu, Hsi. and Yu, H. (2010) *Antecedents and consequences of trust in online product recommendations: An empirical study in social shopping*. Online Information Review.

Huang, S., Benbasat, I., and Burton-Jones, A. (2011) *The role of product recommendation agents in collaborative online shopping*. Sauder School of Business, University of British Columbia.

Johnson, E., Moe, W., Fader, P., Bellman, S., and Lohse, G. (2004) *On the depth and dynamics of online search behavior*. Management Science, Vol. 50, No. 3.

Kang, J., and Park-Poaps, H. (2011) *Motivational antecedents of social shopping for fashion and its contribution to shopping satisfaction*. Clothing and Textiles Journal, Vol. 29, No. 4.

- Kumar, N., Lang, K., and Peng, Q. (2005) *Consumer search behavior in online shopping environments*. E-Service Journal, Vol. 3, No. 3.
- Lenhart, A., Purcell, K., Smith, A. and Zickuhr, K. (2010) *Social media and mobile internet use among teens and young adults*. Pew Research Center.
- Lewis, K., Gonzalez, M., and Kaufman, J. (2012) *Social selection and peer influence in an online social network*. Proceedings of the National Academy of Sciences of the United States of America, Vol. 109, Issue 1.
- Li, Charlene (2007) *How consumers use social networks*. Forrester Research.
- Liang, T., Ho, Y., and Li, Y. (2011) *What drives social commerce: The role of social support and relationship quality*. International Journal of Electronic Commerce, Vol. 16, Issue 2.
- Ligas M. and Cotte J. (1999) *Advances in consumer research*. Eric Arnould and Linda M. Scott.
- Lin, K. and Lu, H. (2011) *Why people use social networking sites: An empirical study integrating network externalities and motivation theory*. Computers in Human Behavior.
- Marglin F.A. and Marglin S.A. (1990) *Dominating knowledge: development, culture and resistance*. Oxford University Press.
- Miller, K., Fabian, F., and Lin, S. (2009) *Strategies for online communities*. Strategic Management Journal, Vol. 30, No. 3.
- Mowen J. and Minor M. (2001) *Consumer behavior: a framework*. Prentice hall.
- Pavlou P. and Stewart D. (2000) *Measuring the effects and effectiveness of interactive advertising: a research agenda*. Journal of interactive advertising.
- Priest, A. (2005) *Uniformity and differentiation in fashion*. London College of Fashion.
- Rainer, O., and Christian, H. (2011) *Modeling consumer purchasing behavior in social shopping communities with clickstream data*. International Journal of Electronic Commerce, Vol. 16, Issue 2.
- Schiller, S., Duffy, K., and Sethi, V. (2011) *Serving young adult online consumers: The transcendental role of social media*. Sprouts: Working Papers on Information Systems.
- Shen, J., and Eder, L. (2009) *Determining factors in the acceptance of social shopping websites*. AMCIS 2009 Proceedings, Paper 290.

Shih, Clara (2009) *The Facebook era: Tapping online social networks to build better products, reach new audiences and sell more stuff*. Prentice Hall.

Sirgy M.J. (1982) *Self-concept in consumer behavior: a critical review*. Journal of consumer research.

Stewart J.B. (2012) *When the network effect goes into reverse*. The New York Times.

Teo, T.S.H. and Yeong, Y.D. (2003) *Assessing the consumer decision process in the digital marketplace*. National University of Singapore.

Trusov, M., Bucklin, R. and Pauwels, K. (2009) *Effects of word of mouth versus traditional marketing, findings from an internet social networking site*. American Marketing Association.

Weber, Larry (2009) *Marketing to the social web: How digital customer communities build your business*. John Wiley and Sons.

## **7.1 Interviews**

Frost, Rikard. (May 11th, 2012, Stockholm) Head of e-commerce and digital communications at Acne Studios. (Interview by Redondo A. and Zatarain J.)

Nyvang, Jonas (June 7th, 2012, Stockholm) Marketing and communications manager at Björn Borg. (Interview by Redondo A. and Zatarain J.)

Corral, Sonia (August 20th , 2012, Logroño, Spain) Social media manager at Tuc Tuc World. (Interview by Redondo A. and Zatarain J.)

# Appendix 1: Survey questionnaire

## Social networks usage

1. How many online social networks do you use?
  - a. 0
  - b. 1
  - c. 2-3
  - d. 4-5
  - e. More than 5
  
2. Which social networks do you use?
  - a. Facebook
  - b. Twitter
  - c. Pinterest
  - d. Google+
  - e. LinkedIn
  - f. Myspace
  - g. Other
  
3. How often do you log in to the social networks you use? (Consider all)
  - a. Less than once a month
  - b. Once a month
  - c. Once a week
  - d. 2-3 times a week
  - e. Daily
  - f. 2-3 a day
  - g. More than 3 times a day
  
4. On average, how long do you stay connected to a social network each time you log in?
  - a. Less than a minute
  - b. 1-10 minutes
  - c. 10-60 minutes
  - d. More than one hour
  
5. What do you use social networks for? (Check all that apply)
  - a. To share with my friends things that I think that are interesting
  - b. To see my friends' updates
  - c. To communicate with friends via comments and messages
  - d. To watch friends' pictures

- e. To know what are the latest trends
- f. To subscribe and follow to famous people
- g. To access to information about products and companies
- h. Entertainment with no other purpose
- i. Professional networking

## Shopping habits and information search

6. Do you use the internet for finding information about products you are interested to buy or know more about? (1 strongly disagree – 7 strongly agree)
7. Compared with the information obtained in the physical store, does the information you find on the Internet significantly influence your shopping decisions? (1 strongly disagree – 7 strongly agree)
8. Describe where do you search and find information about products in the Internet? (1 strongly disagree – 7 strongly agree)
  - a. Online search engines (e.g. Google)
  - b. Company websites
  - c. Social networks
  - d. Specialized forums
  - e. Specialized blogs
  - f. Other
9. Do you use the internet to find information about fashion products you are interested in buying or want to know more about? (1 strongly disagree – 7 strongly agree)
10. When finding information about fashion articles, do you trust the information provided by the following Internet sources? (1 not at all – 7 very much)
  - a. Online search engines (e.g. Google)
  - b. Company websites
  - c. Social networks
  - d. Specialized forums
  - e. Specialized blogs
  - f. Other
11. How often do you buy fashion articles in physical stores?
  - a. Never
  - b. Less than once a month
  - c. Once a month
  - d. 2-3 times a month

- e. Once a week
- f. 2-3 times a week
- g. Daily

12. How often do you buy fashion articles online?

- a. Never
- b. Less than once a month
- c. Once a month
- d. 2-3 times a month
- e. Once a week
- f. 2-3 times a week
- g. Daily

13. When finding information about fashion articles that you are interested in buying, how much are you influenced by the following? (1 not at all – 7 very much)

- a. Perception in the store
- b. Expert opinions
- c. Company provided information
- d. Friends and family
- e. Trends and news coverage
- f. Advertising

14. Do you actively exchange information about your fashion articles after buying them? (1 strongly disagree – 7 strongly agree)

### Social networks influence on shopping decisions

15. Do your friends actively share online the fashion articles they buy or are interested in? (1 strongly disagree – 7 strongly agree)

16. Would you actively share with your friends online the fashion articles that you buy and that you are interested in? (1 strongly disagree – 7 strongly agree)

17. Are you interested in the fashion articles your friends buy or are interested in? (1 strongly disagree – 7 strongly agree)

18. If your friends would share online with you what they buy and are interested in, would it significantly influence your shopping habits and decisions? (1 strongly disagree – 7 strongly agree)



## Demographics

19. What is your gender?

- a. Male
- b. Female

20. How old are you?

- a. 16-20
- b. 21-25
- c. 26-30
- d. More than 30

21. Country of origin

22. Country of residence

## Appendix 2: Descriptive statistics

Question number	Question	Mean	Std. Dev.	Max	Min
Q1	How many online social networks do you use?	3,00	0,71	5	2
Q2	Which social networks do you use?				
Q2_1	Facebook	1,00	0,00	1	1
Q2_2	Twitter	0,39	0,49	1	0
Q2_3	Pinterest	0,16	0,37	1	0
Q2_4	Google+	0,17	0,38	1	0
Q2_5	Linkedin	0,51	0,50	1	0
Q2_6	Myspace	0,03	0,17	1	0
Q2_7	Other	0,22	0,42	1	0
Q3	How often do you log in to the social networks you use?	6,08	1,00	7	2
Q4	On average, how long do you stay connected to a social network each time you log in?	2,64	0,76	4	1
Q5	What do you use social networks for?				
Q5_1	To share with my friends things that I think that are interesting	0,73	0,44	1	0
Q5_2	To see my friends' updates	0,80	0,40	1	0
Q5_3	To communicate with friends via comments and messages	0,91	0,29	1	0
Q5_4	To watch friends' pictures	0,71	0,46	1	0
Q5_5	To know what are the latest trends	0,27	0,45	1	0
Q5_6	To subscribe and follow to famous people	0,07	0,26	1	0
Q5_7	To access to information about products and companies	0,19	0,39	1	0
Q5_8	Entertainment with no other purpose	0,33	0,47	1	0
Q5_9	Professional networking	0,51	0,50	1	0
Q6	Do you use the internet to find information about products you are interested in buying or knowing more about?	6,05	1,12	7	1
Q7	Compared with the information obtained in the physical store, does the information you find on the Internet significantly influence your shopping decisions?	5,49	1,27	7	1
Q8	Where do you search and find information about products in the Internet?				
Q8_1	Online search engines (e.g. Google)	6,23	1,06	7	1
Q8_2	Company websites	5,62	1,18	7	1
Q8_3	Social networks	3,59	1,63	7	1
Q8_4	Specialized forums	4,60	1,65	7	1
Q8_5	Specialized blogs	4,08	1,73	7	1
Q8_6	Other	3,80	1,16	7	1
Q9	Do you use the internet to find information about fashion products you are interested in buying or knowing more about?	5,29	1,63	7	1
Q10	When finding information about fashion articles, do you trust the information provided by the following Internet sources?				
Q10_1	Online search engines (e.g. Google)	5,28	1,21	7	1
Q10_2	Company websites	5,21	1,34	7	1
Q10_3	Social networks	4,33	1,43	7	1
Q10_4	Specialized forums	4,81	1,44	7	1
Q10_5	Specialized blogs	4,66	1,50	7	1

Q10_6	Other	3,83	0,98	7	1
Q11	How often do you buy fashion articles in physical stores?	2,93	1,09	6	1
Q12	How often do you buy fashion articles online?	2,03	0,91	6	1
Q13	When finding information about fashion articles that you are interested in buying, how much are you influenced by the following?				
Q13_1	Perception in the store	5,54	1,19	7	2
Q13_2	Expert opinions	4,53	1,57	7	1
Q13_3	Company provided information	4,26	1,26	7	1
Q13_4	Friends and family	5,46	1,20	7	1
Q13_5	Trends and news coverage	4,48	1,43	7	1
Q13_6	Advertising	4,19	1,38	7	1
Q14	Do you actively exchange information about the fashion articles you are interested in before buying them?	4,01	1,64	7	1
Q15	Do your friends actively share online the fashion articles they buy or are interested in?	3,55	1,56	7	1
Q16	Would you actively share with your friends online the fashion articles that you buy and that you are interested in?	3,23	1,68	7	1
Q17	Are you interested in the fashion articles your friends buy or are interested in?	4,10	1,69	7	1
Q18	If your friends would share online with you what they buy and are interested in, would it significantly influence your shopping habits and decisions?	4,04	1,64	7	1
Q19	What is your gender?	1,56	0,50	2	1
Q20	How old are you?	2,38	0,61	4	1

## **Appendix 3: Interviews questionnaire**

### Social networks

- 01. In your opinion, why do people use social networks?
- 02. Do you think people use the online social networks to share and discuss product info? If so, why do you think?
- 03. In a social network platform that allows users to share and discuss product information, which aspects or features do you think are important for user engagement and satisfaction?
- 04. In a social network platform that allows users to share and discuss product information, what do you think is the single most important aspect to engage and satisfy users?

### Company interaction with customers through social networks

- 05. Does your company interact online with social network users, and how?
- 06. Which features of the online interaction you have with social network users are unique?
- 07. What has been the result of this online interaction for your company?
- 08. How do you make the online experience enjoyable for users when interacting with them or allowing them to interact between themselves?
- 09. How do you make the online experience useful for users when interacting with them or allowing them to interact between themselves?
- 10. Why has your company decided to interact with online social networks users in this particular way?
- 11. Why do you think that social network users interact online with your company?

### The future of social networks and fashion

- 12. How do you think that the technology and features of the social network platform could improve in order to improve sharing and discussing product information between users?

13. How do you think your company can improve in its online efforts to interact with consumers and improve sharing and discussing product information between users?

14. What is the main objective your company has in its future efforts to interact online with consumers and allow them to share and discuss product information?

15. Compared with today, how do you believe consumers will interact online with your company and interact between them to share and discuss product information in two or three years?